

**Taylor Wimpey &
Barratt Homes**

**Henthorn Road,
Clitheroe**

**Sustainability &
Energy Statement**

December 2012

Ref: 2012-103-009a

Taylor Wimpey & Barratt Homes

Henthorn Road, Clitheroe

**Sustainability & Energy
Statement**

December 2012

Ref: 2012-103-009a

Authorised for and on behalf NJL Consulting LLP



**Rob White
Partner**

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party. Any such party relies on this report at their own risk.

© Report copyright of NJL Consulting LLP



Adamson House
Towers Business Park
Wilmslow Road
Manchester
M20 2YY
Tel: 0845 362 8202
Fax: 0870 130 5579

info@njlconsulting.co.uk
www.njlconsulting.co.uk

Contents

1.0	Introduction.....	2
2.0	Planning Policy Compliance.....	5
3.0	CSH Sustainability Assessment.....	8
4.0	Energy Assessment	18
5.0	Conclusion.....	25

Appendix A – Local Policies

Appendix B - Code for Sustainable Homes Pre-assessment Estimator

1.0 Introduction

Purpose of this Document

- 1.1 This Sustainability and Energy Statement has been prepared by NJL Consulting LLP (NJL) on behalf of Taylor Wimpey Manchester (Taylor Wimpey) and Barratt Homes North West (Barratt Homes), in support of a Reserved Matters planning application for 270 dwellings at Land off Henthorn Road, Clitheroe, Lancashire.
- 1.2 This Statement will show how the development will comply with Conditions set out in the Appeal Decision (APP/T2350/A/11/2161186) dated 26th March 2012 under Condition (25) that necessitate all dwellings must adhere to Code Level 3 of the Code for Sustainable Homes (CSH) assessment method. In addition Condition (3) requires that an energy statement must be prepared to show how the development as a whole can demonstrate a site wide reduction in overall energy requirement by 10%.

‘Condition (25) The dwellings shall achieve a minimum Level 3 of the Code for Sustainable Homes. No dwelling shall be occupied until a final Code Certificate has been issued for it certifying that Code Level 3 has been achieved.’

‘Condition (3) No development shall begin until a scheme identifying how a minimum of 10% of the energy requirements generated by the development will be achieved by renewable energy production methods has been submitted to and approved in writing by the Local Planning Authority. The scheme shall then be provided in accordance with the approved details prior to occupation of the development and thereafter retained.’

- 1.3 The Statement will also demonstrate how the development is sustainable in the form of compliance with National and Local Policy.

The Development

- 1.4 The proposed development is located within Clitheroe, to the south west of the town centre. The site is approximately 15.70 hectares in size. The site is accessed from Henthorn Road to the south east of the site. To the north and west are open fields and beyond the north eastern boundary are residential properties. To the south of Henthorn Road are further fields.

1.5 Figure 1.1 shows the site location and Figure 1.2 the site boundary (red line plan).



Figure 1.1: Site Location

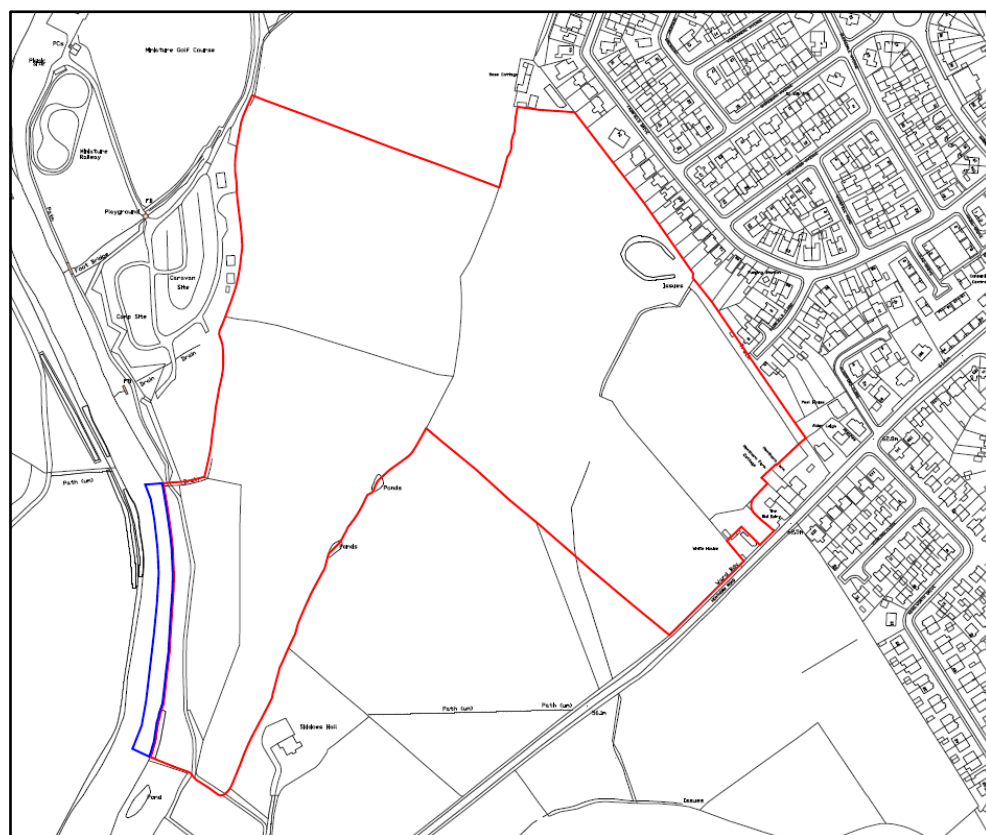


Figure 1.2: Site boundary

Content of Statement

- Section 1** provides an introduction to the statement and sets out the description of the development site.
- Section 2** outlines the relevant planning policy considerations that the development seeks to comply with.
- Section 3** provides a sustainability assessment describing how the units can achieve Code for Sustainable Homes Level 3 in line with the requirements of Condition 25.
- Section 4** provides a review of site-wide energy demand and describes the proposed approach for delivering 10% renewable energy provision in line with the requirements of Condition 3.
- Section 5** provides an overall summary of the scheme and the key issues highlighted within the previous chapters, summarising the key sustainability commitments of the site.

Code for Sustainable Homes (CSH)

- 1.6 The Code for Sustainable Homes (CSH) is a voluntary assessment tool for establishing the overall sustainability performance of new residential buildings.
- 1.7 This Sustainability Statement includes in the appendices, a pre-assessment estimator for the Code for Sustainable Homes. These pre-assessments provide an indicative rating of a buildings potential performance based on simplified assessment criteria.
- 1.8 Further details are discussed in Chapter 3, CSH Sustainability Assessment.

2.0 Planning Policy Compliance

- 2.1 National and Local planning policy has in recent years become more orientated towards sustainability and energy reduction. The National Planning Policy Framework (NPPF) (published in March 2012) is an example of this, and Local policy has emerged with requirements to meet environment criteria for residential and commercial developments.

National Planning Policy Framework

- 2.2 The NPPF replaces the previous Planning Policy Guidance notes and Planning Policy Statements and is a key part of the Coalition's reforms to promote sustainable growth.
- 2.3 Paragraph 7 of the NPPF explains the three dimensions to sustainable development - economic, social and environmental - which give rise to the need for the planning system to perform a number of roles and draws attention to the sustainable emphasis of National Policy.

*'an **economic role** – contributing to building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure;*

*a **social role** – supporting strong, vibrant and healthy communities, by providing the supply of housing required to meet the needs of present and future generations; and by creating a high quality built environment, with accessible local services that reflect the community's needs and support its health, social and cultural well-being; and*

*an **environmental role** – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy'.*

- 2.4 The Government is committed to ensuring that the planning system does everything it can to support sustainable economic growth. A positive planning system is essential because, without growth, a sustainable future cannot be achieved. The document goes on to state:

'At the heart of the planning system is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan making and decision-taking.'

The North West of England Plan Regional Spatial Strategy to 2021

- 2.5 The Localism Act received Royal ascent on the 15th November 2011. The Act states that Regional Spatial Strategies (RSS) will be abolished. To date the Regional Strategies are still formally part of the development plan, although less weight (in terms of material consideration) is given to the policies contained in them that conflict with the NPPF.
- 2.6 The RSS applied the guiding principles of the UK Sustainable Development Strategy (2005) and the elements that contribute to the creation of sustainable communities.
- 2.7 Policy DP1 'Spatial Principles' underpinned the RSS and the strategy recommended that 'all individual proposals, schemes and investment decisions should adhere to these principles'.
- 2.8 Policy EM 18 'Decentralised Energy Supply' requires that in advance of local targets being set, all residential developments comprising 10 or more units should secure at least 10% of their predicted energy requirements from decentralised and renewable or low-carbon sources, 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.

Ribble Valley District Wide Local Plan, Adopted June 1998

- 2.9 The Ribble Valley Local Plan is currently the development plan document for the borough. The Core Strategy will supersede the Local Plan when it is adopted. Until that time, the policies contained in the adopted Local Plan must be considered in terms of decision making.
- 2.10 The Local Plan does not contain specific policies reflecting the borough's approach to Sustainability, but it does contain policies that consider design, landscape value, protected species, highways, cycling and walking. All these issues are directly covered in a Code for Sustainable Homes assessment and are therefore relevant to this proposal.

