

Sustainability Statement

Land North of Radstone Fields, Brackley, NN13

A REPORT PREPARED

FOR AND ON BEHALF OF MINTONDALE DEVELOPMENTS LTD

Issue Date:

05 November 2020

Revision NO: Revision Date:



ISSUING OFFICE: Paragon, The Harlequin Building, 65 Southwark

Street, London, SE1 0HR Tel: 020 7125 0112

DATE: 05 November 2020

REFERENCE: 20.0947/AA/NW

REPORT PREPARED BY: Adam Alexander MSc CEng MCIBSE LCEA

REPORT CHECKED BY: Charlie Knox MSc CEnv

SIGNATURE:

For and on behalf of

Paragon Building Consultancy Limited

20.0947 Paragon

PREFACE

NON DISCLOSURE

This document contains confidential information. In consideration of Paragon Building Consultancy Ltd disclosing such confidential information this document should be held and maintained in confidence and should only be disclosed to:

- 1 The Client, Mintondale Developments Limited.
- 2 Professional advisors to the client.
- 3 The Local Authority for the site location.
- 4 Clients permitted assignees established by written assignment.
- 5 Professional advisors of permitted assignees.

This document is issued only to the organisations stated above and on the understanding that this practice is not held responsible for the action of others who obtain any unauthorised disclosures of its contents or place any reliance on any part of its findings, fact or opinions, be they specifically stated or implied.

The confidential information in this document shall only be used for the intended purpose.

FREEDOM OF INFORMATION

Copies of this document may come into the possession of organisations designated under the Freedom of Information Act 2000. Organisations designated in the 'Act' are requested to respect the above statements relating to confidentiality and copyright.

ENQUIRIES

Any enquiries regarding this document shall be directed to Paragon Building Consultancy Ltd, telephone 07733300427, email adamalexander@paragonbc.co.uk

20.0947 Paragon

CONTENTS

DASHBOARD SUMMARY

1.0	INTRODUCTION	2
2.0	PLANNING POLICIES	3
3.0	SUSTAINABILITY ASSESSMENT METHOD	7
4.0	SUSTAINABILITY MEASURES AND STRATEGY	7

20.0947 Paragon

SUSTAINABILITY STATEMENT

CLIENT NAME: Mintondale Developments Ltd

PROPERTY ADDRESS: Land North of Radstone Fields

Brackley

INSPECTION DATE:



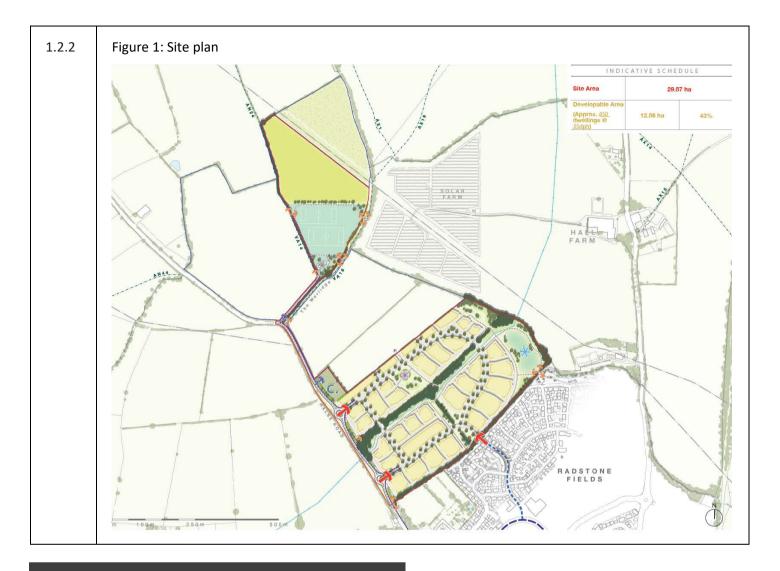
1.0 INTRODUCTION

1.1 Background

- Paragon Building Consultancy Limited has been instructed by Mintondale Developments Ltd c/o Frampton Planning Ltd to prepare a Sustainability Statement for the proposed development Land North West of Radstone Fields, Brackley. The Sustainability Statement has been prepared to support the planning application in response to the local, regional and national legislation the Design and Access Statement and other supplemental environmental reports submitted with the planning application.
- 1.1.2 The main aim of this report is to provide an assessment of the sustainability credentials for the proposed development and to describe how the applicable sustainability policies and standards can be met by the proposed design.
- 1.1.3 The information provided in this report should be treated as indicative at this stage and should be used to inform the planning application for the proposed development with respect to relevant national, regional and local planning policies.