2.11 The main policy that a number of decision notices reference is G1, Development Control. This policy requires a high standard of building design and is referenced when decision notices refer to renewable energy provision, for example:

'In order to encourage renewable energy and to comply with Policy G1 of the Ribble Valley Districtwide Local Plan'

2.12 Ribble Valley Borough Councils requirement relating to 10% of energy generated by new developments through renewable energy production methods simply reflect the RSS policy, because it is the more up-to-date document.

2.13 A full list of policies that have a sustainability relevance are contained in Appendix A.

Core Strategy: 2008 - 2028 - A Local Plan for Ribble Valley - Regulation 22 Submission Draft

2.14 The Ribble Valley Core Strategy is currently at a final stage in its adoption process. The Core Strategy has been submitted to the Secretary of State for an Examination in Public. As the plan is at the latter stages of its adoption cycle, considerable weight in terms of planning policy can be given to the policies contained within. As such, they are included within this Statement for consideration.

2.15 The main policy for consideration is 'Key Statement EN3: Sustainable Development and Climate Change'. This policy requires development to deliver an appropriate recognised sustainable design and construction standard where viable to do so, in order to address both the causes and consequences of climate change.

2.16 A full list of policies contained within the forthcoming Core Strategy that have a sustainability relevance are contained in Appendix A.

3.0 CSH Sustainability Assessment

- 3.1 The Code for Sustainable Homes is a voluntary assessment tool for establishing the overall sustainability performance of new residential buildings. The Code reflects the proposed stepped changes in Buildings Regulations (Part L) for residential development which will improve the energy efficiency and carbon emissions from new buildings, but also covers other topics addressed herein including ecology, flood risk, building materials and water use.
- 3.2 A Code for Sustainable Homes pre-assessment can be used to demonstrate the environmental credentials of the buildings within the proposed development. This Sustainability Statement has included a Code Pre-assessment Estimator in Appendix B for a representative selection of house types from the proposed scheme.
- 3.3 The pre-assessments provide an indicative assessment rating of the buildings potential sustainability performance and the results have fed into this statement. The dwellings are required to achieve a CSH rating of Level 3 as previously discussed due to Condition 25 of the Outline Consent Notice.
- 3.4 This section of the Sustainability Section will demonstrate how the development can achieve a CSH rating of Level 3. To do this, the following section will be broken down into key issues that the CSH assessment covers. These issues are as follows:
- Energy and CO₂ Emissions
 - Water
 - Materials
 - Surface water Run-off
 - Waste
 - Pollution
 - Heath & Well-being
 - Management
 - Ecology

Energy and CO₂ Emissions

- 3.5 One of the most critical environmental issues faced today is that of climate change which is a direct result of increasing CO₂ emissions and the enhanced greenhouse effect.
- 3.6 Improving energy efficiency is the key principle that underpins Climate Change Policy (NPPF para.93-108). High energy efficiency standards are, therefore, the first stage to secure significant energy and carbon savings over the lifetime of the building.
- 3.7 New development should be appropriately adapted and resilient to the impacts of present and future climate change, it should aim to minimise emissions of greenhouse gases, and design energy efficiency into the fabric of the building.
- 3.8 The proposed scheme will deliver dwellings that are in line with the 2010 Building Regulations Part 1LA. In addition, approximately 75% of dwellings will have a Solar Thermal water heating systems installed to deliver 10% of the site-wide energy demand through renewable energy sources.

Commitment of the development	Provide dwellings that comply with Building Regulations through improved building fabric performance. Achieve 10% of site-wide energy demand through renewable energy sources.
How this will be delivered	Solar thermal systems fitted on approximately 75% of dwellings. All internal and external lighting will be low energy and white goods A+ rated where these are provided. Drying space will be provided where feasible and viable. Energy Display devices will be provided where feasible and viable. Energy efficient internal and external Lighting will be fitted to all dwellings. Cycle Storage will be provided where feasible and viable. Space will be provided for a Home Office to promote working from home.
Evidence	Code Pre-assessment Estimator Report.

Water

- 3.9 The demand for clean, fresh potable water increases with new development and population.
- 3.10 In order to limit the potential effects of future fluctuations in rainfall and temperatures in water stressed areas, the consumption of clean water for non-potable uses should be minimised.
- 3.11 To reduce the consumption of potable water in the home, the use of water efficient fittings, appliances and water recycling systems are encouraged. To help reduce the amount of mains potable water for external use, promotion of rainwater recycling is also encouraged.

Commitment of the development	To reduce the consumption of potable water in the home from all sources. Water consumption will be equal to, or less than 105 litres per person per day.
How this will be delivered	Water efficient fittings and appliances will be provided where feasible and viable. Rainwater collection system (water butt) for irrigation use will be specified where feasible and viable.
Evidence	Code Pre-assessment Estimator Report.

Materials

- 3.12 Materials used in the construction of buildings, the public realm and infrastructure have a range of environmental impacts from sourcing, through to processing and packaging. Specification of materials with lower environmental impacts can greatly improve the sustainability of a development.
- 3.13 This section addresses the approach taken with regard to:
- Environmental Impact of materials
 - Responsible Sourcing of Materials

Environmental Impact of Materials

3.14 The BRE Green Guide is a recognised industry standard which provides a simple tool to aid specifiers in considering the environmental impact of their choices in material. The Green Guide is based on the Life Cycle Assessment (LCA) of products from 'cradle to grave' and applies a weighting system and summary score of A+ to E where A/A+ represents the lowest overall environmental impact.

Responsible Sourcing of Materials

3.15 To promote the specification of responsibly sourced materials for the basic building and finishing elements, materials must be assessed and sourced from recognised standards such as BES 6001:2008 (Framework Standard for Responsible Sourcing of Construction Products) and comply with recognised industrial standards such as Forestry Stewardship Council (FSC), EMAS (Eco-Management and Audit Scheme) and EMS (Environmental Management Systems).

Commitment of the development	To use materials with lower environmental impacts over their life-cycle.
How this will be delivered	Materials will be responsibly sourced where feasible and viable, with the aim to achieve a high level of credits in line with the calculation tool of the CSH assessment method.
Evidence	Confirmation from the developer/manufacturer that the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed. Insulation materials with a global warming potential (GWP) of <5 will be specified.

Surface Water Run-off

3.16 A rise in sea level and changing weather patterns including increased duration and intensity of rainfall is one of the principal predicted environmental effects of climate change. Promotion of development in low flood risk areas is actively encouraged.

3.17 Appropriate design of surface water drainage for housing developments which *avoid, reduce and delay* the discharge of rainfall run-off to watercourses and public sewers

using SUDS techniques are a key aspect of reducing flood risk and protecting waters from environmental damage and pollution.

- 3.18 The proposed residential aspect of the development is located within Flood Zone 1 which shows there is a low probability for flooding. This zone comprises land assessed as having a less than 1 in 1000 annual probability of river or sea flooding in any one year (<0.1%).
- 3.19 The flood risk assessment undertaken by Wardell Armstrong has estimated existing surface water runoff rate for the site is 7.33l/s/ha, which equates to approximately 58.64l/s of runoff from the 8.00ha proposed development area of the site, during an average annual rainfall event and this is discharged into the unnamed watercourse crossing the site and to the River Ribble.
- 3.20 It has been calculated that the increase in impermeable area as a result of the development will be equivalent to approximately 60% of the developable site area (i.e. 60% of 8.0ha = 4.8ha). The additional surface water runoff generated as a result of the increase in impermeable area as part of the proposed development will be attenuated on site so as not to increase the flood risk to areas downstream of the site.
- 3.21 It is estimated that the volume of surface water attenuation required will be approximately 3400m³ to accommodate the 1 in 100 year rainfall event, including an allowance for climate change, restricted to greenfield runoff rates.
- 3.22 The attenuation requirements for the site can be provided by open balancing ponds in each catchment area. These have been indicatively illustrated in Drawing Number 4370-P-01 – Development Framework Plan. The attenuation for the catchment draining to the River Ribble is to be sited in the Public Open Space area.

Commitment of the development	The discharge of surface water from the proposed development will be no greater than the run-off from the existing use.
How this will be delivered	The volume of surface water attenuation requirements for the site will be provided by open balancing ponds in each catchment area.
Evidence	Flood Risk Assessment – Wardell Armstrong DRG NO: 4370-P-010

Waste

- 3.23 In order to reduce the environmental burden of wasted resources, pollution and landfill pressures, the development will seek to minimise the quantities of waste generated in construction and operation as well as maximising the potential for segregation of waste streams and recycling.
- 3.24 Composting is one of the most effective and environmentally friendly ways to reduce waste to landfill and to recycle organic waste produced from food scraps and garden waste. The resultant product can then be used to good effect on private gardens, allotments and landscaping.
- 3.25 Ribble Valley Borough Council provides households with three x 140 litre wheeled bins. A burgundy bin is provided for the weekly collection of general/non recyclable waste, which is collected alongside the alternate weekly collection of a blue bin provided for the recovery of glass, cans and plastic bottles, with a green bin provided for garden (green) waste.
- 3.26 Through the construction phase a Site Waste Management Plan will include procedures and commitments for monitoring and reducing waste generated on site in accordance with best practice and the defined waste groups.