1.2 Description of Developments

1.2.1 The proposed development on this site is described as a residential development comprising up to 450 dwellings, including formal sports provision, public open space and a cemetery together with associated infrastructure including foul and storm water drainage and full details of access arrangements from Halse Road comprising of 4 New access points, 2 primary and 2 secondary. The site plan is presented in Figure 1.1.



2.0 PLANNING POLICIES

This section summarises the relevant energy policy context for the development. The national, regional and local policies and regulations related to energy and sustainability are summarised below.

2.1 National Planning Policy Framework (2018)

- 2.1.1 The National Planning Policy Framework (NPPF) document sets out the Government's planning policies for England and was updated February 2019.
- The NPPF is designed to consolidate all policy statements, circulars and guidance documents into a single, simpler National Planning Policy Framework, making the planning system more user-friendly and transparent. The framework's primary objective is a sustainable development, therefore focussing on the 3 pillars of sustainability. The framework is split into three sections; planning for prosperity (Economic), planning for people (Social) and planning for places (Environmental), each of which outlines guidance to

tackle issues such as housing, transport infrastructure, climate change, business and economic development, etc.

- 2.1.3 In regard to climate change, the NPPF supports a reduction in greenhouse gas emissions and the delivery of renewable and low carbon energy. Climate change is covered in Section 14 'Meeting the challenge of climate change, flooding and coastal change'. In summary the framework advises:
- 2.1.4 To support the move to a low carbon future, local planning authorities should:
 - plan for new developments in locations which reduce greenhouse gas emissions
 - actively support energy efficiency improvements to existing buildings
 - adopt nationally described standards when setting any local requirement for a building's sustainability
- 2.1.5 In determining planning applications, local planning authorities should expect a new development to:
 - comply with adopted Local Planning 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
 - take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption

2.2 West Northamptonshire Joint Core Strategy (December 2014)

2.3.1 Policy S10 – Sustainable Development Principles

In order to achieve the overarching goals of sustainability development will:

- Achieve the highest standards of sustainable design incorporating safety and security considerations and a strong sense of place;
- Be designed to improve environmental performance, Energy efficiency and adapt to changes of use and a Changing climate over its lifetime;
- Make use of sustainably sourced materials;
- Minimise resource demand and the generation of waste and maximise opportunities for reuse and recycling;
- Be located where services and facilities can be easily accessed by walking, cycling or public transport;
- Maximise use of solar gain, passive heating and cooling, natural light and ventilation using site layout and building design;
- Maximise the generation of its energy needs from decentralised and renewable or low carbon sources;
- Maximise water efficiency and promote sustainable drainage;
- Protect, conserve and enhance the natural and built environment and heritage assets and their settings;
- Promote the creation of green infrastructure networks, enhance biodiversity and reduce the fragmentation of habitats; and
- Minimise pollution from noise, air and run off.

A key part of the Government's commitment to meet climate change targets is to reduce carbon emissions through greater use of energy efficiency in building construction and by increased use of low or zero carbon and renewable energy. The use of low carbon and renewable energy represents a significant opportunity over the plan period to reduce carbon emissions, help reduce fuel poverty and contribute to energy security. The Government has been working towards a target to achieve 15% of its total energy to be generated by renewable sources by 2020 and therefore, supports low carbon and renewable energy development across the UK, where the technology is viable and environmental, economic and social impacts are addressed satisfactorily

2.3.3 Policy S11 – Renewable Energy

2.3.2

Applications for proposals to generate energy from renewable sources (including any associated transmission line, buildings and access roads) will be expected to;

Major development and sustainable urban extensions should contribute to reductions in carbon
emissions and adapt to the effects of climate change through the sustainable development
principles (policy S10), so as to minimise energy using sustainable design and construction,
maximise energy efficiency and the provision of low carbon and renewable energy, including
where feasible and appropriate, through provision of decentralised energy.

20.0947 5 Paragon

- Proposals should be sensitively located and designed to minimise potential adverse impacts on people, the natural environment, biodiversity, historic assets and should mitigate pollution. In addition, the location of wind energy proposals should have no significant adverse impact on amenity, landscape character and access and provide for the removal of the facilities and reinstatement at the end of operations.
- All new residential developments (including mixed use) are required to achieve a minimum of level 4 standard in the code for sustainable homes and to achieve the zero carbon standard from 2016 or national equivalent standard, including where appropriate a contribution to community or private energy funds. All new non-residential developments over 500m2 gross internal floor space are required to achieve a minimum rating of at least BREEAM (BRE environmental assessment method) very good standard (or equivalent) or any future national equivalent zero carbon standard from 2019.
- These requirements will apply unless it can be demonstrated that they would make the development unviable.