Commitment of the development	All construction site waste will be effectively managed and targeted. Buildings will be equipped with the provision of a waste storage system to facilitate segregation and storage of waste streams.
How this will be delivered	A Site Waste Management Plan will be implemented to monitor report and target reductions in the quantities of waste generated on site and also identify opportunities for recycling of building materials. The site will contain the mandatory refuse bins that Ribble Valley Borough Council provide, these include domestic refuse, bins for recycling plastic, tins and glass and a garden waste bin.
Evidence	(SWMP) Site Waste Management Plan. Ribble Valley Recycling & Refuse service policy.

Pollution

3.27 The key issues for CSH assessments relating to pollution in developments are:

- To reduce emissions of gases with high Global Warming Potential (GWP) that are associated with the manufacture, installation, use and disposal of foamed thermal and acoustic insulating materials.
- To promote the reduction of nitrogen oxide (NO_x) emissions into the atmosphere.

Commitment of the development	All insulating materials in the elements of the dwelling will only use substances that have a GWP <5. NO _x Emission levels will be reduced accordingly with Boiler Class specification.
How this will be delivered	Specifying insulants with a GWP <5 in manufacture and installation. Class 5 Boilers installed in all residential units.
Evidence	Code Pre-assessment Estimator Report.

Health & Well-being

3.28 Health and Well-being is about improving the quality of life within the home. This entails providing natural daylighting to reduce the energy required to light the home and to ensure there is adequate sound insulation within the home to prevent complaints of noise from neighbours. A provision of outdoor space that is partially private to promote the use of outdoor living is also encouraged.

3.29 These factors all contribute to the well-being of the occupant and maintain their enjoyment of the home they have purchased.

Commitment of the development	Minimum average daylight factors will be incorporated into the design of the house types. 80% of the working plane in the kitchen, living room, dining room or study will receive direct light from the sky. Airborne sound insulation values of at least 5dB higher and impact sound insulation values are at least 5dB lower than current Buildings Regulations, to prevent complaints from
-------------------------------	---

	neighbours. A minimum outdoor space will be provided that is at least partially private.
How this will be delivered	Window design – space, size and positioning. Appropriate sound insulation installed. Garden space provided where feasible.
Evidence	Code Pre-assessment Estimator Report.

Management

- 3.30 Site Management is the holistic approach to delivering a scheme that takes into consideration the construction of the site in terms of promoting environmentally and socially considerate construction sites, while delivering sites that's are managed in a manner that mitigates environmental impacts.
- 3.31 The second stage is to deliver a residential scheme that has been designed with security in mind, where people feel safe and secure where crime and disorder, or the fear of crime, does not undermine their quality of life or '*community cohesion*'.
- 3.32 The final stage is delivering a product that can be used; providing guidance enabling occupants to understand and operate their home efficiently and make the best use of local facilities.

Commitment of the development	A home user guide will be provided. Construction site impacts monitored and reported. To achieve 'Secure by Design' Certification.
How this will be delivered	On completion of sale a guide will be provided containing necessary details about the everyday use of the home in a form that is easy for its users to understand. Construction site impacts will be monitored, reported and targeted for CO ₂ / Energy and water use from site activities. In addition best practice in respect of air and water pollution will be followed. Crime prevention measures in the design of the scheme will

	have been influenced by the recommendations of the Architectural Liaison Officer (ALO) and implemented to achieve the required certification.
Evidence	Secure by Design Certificate.

Ecology

- 3.33 New development should ensure that the ecological value of the site is conserved and enhanced by maintaining biodiversity and protecting existing natural habitats. Biodiversity, together with ecosystems and green spaces contribute to a high quality of life and deliver recognised improved mental and physical health benefits.
- 3.34 Trees and plants have further benefits in stabilising soil, preventing erosion, reducing water run-off and forming landscape, visual, wind and noise barriers, softening the intrusion of the built environment.
- 3.35 Biodiversity and the protection of habitats and species are important to conserve the ecological interest in an area, but also to contribute to human health and well-being. To determine the ecological value of habitats in and around the site, surveys should be undertaken by suitably qualified ecologists and their recommendations incorporated.
- 3.36 An Ecological Assessment was carried out by FPCR (November 2010) and identified that the majority of habitats within the site had limited diversity and were considered to be of low conservation value, comprising common and widespread species. Due to their limited diversity and existence of similar habitats within the local area the impact of their loss is likely to be negligible.
- 3.37 The habitats on the site were considered to be sub-optimal for reptiles and no evidence of water voles was found within the site boundary.
- 3.38 The semi-improved grassland along the riverbank was identified as a habitat of value. The ecological assessment recommended that this area should continue to be managed as a habitat for nature conservation. It was identified as a valuable habitat for riparian wildlife such as otter and bats including Daubenton's bats. It would also act as a buffer between the site and the River Ribble.
- 3.39 The hedgerows and trees are considered to be of local value providing corridors of movement, nesting and foraging habitats for mammals and bird species and should be retained and enhanced where possible.

Commitment of the development	The recommendations within the Ecological Assessment will be implemented.
How this will be delivered	The site boundary hedges are to be trimmed and reduced in accordance with a Landscape Management Plan. Trees of value are to be retained across the site where identified as feasible and viable. Vegetation will be cleared outside of the Bird breeding season. Areas of valued habitat will be left for use as a river 'buffer' and 'park land' resource.
Evidence	Ecological Survey – FPCR Code Pre-assessment Estimator Report.

4.0 Energy Assessment

- 4.1 A Renewable Energy Feasibility Study has been undertaken into which renewable energy sources would be appropriate for use at Henthorn Road. The results of the study are presented in this section.
- 4.2 In line with the requirements of Condition 25, the section then describes the proposed approach for meeting 10% of the development's energy demand through renewable energy sources.

Renewable Energy Feasibility Study

- 4.3 Renewable energy technologies considered within this report include:
- Wind turbines;
 - Ground source heat pumps;
 - Air Source Heat Pumps.
 - Solar electricity – Photovoltaic's (PV); and
 - Solar thermal (hot water) panels.
- 4.4 Where a certain system has been considered inappropriate, justification for the decision is provided.

Wind Turbines

- 4.5 Wind turbines generate electricity by harnessing wind power through horizontal or vertical turbines and can potentially be mounted on buildings (note that roof mounting can be problematic in terms of noise and vibration and it may be preferable to mount on a separate mast). *Figure 4.1* shows average wind speeds (in yellow) at 10m, 25m and 45m above ground level (agl.) for the 1km grid square around the site (grid square 373 441, national grid reference SD7341). The values in the squares surrounding the central yellow square correspond to wind speeds for surrounding grid squares.

Figure 4.1 Average wind speeds at three heights agl. around the site (Source: DECC, Wind Speed Database)

Wind speed at 45m agl (in m/s)

5.5	5.5	5.4
5.3	5.4	5.4
5.0	5.2	5.3

Wind speed at 25m agl (in m/s)

4.9	5.0	4.8
4.7	4.8	4.9
4.4	4.6	5.3

Wind speed at 10m agl (in m/s)

4.1	4.2	4.1
3.9	4.1	4.1
3.6	3.8	3.9

- 4.6 Average wind speed should be at least 6m/s for this technology to be economically attractive and to ensure efficient operation of the turbines and dependable energy generation.
- 4.7 The average annual wind speeds are too low for the use of wind turbines to be feasible and therefore, wind energy is not considered further in this report.

Ground Source Heat Pumps

- 4.8 Ground source heat pumps (GSHPs) extract heat from the ground and supply space heating. GSHPs can also partially heat water, however, an immersion system (electrical) is usually necessary to raise water temperature to the required levels. Heat is moved from the source (ground) to point of distribution via either horizontal or vertical loop systems. Due to their sub-terranean installation, these systems have no visual impact issues.
- 4.9 A GSHP is considered to be a 'low carbon' energy source, as electricity (assumed at this stage to be from standard grid electricity generated largely from fossil fuel sources) is required to drive a compressor and transform the heat up to the desired temperature. This heat is then distributed to the emitter (such as underfloor heating).

GSHPs are therefore most cost effective when replacing electric heating or where the property is off the mains gas grid. The measure of useful heat energy output to electrical energy input is known as the coefficient of performance (CoP), which, for GSHPs, is typically in the region of 3.5 (i.e. for every 3.5 units of heat provided, one unit of electricity is required).