2.3.4 Policy C2 - New Developments

New housing, employment, commercial and retail development in the four towns of Northampton, Daventry, Towcester and Brackley and primary service villages will be expected to achieve the modal shift targets by maximising travel choice from non-car modes. Development will be required to mitigate its effects on the Highway network and be supported by a transport Assessment and travel plan prepared in accordance with current best practice guidelines as issued by the Department for transport or the relevant local authority. Sustainable urban extensions, as allocated within this plan, will additionally be required to:

- A) provide access via walking, cycling and public Transport routes to a mix of uses including local employment, housing and retail facilities;
- B) ensure that new or enhanced public transport services are secured on occupation of the first dwelling when this is appropriate;
- C) secure the most efficient networks for walking, cycling and public transport within the development;
- D) ensure sufficient density across the site in order to sustain public transport and other local services.

2.3.5 Policy BN7a - water supply, quality and waste water Infrastructure

New development proposals will ensure that adequate and appropriate water supply and wastewater infrastructure is available to meet the additional requirements placed upon it and to ensure that water quality is protected, and as far as is practicable, improved. Development proposals will ensure that adequate wastewater treatment capacity is available to address capacity and environmental constraints. Development should use sustainable drainage systems, wherever practicable, to improve water quality, reduce flood risk and provide environmental and adaptation benefits. To ensure all new housing is water efficient all new development will be required to achieve the equivalent of minimum level 4 standards for water conservation in the code for sustainable homes or any national equivalent Standard from 2016.

2.3.6 Policy BN7 - flood risk

Development proposals will comply with flood risk assessment and management requirements set out in the National planning policy framework and planning practice guidance and the West Northamptonshire Strategic flood risk assessments to address current and future flood risks with appropriate climate change allowances. A sequential approach will be applied to all proposals for development in order to direct

development to areas at the lowest probability of flooding unless it has met the requirements of the sequential test and the exception test as set out within table 6. All new development, including regeneration proposals, will need to demonstrate that there is no increased risk of flooding to existing properties, and proposed development is (or can be) safe and shall seek to improve existing flood risk management. All proposals for development of 1 hectare or above in flood zone 1 and for development in 2, 3a or 3b must be accompanied by a flood risk assessment that sets out the mitigation measures for the site and agreed with the relevant authority. A flood risk assessment must also accompany proposals where it may be subject to other sources, and forms, of flooding or where other bodies have indicated that there may be drainage problems. In order to meet the exception test development must:4

- 1) demonstrate that the development provides wider Sustainability benefits to the community that outweigh the flood risk;
- 2) 2) be located on previously developed land; and
- 3) 3) be accompanied by a site specific flood risk assessment that demonstrates that the development will be safe for its lifetime without increasing flood risk elsewhere and where possible, reduce flood risk overall where flood risk management requires the use of sustainable drainage systems to manage surface water run- off, these should:
- A) separate surface water from foul and combined sewers;
- B) be accompanied by a long term management and maintenance plan; and
- C) protect and enhance water quality.

The design standard for the upper Nene catchment (through Northampton and within the Nene catchment upstream of Northampton) is the 0.5% probability (1 in 200 chance of occurring in any year) event plus climate change. Surface water attenuation should be provided up to this standard

3.0 SUSTAINABILITY ASSESSMENT METHOD

- 3.1 This Sustainability Statement describes the proposed sustainability measures which are proposed for the development to achieve high environmental standards and meet the sustainability.
- 3.2 Although the development will not be assessed using a specific environmental assessment method, the proposed development will still be designed to achieve high environmental standards and meet the sustainability planning policies.
- The following sections of this document will broadly describe sustainability strategies and measures proposed for the development to meet the London Plan and local policy requirements.

4.0 SUSTAINABILITY MEASURES AND STRATEGY

4.1 Energy

4.1.1 An Energy Statement for this development will be prepared when further design details have been made available. This report will describe the design and technology options appraised and proposes the preferred energy strategy option. The energy strategy follows the London Plan Energy Hierarchy: Be Lean,

Be Clean and Be Green principles. The overarching objective is to maximise the reductions in total CO2 emissions through the application of the energy hierarchy with a cost-effective and technically appropriate approach and to minimise the emission of other pollutants.

4.1.2 The development will significantly reduce regulated CO₂ emissions by incorporating a range of passive design and energy efficiency measures, including improved building fabric standards beyond the requirements of building regulations and energy efficient mechanical and electrical plants. These measures will enable the proposed development to exceed Part L 2013 Target Emission Rates (TER) and Target Fabric Energy Efficiency (TFEE) minimum standards through energy efficiency measures alone.

- 4.1.4 The West Northamptonshire Policy encourages the utilisation of decentralised energy networks, where appropriate. An investigation has been carried out to identify existing and planned district heating networks in the vicinity of the site. It has been identified that is no local or likely district heating network adjacent to the site.
- 4.1.5 Electrical panels and direct hot water cylinders will be installed to supply hot water and space heating to the residents. This reflects the recent changes to the SAP10 carbon factors for electricity.
- 4.1.6 It is anticipated that by implementing the energy efficient design, by incorporating enhanced building fabric standards and by using energy efficient systems, the site has a potential to reduce the regulated CO₂ emissions below the carbon baseline without contribution from low carbon or renewable energy sources.
- 4.1.7 The Energy Statement will demonstrate that the proposed energy strategy can achieve regulated CO₂ savings which is equivalent to circa 10% reduction when compared to the regulated CO₂ baseline using SAP10 carbon factors and the application of solar panels typically 4-6 panels per property. This demonstrates that the proposed energy strategy can meet the local CO₂ reduction targets.

4.2 Water

- 4.2.1 In response to the West Northamptonshire Policy, all dwellings and within the proposed development will be provided with water efficient fixtures and fittings to reduce water consumption. The dwellings will be designed to reduce their water consumption to 105 litres of water per person per day. Potable water reduction measures such as flow restrictors to taps and showers, and dual flush toilets will help reduce water consumption, place less of a burden on the fresh water infrastructure and reduce water bills for the homeowners.
- 4.2.2 The proposed water conservation measures and technologies will be detailed and explained in the Home User Guide pack to ensure all homeowners are aware of these technologies installed, the potential benefits they bring and how to het optimal benefit out of them.

4.3 Materials

- 4.3.1 The energy that has been used during manufacture, processing and the transportation of the materials to site, contributes to embodied carbon emissions. These emissions shall be minimised by selection of materials for walls, floors and windows that are characterised by reduced environmental impact.

 Brick is made from some of the earths most abundant and natural materials, is 100% recyclable and is frequently retained on buildings when renovated. It can also be reused in other buildings. All timber and timber-based products used on the project will be legally harvested and traded timber.

 Any opportunities to re-use and/or recycle demolition materials will be identified and pursued, where
- 4.3.2 In addition, the insulation will be specified with a global warming potential (GWP) of less than 5 where feasible.

4.4 Flood Risk

feasible.

- 4.4.1 The West Northamptonshire Flood Risk policy require the minimisation of flood risk and reduction of surface water flow from the site.
- 4.4.2 The proposed development site lies in an area designated by the EA as Flood Zone 1 and is outlined to have a chance of flooding of less than 1 in 100 in any year event. No Floodwater storage mitigation measures are therefore proposed.

With an agreement on suitable connection / outfall point, and upgrading of the existing foul sewer network and water treatment facilities by the water authority, will ensure there is no risk of flooding from the foul sewer proposals. There are also to be the implementation of an attenuation based surface water drainage strategy, ensuring a reduction in flood risk in more extreme events.

4.5 Waste

4.5.1 Waste Storage and Recycling Facilities

4.5.2 To comply with the Local waste planning policy requirements, adequate communal waste and recycling spaces will be provided in line with the Council's requirements. Sufficiency sized waste bins will be provided in each dwelling.

4.6 Waste Minimisation

- 4.6.1 Using good waste management practices onsite will help to reduce disposal costs, avoidance of waste transportation costs, increase recycling of materials and lower levels of material wastage.
- 4.6.2 Design decisions can contribute significantly to the amount of waste generated during the construction of a project. Waste will need to be minimised on site through the design and site measures. This can include cutting on site and reducing site waste.
- 4.6.3 The storage of materials has been identified as an area where material wastage can be reduced. The majority of waste can be due to poor housekeeping. Good housekeeping techniques will be adopted by site operatives to reduce material losses and waste.