- 4.10 Despite the likely provision of private gardens for each dwelling, there would be limited space on the development to accommodate the necessary quantity of horizontal ground collector loops.
- 4.11 Slinky loops are an alternative approach to the installation of GSHPs using horizontal heating loops which require less ground works but has the potential in some situations to 'starve' the ground of heat, thereby reducing the CoP (and therefore mitigation of energy demand and associated CO₂ emissions) over time, as more electrical power is consumed by the pump to meet the heat demand.
- 4.12 Vertical collector loops benefit from high thermal efficiency but require boreholes up to 150m deep (or numerous boreholes of reduced depth), the borehole being no less than 6m apart to minimise thermal interference. Uncertainty about geology at this depth means that drilling could be time-consuming and technically difficult. As a consequence, this approach is an expensive option and carries additional risk. Dependent upon the geology in the area, drilling costs would be between £25 and £95 per meter depth.
- 4.13 Given the limited space on the development for horizontal loops and the high costs and uncertainty known to be associated with vertical systems, neither are considered technically feasible on this site and will therefore not be given further consideration.

Air Source Heat Pumps

- 4.14 Air source heat pumps (ASHPs) are based upon the same principles of operation as GSHPs, but extract ambient heat from the air, rather than the ground. Within the air-coupled heat pump, heat is moved from the outside air or exhaust air from the property to point of distribution to provide space heating. As for GSHPs, ASHPs can also meet domestic hot water demand.
- 4.15 Like GSHPs, ASHPs are not a 100% renewable energy source as electricity is required to run the heat exchanger, and they are therefore most cost effective when replacing electric heating or where the property is off the gas grid. ASHPs have lower

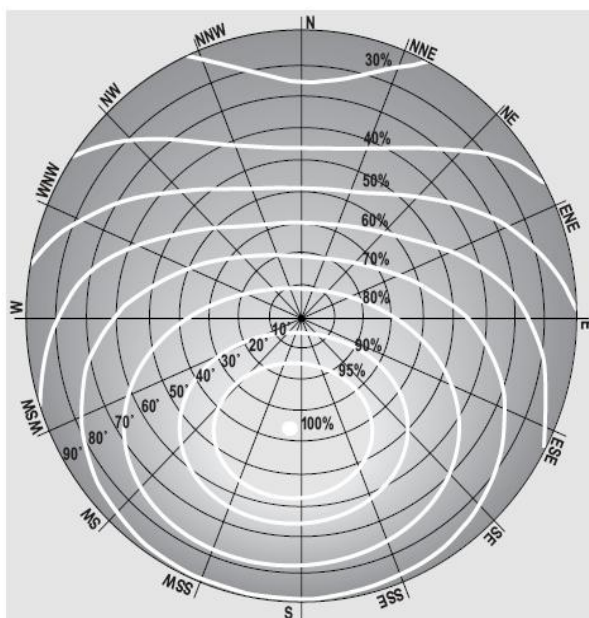
CoPs than GSHPs because of lower source temperature and the lower energy density of air compared with water. The CoP reduces with outside air temperature such that if the external air temperature is 0°C, the CoP is in the region of 1. That is, for every one unit of heat provided, one unit of electricity is required; essentially, units installed with ASHPs would have electrical heating during full winter loads, which would significantly reduce the renewable energy contribution from these systems and would potentially require additional heating provision, likely to be from electrical resistance systems which are expensive to operate and would negate the intended benefit of renewable energy provision on site. For this reason ASHPs would not generally be specified in Britain for developments whose heating demand would otherwise be supplied by gas.

- 4.16 An alternative application for this technology is in the form of Exhaust Air Source Heat Pumps (Exhaust ASHP), which can be installed in residential properties to provide space and water heating. These units recover embodied heat from the air within the dwelling (generated from lights, people and appliances, etc.) using mechanical ventilation, which extracts warm stale air from various parts of the building and passes it over the heat exchanger unit within the heat pump. This provides heat at a sufficient temperature for space heating and can heat water. An internal, electrical immersion heater may be required to boost water temperature to an acceptable level. These units do not suffer from the problems associated with seasonal losses of efficiency and operate with a CoP of around 3 allowing for the water heating immersion pump. That is, for every three units of heat produced one unit of electrical energy is required to drive the pump. These systems are also able to control the ventilation rate for the dwelling.
- 4.17 Exhaust ASHPs could be installed in every dwelling at the site to provide space and water heating, although there would be a negative impact on the floor area remaining within each unit as the exhaust ASHPs are approximately the size of a large fridge freezer with a footprint of 600mm x 600mm, allowance for equipment.
- 4.18 It should also be noted that these systems operate most efficiently and provide the most environmental benefit when coupled to emitters such as under floor heating or oversized radiators.
- 4.19 Due to the requirement for underfloor heating associated with ASHPs and the space required for Exhaust ASHPs which represent a departure from the proposed specification and layout of the dwellings, these technologies will not be considered further

Solar Electricity – Photovoltaic's (PV)

- 4.20 Photovoltaic systems use solar cells to convert daylight into electrical energy through semi-conductor cells. Greater light intensity falling upon the PV array increases the flow of electricity; consequently this technology is particularly reliant upon careful positioning. PV modules can be either roof mounted or free standing and can be installed on horizontal, sloping or vertical surfaces.
- 4.21 Optimum performance is achieved at roof pitch angles of 30° to 50° (horizontal mounting is preferable to vertical), facing due south and not overshadowed (See Figure 4.2).

Figure 4.2 Optimum Orientation of PV Arrays



Source: Building Integrated PV, Design Brief

- 4.22 Due to the current site layout there is the potential for a number of properties to be orientated in the optimum position to gain the best benefit from Solar PV, therefore this technology will be considered further.

Solar Thermal – Water Heaters

- 4.23 Solar collectors absorb the sun's energy and typically provide heat for domestic hot water (although they can also contribute to space heating in some cases, especially when coupled to under floor heating systems). The system transfers heat from the

collectors to storage tanks. Such technology is suited to the UK climate and will work effectively on overcast days with diffuse sunlight. As with PV, their efficiency depends upon positioning; ensuring the panels are orientated due south and mounted between 30° and 50° will deliver good performance.

- 4.24 As with PV, the current layout of the site does present an opportunity to install solar thermal water heaters on a number of house types, therefore this technology will be considered further.

Proposed Approach at Henthorn Road, Clitheroe

- 4.25 Approved SAP 2009 software (NHER Plan Assessor v5.4) has been used to generate representative energy demand models for the proposed development. This software calculates the regulated energy demand of the dwellings and associated Carbon Dioxide emissions, in accordance with the requirements of Building Regulations, Part L (2010).
- 4.26 Representative SAP calculations have been used to calculate the likely site-wide energy demand of the proposed development and a summary of the results are shown in *Tables 4.1* and *4.2*.
- 4.27 The preferred option for delivering the required site-wide 10% energy reduction is through a Solar Thermal solution. At present there are two approaches, with a decision to be made on whether to use either Kingspan 1808 panels or Kingspan 2108 panels.
- 4.28 A Solar Thermal solution has been chosen because the roof orientation of a number of properties are in an optimum position to deliver the 10% reduction, and the schedule of house types planned on site are for the larger family variety, presenting an appropriate option for installing a water cylinder (which is required for a Solar Thermal Water Heater) instead of a combination boiler.
- 4.29 The predicted site-wide energy demand and the level of Solar Thermal provision using Kingspan 1808 panels is shown in *Table 4.1*.

Table 4.1 – Solar Thermal Provision (Kingspan 1808)			
Plots	10% of Estimated Regulated Energy Demand (kWh/yr)	No. of Plots with Solar Thermal Units	Predicted Solar Thermal Provision
Taylor Wimpey	88849.1	97 of 135	88803
Barratt	94940.2	104 of 135	95273

4.30 The predicted site-wide energy demand and the level of Solar Thermal provision using Kingspan 2108 panels is shown in *Table 4.2*.

Table 4.1 – Solar Thermal Provision (Kingspan 2108)			
Plots	10% of Estimated Regulated Energy Demand (kWh/yr)	No. of Plots with Solar Thermal Units	Predicted Solar Thermal Provision
Taylor Wimpey	88849.1	76 of 135	89080
Barratt	94940.2	82 of 135	95500

4.31 Although the choice of Solar Thermal panel is yet to be made, *Tables 4.1* and *4.2* show that 10% of the site-wide energy demand will be met through renewable energy provision, in line with the requirements of Condition 25.

5.0 Conclusion

- 5.1 This Sustainability and Energy Statement has been prepared by NJL Consulting LLP (NJL) on behalf of Taylor Wimpey Manchester (Taylor Wimpey) and Barratt Homes North West (Barratt Homes), in support of a Reserved Matters planning application for 270 dwellings at Land off Henthorn Road, Clitheroe, Lancashire.
- 5.2 Condition (25) of the Outline planning permission (Appeal Decision APP/T2350/A/11/2161186) requires that the dwellings must achieve Code Level 3 of the Code for Sustainable Homes (CSH). This statement and the CSH Pre-assessment Estimator reports have demonstrated that the dwellings are capable of achieving Code Level 3.
- 5.3 Condition (3) of the Outline Consent requires 10% of the site's energy demand to be met through renewable energy sources. This statement has described the proposed approach to reducing site-wide energy demand by 10%, through the installation of Solar Thermal water heating systems.
- 5.4 In addition to complying with the Conditions stated above, this statement has identified the following key Sustainability Commitments that comply with the aspirations of both National and Local Sustainability Policy:
- To limit CO₂ emissions rising from the operation of a dwelling.
 - To improve fabric energy efficiency performance, future proofing the dwelling.
 - To reduce the consumption of potable water in the home from all sources.
 - To use materials with lower environmental impacts over their life-cycle.
 - The discharge of surface water from the proposed development will be no greater than the run-off from the existing use.
 - All construction site waste will be effectively managed and targeted.
 - Buildings will be equipped with the provision of a waste storage system to facilitate segregation and storage of waste streams.
 - All insulating materials in the elements of the dwelling will only use substances that have a GWP <5.
 - NO_x Emission levels will be reduced accordingly with Boiler Class specification.