Pollution

4.7 Constructions

4.7.1 To minimise air quality impacts during construction a number of best practice mitigation measures will be implemented by the contractor. These measures include effective on-site control of construction traffic and ensuring demolition works are controlled particularly during windy or dry conditions.

4.8 Sustainable Transport Measures

4.8.1 The development is well served in terms of availability and accessibility. All the measures outlined in the Transport Assessment and Transport Plan will reduce reliance on the private motor car and encourage walking, public transport, cycling and other measures to further reduce air quality impacts.

To promote local amenities, public transport facilities including maps and timetables (where required), details of cycle storage etc., residential occupants will be provided with a Home User Guide to try and make the best use of these facilities.

4.9 Noise

4.9.1 A detailed environmental noise survey has been undertaken by InAcoustic in order to establish the currently prevailing environmental noise climate around the site.

The environmental noise impact upon the proposed dwellings has been assessed in the context of national and local planning policies.

The assessment has identified that:

- The site is unconstrained by noise under both baseline and future HS2 conditions.
- All areas of the site are able to achieve BS8233-compliant external amenity levels during the day, without the need for acoustic mitigation.
- No parts of the site will require acoustic mitigation, with the vast majority of the site being capable of providing BS8233-compliant internal sound levels, during both the daytime and night-time, with windows partially open for ventilation.

The noise effects of existing and proposed non-transport related sources potentially affecting the site have also been considered and discussed individually. It has been concluded that none of the identified existing or proposed non-transport related sources currently have nor are considered to have the potential to adversely affect the acoustic environment of the site under future conditions.

4.10 Lighting

4.10.1 Efficient internal and external lighting will be used throughout the development.

Health and Wellbing

4.11 Daylight

4.11.1 The Daylight and Sunlight Study has not been carried out at this stage.

4.12 Private Open Space

1.12.1 South Northamptonshire District Council requires the provision of appropriate open space should be provided as part of the development.

The provision of open space for residents will in part be provided where homes have private amenity space, and through the provision of formal and informal open space within the development as illustrated on the submitted master plan.

4.13 Sound Insulation

4.13.1 Sound insulation will be provided on all separating walls and floors between habitable spaces to meet Building Regulations Part E requirements. A testing regime will be provided by the appointed acoustic consultants at detailed design stage which will then be approved by Building Control.

Management

4.14 Construction Site Impacts

4.14.1 Construction has the potential for major pollution, mostly through pollution to air (through dust emission) and to water via water courses and ground water. To minimise construction site impacts the contractor will adopt best practice policies in respect of air (dust) pollution and water (ground and surface) pollution occurring, as set out in the Air Quality report.

Also, in order to minimise the potential impact of construction on local residents and businesses surrounding the application site, a number of mitigating measures would be implemented and enforced throughout the duration of the construction period. This includes following the Dust Management Plan (DMP) as set out in the Air Quality report Appendix A.

Security

4.15 Security Features

4.15.1 Significant importance has been given to the security of the prospective occupants of the building. The scheme will therefore provide a secure development with a new residential population that provides natural surveillance to surrounding streets. It is proposed to design the scheme to achieve Secured by Design requirements.

The scheme will provide good quality lighting at all entrances to provide convenient, secure access to the development.

The refuse stores and cycle storage area will be provided with a good level of internal and external lighting to encourage responsible use and provide safe access for residents.

4.16 Part Q Building Regulations

4.16.1 The proposed development will comply with Part Q Building Regulations whereby all doors, ground floor and easily accessible windows will be compliant with PAS 24:2012. All entrance doors will be fitted with controlled access for residents.

4.17 Ecology and Biodiversity

4.17.1 South Northamptonshire District Council requires new developments to consider ecology and biodiversity aspects of the development site.

The proposals have sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures. The enhancements provided will ensure a total project biodiversity change of 11.81% in regards to habitats and 10.5% in regards to hedgerows.

4.18 Transport

- 4.18.1 South Northamptonshire District Council has a long term transport strategy outlining their commitment to improving transport options and reducing overall air pollution.
- 4.18.2 A review of the local highway network and collision data in the vicinity of the site indicates that there are no apparent problems in relation to the current operation or safety of the local highways;
- 4.18.3 The site is well located for convenient access to a range of services and amenities in addition to public transport linkages to additional facilities further afield;
- 4.18.4 The site is fully compliant with local and national planning policy guidance;
- 4.18.5 The site access arrangements are safe and appropriate and have been designed in accordance with the prevailing national and regional design guidance;
- 4.18.6 Parking provision on-site will be suitable to negate any adverse impact upon the local highway network; and the proposed development will not have a severe impact on the operation of the local highway network and the surrounding off-site junctions.