- Minimum average daylight factors will be incorporated into the design of the house types.
- 80% of the working plane in the kitchen, living room, dining room or study will receive direct light from the sky.
- Airborne sound insulation values of at least 5dB higher and impact sound insulation values are at least 5dB lower, to prevent complaints from neighbours.
- A minimum outdoor space will be provided that is at least partially private.
- A home user guide will be provided.
- Construction site impacts monitored and reported.
- To provide a 'Secure by Design' Certificate.
- The recommendations within the Ecological Assessment will be implemented.

Appendix A – Local Policies

Ribble Valley District Wide Local Plan, Adopted June 1998

POLICY	AIM	COMPLIANCE
G1 Development Control	All development proposals are expected to provide a high standard of building design and landscape quality without affecting the amenities of the surrounding area.	The development proposal is for a high quality design, as described in this report and the supporting Design and Access Statement.
G5 Outside Settlement Boundaries	To direct developments mainly towards land within the main settlement boundaries.	The proposed scheme contributes to a local housing need (affordable housing).
G11 Crime Prevention	To deliver safe and well designed developments.	Secure by Design principles will be considered throughout the design stage.
ENV1/ENV2/ENV3 AONB	To deliver protection, enhancement and to conserve areas within and adjacent to the AONB.	The development proposal is for a high quality design, as described in this report and the supporting Design and Access Statement, taking into account the surrounding landscape.
ENV6 Agricultural Land	To protect the best and most versatile agricultural land.	The proposed site is classified as grade 4 with a small area of 3b.
ENV7 Protected Species	To ensure that development proposals would not have an adverse impact on badgers or species protected by the Wildlife and Countryside Act.	The ecology survey submitted with the application shows how the proposal will not have a detrimental impact on flora or fauna of value or protected on or near the development site. The landscaping scheme uses native species where possible and will therefore increase the biodiversity value of the site.

POLICY	AIM	COMPLIANCE
T1 Highway Improvement and Traffic Management	To ensure that any proposed new roads are consistent with the overall transport strategy.	The Transport Assessment has shown that the proposal will not negatively impact on the highway infrastructure.
T7 Parking	To ensure new developments provide adequate car parking and servicing space.	Parking provision on the proposed layout provides sufficient parking across the site.
T12 Cycling	To ensure that development proposals consider provision for cyclists.	The proposal includes a network of footpath and cycle routes which link in to existing cycle networks in the area.
T15 Walking	To ensure that the needs of pedestrians are taken into account within development proposals, with travel by foot and via public transport being encouraged.	The proposed scheme includes a network of footpaths, while a number of services are available within walking distance of the site.
ENV7 Protected Species	To ensure that development proposals would not have an adverse impact on badgers or species protected by the Wildlife and Countryside Act.	The ecology survey submitted with the application shows how the proposal will not have a detrimental impact on flora or fauna of value or protected on or near the development site. The landscaping scheme uses native species where possible and will therefore increase the biodiversity value of the site.
ENV14 Archaeological & Historic Heritage	To ensure protection of Archaeological remains.	The Archaeological survey submitted with the application shows no adverse impacts on Heritage or Archaeological remains.

Ribble Valley Core Strategy Reg. 22 Composite Submitted Version (Submission for EiP Version)

POLICY	AIM	COMPLIANCE
Key Statement DS2: Presumption in Favour of Sustainable Development	To deliver a positive approach that reflects the presumption in favour of sustainable development contained in the National Planning Policy Framework.	The supporting information has demonstrated that the proposed site is sustainably located. In addition Ribble Valley has a shortfall in their housing supply and the site will help contribute to this.
Key Statement EN2: Landscape	To deliver development that is in keeping with the character of the landscape, reflecting local distinctiveness, vernacular style, scale, style, features and building materials.	The development proposal is for a high quality design, as described in this report and the supporting Design and Access Statement, taking into account the surrounding landscape.
Key Statement EN3: Sustainable Development and Climate Change	To deliver development that meets an appropriate recognised sustainable design and construction standard where viable to do so, in order to address both the causes and consequences of climate change.	The supporting technical documents have demonstrated the site has considered issues related to climate change.
Key Statement EN4: Biodiversity and Geodiversity	To deliver and conserve wherever possible the area's biodiversity and geodiversity and to avoid the fragmentation and isolation of natural habitats and help develop green corridors.	The ecology survey submitted with the application shows how the proposal will not have a detrimental impact on flora or fauna of value or protected on or near the development site. The landscaping scheme uses native species where possible and will therefore increase the biodiversity value of the site.
Key Statement EN5: Heritage Assets	To conserve and enhance the Heritage Assets and their settings	The Archaeological survey submitted with the application shows no adverse impacts on Heritage or Archaeological remains.

POLICY	AIM	COMPLIANCE
Key Statement H1: Housing Provision	To deliver 4,000 dwellings, estimated at an average annual completion rate of at least 200 dwellings per year over the period 2008 to 2028	This proposal contributes up to 120 deliverable homes towards the required supply of housing.
Key Statement H2: Housing Balance	Planning permission will only be granted for residential development providing it can be demonstrated that it delivers a suitable mix of housing that accords with the projected future household requirements and local need	An appropriate mix of house types will be included within the proposed development to ensure that a mixed community is created.
Key Statement H3: Affordable Housing	To deliver the appropriate supply of affordable housing.	The proposed scheme will deliver 30% affordable housing, in line with LPA requirements.
Key Statement DMI1: Planning Obligations	To deliver development that contributes to the needs of local communities and sustainable development	The proposed scheme will contribute to the addition of local facilities in the form of an affordable housing contribution, New Homes Bonus and a S106 agreement.
Key Statement DMI2: Transport Considerations	To reduce the need to travel by car and improve cycle and pedestrian links.	The proposal includes a network of footpath and cycle routes which link in to existing cycle and footpath networks in the area. Key facilities are within walking distance and there is a good public transport provision within the vicinity of the site.

POLICY	AIM	COMPLIANCE
Policy DMG1: General Considerations	To encourage developments of high quality design which meet the needs of occupiers, include suitable parking and access arrangements, propose suitable landscaping and fencing, cause no unacceptable impact on neighbouring properties, and minimise opportunities for crime and anti-social behaviour.	The development proposal is for a high quality design, as described in this report and the supporting Design and Access Statement
Policy DMG2: Strategic Considerations:	Development should be in accordance with the core strategy development strategy. Outside the settlement areas development must meet one of the listed criteria.	The proposed development is for local needs housing which meets an identified need – providing a affordable housing contribution and help contribute to the housing requirement.
Policy DMG3: Transport and Mobility	To deliver public transport and associated infrastructure to serve those moving to and from the development.	The Transport Assessment has shown that the proposal will not negatively impact on the highway infrastructure. The proposal will be accompanied by a travel plan demonstrating how the development will contribute to sustainable transport objectives and how residents will be encouraged to use non-car modes of transport.
Policy DME1: Protecting trees and woodlands	To protect the Boroughs Trees and Woodland Provision.	The Arboricultural survey demonstrates that no quality trees will be removed as part of the development. The landscaping scheme includes planting new trees.
Policy DME2: Landscape and Townscape Protection	To protect the boroughs Landscapes and Townscapes.	The proposal will contribute to the townscape by good design and careful consideration of neighbouring uses, as demonstrated in the supporting Design and Access Statement.

POLICY	AIM	COMPLIANCE
Policy DME3: Site and Species Protection and Conservation	To ensure that development proposals would not have an adverse impact on badgers or species protected by the Wildlife and Countryside Act.	The ecology survey submitted with the application shows how the proposal will not have a detrimental impact on flora or fauna of value or protected on or near the development site. The landscaping scheme uses native species where possible and will therefore increase the biodiversity value of the site.
Policy DME6: Water Management	To deliver appropriate measures for the conservation, protection and management of water. To ensure there are no risk of flooding due to new development.	The drainage strategy submitted in support of the application demonstrates the proposal has adequate water supply resources and foul sewer capacity to serve the development. The site is located in Flood Zone 1 and is therefore not liable to flooding. The proposed drainage strategy will ensure that suitable surface water attenuation measures are incorporated.
Policy DMH1: Affordable Housing Criteria	To deliver the provision of affordable housing units.	The proposed scheme to contribute 30% affordable housing provision.

Appendix B – Code Pre-assessment Report



Results

Development Name:	Henthorn Road, Clitheroe
Dwelling Description:	D1400 - 4 Bed Detached
Name of Company:	NJL Consulting LLP
Code Assessor's Name:	Juan Murray
Company Address:	Adamson House Towers Business Park Wilmslow Road Manchester
Notes/Comments:	

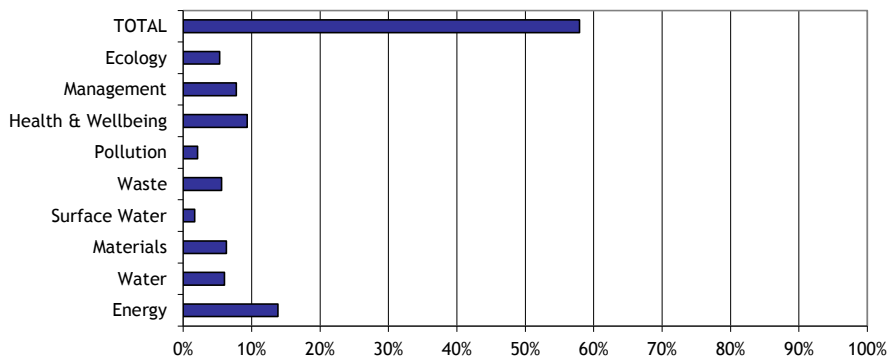
PREDICTED RATING - CODE LEVEL: 3

Mandatory Requirements: All Levels

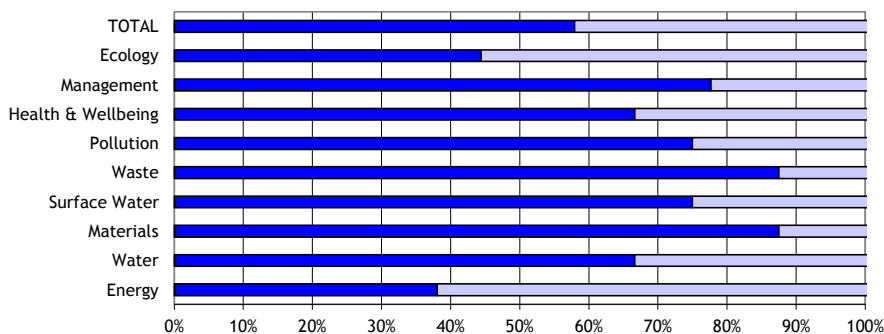
% Points: 57.93% - Code Level: 3

Breakdown: Energy - Code Level: 3
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.

CATEGORY 1 ENERGY		Overall Level: 3	Overall Score	57.93	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 38.06			Credits	Level		
Contribution to Overall % Score: 13.85 points			11.8 of 31 Credits	Level 3		
Ene 1 Dwelling Emission Rate	Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score _____ What is the predicted number of credits? 0.2 OR Are zero net CO₂ emissions achieved? ☐	0.2 of 10 Credits	Level 3	SAP calculations of unit type D1400 indicative only.		
Ene 2 Fabric Energy Efficiency	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. Enter the predicted score _____ Apartments, Mid-terrace ☐ OR End terrace, Semi and Detached ☒ OR Staggered Mid terrace ☐ What is the predicted number of credits? 3.6	3.6 of 9 Credits	-	Representative Housetypes provided		
Ene 3 Energy Display Devices	Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption. Select whether the EDD monitors electricity and/or fuel _____ None Specified ☐ Primary Heating only ☐ OR Electricity only ☐ OR Electricity and primary heating fuel ☒	2 of 2 Credits	-	Energy display device provided, displaying both current electricity and primary heating fuel consumption data.	Letter from Developer.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Ene 4 Drying Space	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. Will drying space meeting the criteria be provided? _____ Yes ☒ OR No ☐	1 of 1 Credits	-	External rotary dryer provided.	Letter from Developer.
Ene 5 Energy Labelled White Goods	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. Select the appropriate option below _____ EU Energy labelling information <u>only</u> ☒ A+ rated appliances ☐ A rated washing machine and dishwasher ☐ B rated tumble dryer or washer dryer ☐ EU Energy labelling information provided ☐	1 of 2 Credits	-	Assumed EU Energy labelling information only supplied.	Letter from Developer.
Ene 6 External Lighting	Credits are awarded based on the provision of space lighting* with dedicated energy efficient fittings and security lighting fittings with appropriate control gear.. Space Lighting _____ None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting ☒ Security Lighting _____ None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting and controls ☒ Dual lamp luminaires _____ Compliant with both above criteria ☐ * Statutory safety lighting is not covered by this requirement	2 of 2 Credits	-	Assumed internal Code compliant lighting. External lighting compliant.	Letter from Developer.

* Statutory safety lighting is not covered by this requirement

Issue		Credits	Level	Assumptions Made	Evidence Required		
Ene 7 Low or Zero Carbon Technologies	Credits are awarded where there is a 10% or 15% reduction in CO₂ emissions resulting from the use of low or zero carbon technologies. Select % contribution made by low or zero carbon technologies _____ Less than 10% of demand ☒ OR 10% of demand or greater ☐ OR 15% of demand or greater ☐	0 of 2 Credits	-	Credit not sought as not all dwellings will be fitted with Solar Thermal units.			
Ene 8 Cycle Storage	Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements. Fill in the development details below _____ Number of bedrooms: <table border="1"><tr><td>4</td></tr></table> Number of cycles stored per dwelling* <table border="1"><tr><td>2.0</td></tr></table> * if you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling	4	2.0	1 of 2 Credits	-	The provision of storage facilities is assumed and confirmation is required.	Letter from Developer.
4							
2.0							
Ene 9 Home Office	A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements. Will there be provision for a Home Office? _____ Yes ☒ OR No ☐	1 of 1 Credits	-	In order to facilitate work from home, there will be provision of appropriate space and services that enable a room to be used effectively as a home office. A home office requires adequate ventilation, a window enabling a daylight factor of at least 1.5%. Home office to include 2no. power sockets, 2no. telephone points OR one broadband connection.	Letter from Developer.		

CATEGORY 2 WATER		Overall Level: 3	Overall Score	57.93	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 66.66			Credits	Level		
Contribution to Overall Score: 6.00 points			4 of 6 Credits	Level 4		
Wat 1 Indoor Water Use	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.				Code level 3 mandatory indoor water consumption must be less than 105l/person/day.	Letter from Developer.
	Select the predicted water use / Mandatory Requirement _____ greater than 120 litres/ person/ day ☐ OR ≤ less than 120 litres/ person/ day ☐ OR ≤ less than 110 litres/ person/ day ☐ OR ≤ less than 105 litres/ person/ day ☒ OR ≤ less than 90 litres/ person/ day ☐ OR ≤ less than 80 litres/ person/ day ☐	3 of 5 Credits	Level 3 AND Level 4			
Wat 2 External Water Use	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.				Outdoor space provided. On this basis, a system to collect rainwater (water butt) for irrigation use will be specified.	Letter from Developer.
	Select the scenario that applies _____ No internal or communal outdoor space ☐ OR Outdoor space with collection system ☒ OR Outdoor space without collection system ☐	1 of 1 Credits	-			

CATEGORY 3 MATERIALS		Overall Level: 3	Overall Score	57.93	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.50		Credits		Level		
Contribution to Overall Score: 6.30 points		21 of 24 Credits		All Levels	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
Mat 1 Environmental Impact of Materials	Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D. 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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Enter the predicted score _____ What is the predicted number of credits? 12	12 of 15 Credits	All Levels			
Mat 2 Responsible Sourcing of Materials - Basic Building Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 6	6 of 6 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 6 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.
Mat 3 Responsible Sourcing of Materials - Finishing Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 3	3 of 3 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 3 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.

CATEGORY 4 SURFACE WATER RUN-OFF		Overall Level: 3	Overall Score	57.93
% of Section Credits Predicted: 75.00%		Credits	Level	
Contribution to Overall Score: 1.65 points		3 of 4 Credits	All Levels	
Sur 1 Management of Surface Water Run- off from developments	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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Select the appropriate option _____ No SUDS ☐ No runoff into watercourses for the first 5 mm of rainfall ☐ Runoff from hard surfaces will receive an appropriate level of treatment ☒	1 of 2 Credits	All Levels	
Sur 2 Flood Risk	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. Select the annual probability of flooding (from PPS25*) _____ Zone 1 - Low ☒ OR Zone 2 - Medium ☐ OR Zone 3 - High ☐ Select the appropriate option(s) _____ Low risk of flooding from FRA** ☒ All measures of protection are demonstrated in FRA ☐ Ground floor level and access routes are 600 mm above design flood level ☐	2 of 2 Credits	-	
* Planning Policy Statement 25 - Planning and Flood Risk ** FRA - Flood Risk Assessment				

Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
SUDS or other infiltration methods have been assumed to comply with recommendations outlined within the FRA.	Flood Risk and Drainage Assessment - Wardell Armstrong.
Identified as Zone 1 through the EA Flood Map.	Flood Risk and Drainage Assessment - Wardell Armstrong.