4.19 Summary and Conclusions 4.19.1 The sustainability approach has been developed to meet the targets and standards set by the relevant planning policies. The proposed development has incorporated a number of key sustainability measures and features which are summarised in the table below: 4.19.2 This Sustainability Statement demonstrates that the proposed development is targeting good standards of design and build-quality. Much attention has been given to reducing the environmental impact throughout the lifetime of the development and not just during occupation. In conclusion, this report demonstrates that the proposed development can meet the sustainability planning policy requirements. The design team has carefully considered the site's potential environmental impacts, which will be managed and mitigated in line with the relevant planning policies.

Issue	Proposed Key Sustainability Measures
Energy	 Good levels of passive design standards and energy efficiency measures for the whole development can be used to achieve CO₂ reduction.
Water	 All dwellings within the proposed development will be provided with water efficient fixtures and fittings to reduce water consumption below 105 litres per person per day.
Materials	 All timber and timber-based products used on the project will be legally harvested and traded timber.
	 Any opportunities to re-use and/or recycle demolition materials will be identified and pursued, where feasible.
	 The insulation will be specified with a global warming potential (GWP) of less than 5 where feasible.
Flood Risk and Surface	 The development is located within Flood Zone 1 and as such is at a low risk of flooding from fluvial and tidal sources.
Water Management	 The private piped drainage system within the site boundary will be designed so that it does not flood for a 1:30 year event, and any flooding up to the 1:100 year (plus 40% climate change) is done so in a controlled/safe manner.
	 The SuDs attenuation systems will be sized to accommodate the 1:100 year (+40% climate change) rainfall event and ensure the development will not have a negative hydraulic impact on any of the neighbouring third parties.
Waste	 The proposed development will incorporate appropriately sized and located externa waste and recycling storage facilities.
	 Dedicated internal refuse and recycling storage facilities are proposed to accommodate the waste streams associated with the use of residential units.
	 The storage of construction materials has been identified as an area where material wastage can be reduced. The majority of waste can be due to poor housekeeping. Good housekeeping techniques will be adopted by site operatives to reduce material losses and waste.
Pollution	 Insulating materials for the proposed development will be specified with a Global Warming Potential (GWP) of less than 5, where feasible.
	 NOx emissions arising from the operation of the boilers for space heating and hot water systems will be low.
	 Public transport facilities including maps and timetables (where required), details of cycle storage etc., residential occupants will be provided with a Home User Guide to try and make the best use of these facilities and reduce pollution.
	 External lighting will be minimised by incorporating daylight and presence detection as appropriate.
	 High quality sound insulation is expected to be provided on all separating walls between habitable spaces to improve indoor comfort by reducing the likelihood of nuisance due to noise transmission.
	 Use of suitably specified glazing and acoustically attenuated ventilation, have been recommended to reduce to a minimum the adverse impact on health and quality life arising from environmental noise.
Health and Wellbeing	 It is anticipated that all key rooms in the apartments will be achieving good daylight factors.

	 Sound insulation for separating walls and floors will be improved beyond Building Regulations requirements. The proposed dwellings will be provided with gardens or balconies.
Management	 To minimise construction site impacts the contractor will adopt best practice policies in respect of air (dust) pollution and water (ground and surface) pollution occurring.
	• It is proposed to design the scheme to achieve Secured by Design requirements.
	 The development will comply with Part Q Building Regulations whereby all doors ground floor and easily accessible windows will be compliant with PAS 24:2012. All entrance doors will be fitted with controlled access for residents.
	 Residential occupants will be provided with a Home User Guide to help them understand and operate their homes more efficiency and make the best use of local facilities.
Ecology and biodiversity	 A number of recommendations and mitigation measures have been proposed to protect the ecological features of the site to ensure that the development i compliant with legislation and policy regarding these protected and priority species.
	 Ecological enhancements to increase the ecological value of the land will be implemented which will include implementation of native tree and scrub planting scheme, retention of logs on site for hibernacula, and incorporation of bat and bird boxes into the development.
Transport	 The proposed development and mitigation measures have been designed to maximise the potential for sustainable travel and minimise any impacts on the local transport networks. The proposed development is therefore considered to be sustainable and appropriate.