CATEGORY 5 WASTE		Overall Level: 3	Overall Score	57.93	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.00%			Credits	Level		
Contribution to Overall Score: 5.60 points			7 of 8 Credits	All Levels		
Was 1 Storage of non-recyclable waste and recyclable household waste	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. <u>Tradable Credits</u> are awarded for adequate internal and/ or external recycling facilities.				Ribble Valley Borough Council operates a pre-collection sorting recycling scheme covering metal, plastics and paper. Each dwelling to be provided with a triple internal recycling bin (min capacity of 30 litres) plus standard waste bin. External storage space must meet BS5906 or be of sufficient size to hold all bins provided by the local authority.	Detailed documentary evidence stating: - The location of internal and external storage; - The number, types and sizes of internal storage. A letter, leaflet, website or other published information from the Local Authority/waste scheme provider describing: - The types of waste collected; - The frequency of collection; - If there will be pre or post collection sorting.
	Mandatory Requirement					
	Will the minimum space be provided and be accessible to disabled people? ☒					
	Internal Recyclable household waste storage					
	Where there is no external recyclable waste storage and no Local Authority collection scheme					
	Internal storage (capacity 60 litres) ☐		0 of 2 Credits			
	Local Authority collection Scheme					
	Post Collection sorting					
	Internal storage (capacity 30 litres) ☐		4 of 4 Credits	All Levels		
	Pre-collection sorting					
	Internal storage (3 separate bins, capacity 30 litres) ☒					
	External Storage, no Local Authority collection scheme					
	3 separate internal storage bins (capacity 30 litres) ☐					
	AND					
	Houses					
	External Storage(capacity 180 litres) ☐		0 of 4 Credits			
	Flats ☐					
	Private recycling operator ☐					
	3 or greater types of waste collected ☐					

Issue		Credits	Level	Assumptions Made	Evidence Required
Was 2 Construction Site Waste Management	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. SWMP details _____ Does the SWMP include: + No SWMP ☐ + SWMP with targets and procedures to minimise waste? ☐ + SWMP with procedures to divert 50% of waste ☒ + SWMP with procedures to divert 85% of waste ☐	2 of 3 Credits		SWMP is mandatory requirement for developments >£300k. It is assumed the Site Waste Management Plan will include procedures and commitments for monitoring and reducing waste generated on site in accordance with best practice and the defined waste groups.	A copy of the compliant SWMP containing the appropriate benchmarks, commitments and procedures for waste minimisation and diversion from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c OR Confirmation from the developer that the SWMP includes/will include benchmarks, procedures and commitments for minimising and diverting waste from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c
Was 3 Composting	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. Select the facilities available _____ No composting facilities ☐ Individual composting facilities ☒ OR Communal/ community composting*? ☐ Local Authority ☒ OR Private with management plan ☐	1 of 1 Credit	-	Composting bin provided to each dwelling.	Letter from Developer.
* including if an automated waste collection system is in place					

CATEGORY 6 POLLUTION		Overall Level: 3	Overall Score	57.93	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 75.00%			Credits	Level		
Contribution to Overall Score: 2.10 points			3 of 4 Credits	All Levels		
Pol 1 Global Warming Potential (GWP) of Insulants	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. Select the most appropriate option _____ All insulants have a GWP less than 5 ☒ OR Some insulants have a GWP of less than 5 ☐ OR No insulants have a GWP of less than 5 ☐		1 of 1 Credits	-	Assumed that all insulants will have GWP <5.	Completed Checklist Pol 1 showing the proposed insulation materials (or none) for each element and whether they are foamed using blowing agents or unfoamed (from table Cat 6.1).
Pol 2 NOx Emissions	Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling. Select the most appropriate option _____ Greater than 100 mg/kWh ☐ OR Less than 100 mg/kWh ☐ OR Less than 70 mg/kWh ☐ OR Less than 40 mg/kWh ☐ OR Class 4 boiler ☐ OR Class 5 boiler ☒ OR All space and hot water energy requirements are met by systems who do not produce NOx emissions ☐		2 of 3 Credits	-	Assumed 'Ideal Logic' boilers with Class 5 NOx emissions to be specified in each dwelling.	Letter from Developer.

CATEGORY 7 HEALTH & WELLBEING		Overall Level: 3	Overall Score	57.93	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 66.00%		Credits	Level			
Contribution to Overall Score: 9.33 points		8 of 12 Credits	No level			
Hea 1 Daylighting	Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.			Provisional Calculations demonstrate compliance with this issue.	Letter from Architect.	
	Select the compliant areas Room Kitchen: Avg DF of at least 2%☒ Living Room*: Avg DF of at least 1.5%☒ Dining Room*: Avg DF of at least 1.5%☒ Study*: Avg DF of at least 1.5%☒ 80% of working plane in all above rooms receive direct light from the sky?☒ Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%. 3 of 3 Credits -					
Hea 2 Sound Insulation	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.			Detached dwellings - default credit award.		
	Select a type of property Detached Property☒ Attached Properties: - Separating walls and floors only exist between non habitable spaces☐ - Separating walls and floors exist between habitable spaces☐ Select a performance standard Performance standard not sought☒ Airborne: 3db higher; Impact: 3dB lower☐ OR Airborne: 5db higher; Impact: 5dB lower☐ OR Airborne: 8db higher; Impact: 8dB lower☐ 4 of 4 Credits -					

Issue		Credits	Level	Assumptions Made	Evidence Required
Hea 3 Private Space	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. Will a private/ semi-private space be provided? _____ Yes, private/semi-private space will be provided ☒ OR No private/semi-private space ☐	1 of 1 Credits	-	Based on assumption from drawings.	Letter from Developer.
Hea 4 Lifetime Homes	<u>Mandatory Requirement:</u> Lifetime Homes is mandatory when a dwelling is to achieve Code Level 6. <u>Tradable credits:</u> Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme. Mandatory Requirement _____ Dwelling to achieve Code Level 6? ☐ Lifetime Homes Compliance _____ All Lifetime Homes criteria will be met ☐ OR Exemption from LTH criteria 2/3 applied ☐ Credit not sought ☒	0 of 4 Credits	No level	Credit not sought	

CATEGORY 8 MANAGEMENT		Overall Level: 3	Overall Score	57.93	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 77.00%		Credits	Level			
Contribution to Overall Score: 7.77 points		7 of 9 Credits	All Levels			
Man 1 Home User Guide	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. Tick the topics covered by the Home User Guide _____ Operational Issues? ☒ Site and Surroundings? ☒ Is available in alternative formats? ☒	3 of 3 Credits	-	Home User Guide will be provided.	Letter from Developer.	
Man 2 Considerate Constructors Scheme	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. Select the appropriate scheme and score _____ No scheme used ☒ <u>Considerate Constructors</u> OR Best Practice: Score between 24 and 31.5 ☐ OR Best Practice+: Score between 32 and 40 ☐ <u>Alternative Scheme*</u> OR Mandatory + 50% optional requirements ☐ OR Mandatory + 80% optional requirements ☐ * In the first instance, contact a Code Service Provider if you are considering to use an alternative scheme.	0 of 2 Credits	-			
Man 3 Construction Site Impacts	Credits are awarded where there is a commitment and strategy to operate site management procedures on site as following: Tick the impacts that will be addressed _____ <u>Monitor, report and set targets, where applicable, for:</u> - CO ₂ / energy use from site activities ☒ - CO ₂ / energy use from site related transport ☐ - water consumption from site activities ☒ <u>Adopt best practice policies in respect of:</u> - air (dust) pollution from site activities ☒ - water (ground and surface) pollution on site ☒ <u>80% of site timber</u> is reclaimed, re-used or responsibly sourced ☒	2 of 2 Credits	-	Monitor, report & target CO ₂ / Energy & water use from site activities PLUS best practice in respect of air & water pollution.	Completed copy of Checklist Man 3 (signed and dated) detailing the procedures that will be employed to minimise construction site impacts.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Man 4 Security	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.			An ALO/CPDA has been consulted to ensure that requirements of Section 2 - Physical Security from 'Secured by Design - New Homes' are met.	Crime Impact Report Letter from Developer showing that recommendations have been implemented on site,
	Secured by Design Compliance Credit not sought OR Secured by Design Section 2 Compliance ☐ ☒	2 of 2 Credits	-		

CATEGORY 9 ECOLOGY		Overall Level: 3	Overall Score	57.93	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 44.00%		Credits	Level			
Contribution to Overall Score: 5.33 points		4 of 9 Credits	All Levels			
Eco 1 Ecological Value of Site	One credit is awarded for developing land of inherently low value. Select the appropriate option _____ Credit not sought ☐ OR Land has ecological value ☒ OR Land has low/ insignificant ecological value* ☐ * 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.	0 of 1 Credits	-	Site assumed to be of ecological value due to presence of mature hedgerows and a water course.	Ecological Appraisal - FPCR - November 2010	
Eco 2 Ecological Enhancement	A credit is awarded where there is a commitment to enhance the ecological value of the development site. Tick the appropriate boxes _____ Will a <i>Suitably Qualified Ecologist</i> be appointed to recommend appropriate ecological features? ☒ AND Will all key recommendations be adopted? ☒ AND 30% of other recommendations be adopted? ☒	1 of 1 Credits	-	Trees and Hedgerows will be maintained where feasible and viable, in line with recommendations from the ecological report. Vegetation will be cleared outside of the Bird breeding season, in line with recommendations from the ecological report.	Ecological Appraisal - FPCR - November 2010	
Eco 3 Protection of Ecological Features	A credit is awarded where there is a commitment to maintain and adequately protect features of ecological value. Type and protection of existing features _____ Site with features of ecological value? ☐ OR Site of low ecological value (as Eco 1)? ☒ AND All* existing features potentially affected by site works are maintained and adequately protected? ☐ *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.	1 of 1 Credits	-	See above		

Issue	Credits		Level	Assumptions Made	Evidence Required
Eco 4 Change of Ecological Value of Site	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 _____ Major negative change: fewer than -9 ☐ Minor negative change: between -9 and -3 ☐ OR Neutral: between -3 and +3 ☒ Minor enhancement: between +3 and +9 ☐ Major enhancement: greater than 9 ☐	2 of 4 Credits	-	Ecologocal Value assumed based on Ecological Appraisal - FPCR.	Code for Sustainable Homes Ecology Report Template completed by Ecologist and written confirmation from the developer that recommendations have been implemented.
Eco 5 Building Footprint	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 _____ Credit Not Sought ☒ OR Houses: 2.5:1 OR Flats: 3:1 ☐ OR Houses: 3:1 OR Flats: 4:1 ☐ OR Houses & Flats Weighted (2.5:1 & 3:1) ☐ OR Houses & Flats Weighted (3:1 & 4:1) ☐	0 of 2 Credits			



Results

Development Name:	Henthorn Road, Clitheroe
Dwelling Description:	PA21 - 2 Bed Mews House - Affordable
Name of Company:	NJL Consulting LLP
Code Assessor's Name:	Juan Murray
Company Address:	Adamson House Towers Business Park Wilmslow Road Manchester
Notes/Comments:	

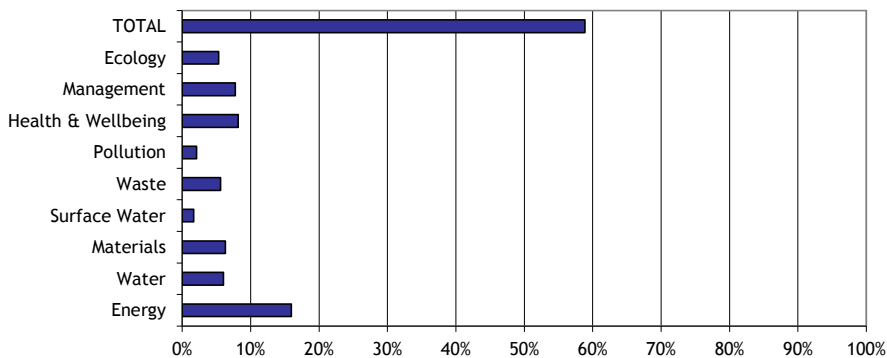
PREDICTED RATING - CODE LEVEL: 3

Mandatory Requirements: All Levels

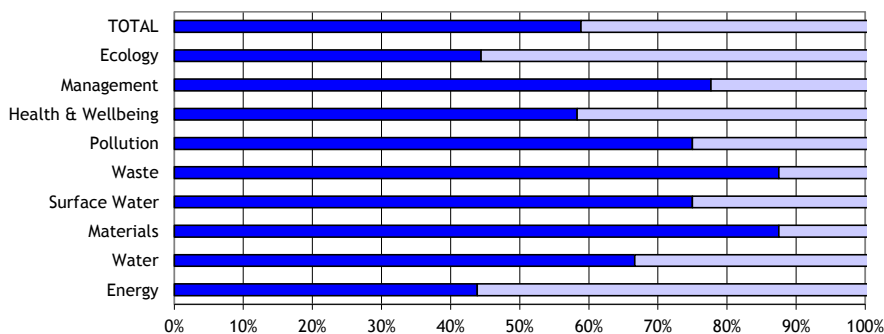
% Points: 58.87% - Code Level: 3

Breakdown: Energy - Code Level: 3
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.

CATEGORY 1 ENERGY		Overall Level: 3	Overall Score	58.87	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 43.87		Credits	Level			
Contribution to Overall % Score: 15.96 points		13.6 of 31 Credits	Level 3			
Ene 1 Dwelling Emission Rate	Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score _____ What is the predicted number of credits? 0.6 OR Are zero net CO₂ emissions achieved? ☐	0.6 of 10 Credits	Level 3	SAP calculations of unit type DA21 indicative only.		
Ene 2 Fabric Energy Efficiency	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. Enter the predicted score _____ Apartments, Mid-terrace ☒ OR End terrace, Semi and Detached ☐ OR Staggered Mid terrace ☐ What is the predicted number of credits? 5.0	5.0 of 9 Credits	-	Representative Housetypes provided		
Ene 3 Energy Display Devices	Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption. Select whether the EDD monitors electricity and/or fuel _____ None Specified ☐ Primary Heating only ☐ OR Electricity only ☐ OR Electricity and primary heating fuel ☒	2 of 2 Credits	-	Energy display device provided, displaying both current electricity and primary heating fuel consumption data.	Letter from Developer.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Ene 4 Drying Space	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. Will drying space meeting the criteria be provided? _____ Yes ☒ OR No ☐	1 of 1 Credits	-	External rotary dryer provided.	Letter from Developer.
Ene 5 Energy Labelled White Goods	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. Select the appropriate option below _____ EU Energy labelling information <u>only</u> ☒ A+ rated appliances ☐ A rated washing machine and dishwasher ☐ B rated tumble dryer or washer dryer ☐ EU Energy labelling information provided ☐	1 of 2 Credits	-	Assumed EU Energy labelling information only supplied.	Letter from Developer.
Ene 6 External Lighting	Credits are awarded based on the provision of space lighting* with dedicated energy efficient fittings and security lighting fittings with appropriate control gear.. Space Lighting _____ None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting ☒ Security Lighting _____ None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting and controls ☒ Dual lamp luminaires _____ Compliant with both above criteria ☐ * Statutory safety lighting is not covered by this requirement	2 of 2 Credits	-	Assumed internal Code compliant lighting. External lighting compliant.	Letter from Developer.

* Statutory safety lighting is not covered by this requirement

Issue	Credits	Level	Assumptions Made	Evidence Required		
Ene 7 Low or Zero Carbon Technologies	Credits are awarded where there is a 10% or 15% reduction in CO ₂ emissions resulting from the use of low or zero carbon technologies. Select % contribution made by low or zero carbon technologies _____ Less than 10% of demand ☒ OR 10% of demand or greater ☐ OR 15% of demand or greater ☐	0 of 2 Credits	-	Credit not sought as not all units will be fitted with Solar Thermal units.		
Ene 8 Cycle Storage	Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements. Fill in the development details below _____ Number of bedrooms: <table border="1"><tr><td>2</td></tr></table> Number of cycles stored per dwelling* <table border="1"><tr><td>1.0</td></tr></table> * if you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling	2	1.0	1 of 2 Credits	-	The provision of storage facilities is assumed and confirmation is required.
2						
1.0						
Ene 9 Home Office	A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements. Will there be provision for a Home Office? _____ Yes ☒ OR No ☐	1 of 1 Credits	-	In order to facilitate work from home, there will be provision of appropriate space and services that enable a room to be used effectively as a home office. A home office requires adequate ventilation, a window enabling a daylight factor of at least 1.5%. Home office to include 2no. power sockets, 2no. telephone points OR one broadband connection.		

CATEGORY 2 WATER		Overall Level: 3	Overall Score	58.87	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 66.66			Credits	Level		
Contribution to Overall Score: 6.00 points			4 of 6 Credits	Level 4		
Wat 1 Indoor Water Use	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.				Code level 3 mandatory indoor water consumption must be less than 105l/person/day.	Letter from Developer.
	Select the predicted water use / Mandatory Requirement _____ greater than 120 litres/ person/ day ☐ OR ≤ less than 120 litres/ person/ day ☐ OR ≤ less than 110 litres/ person/ day ☐ OR ≤ less than 105 litres/ person/ day ☒ OR ≤ less than 90 litres/ person/ day ☐ OR ≤ less than 80 litres/ person/ day ☐	3 of 5 Credits	Level 3 AND Level 4			
Wat 2 External Water Use	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.				Outdoor space provided. On this basis, a system to collect rainwater (water butt) for irrigation use will be specified.	Letter from Developer.
	Select the scenario that applies _____ No internal or communal outdoor space ☐ OR Outdoor space with collection system ☒ OR Outdoor space without collection system ☐	1 of 1 Credits	-			

CATEGORY 3 MATERIALS		Overall Level: 3	Overall Score	58.87	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.50		Credits		Level		
Contribution to Overall Score: 6.30 points		21 of 24 Credits		All Levels	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
Mat 1 Environmental Impact of Materials	Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D. 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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Enter the predicted score _____ What is the predicted number of credits? 12	12 of 15 Credits	All Levels			
Mat 2 Responsible Sourcing of Materials - Basic Building Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 6	6 of 6 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 6 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.
Mat 3 Responsible Sourcing of Materials - Finishing Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 3	3 of 3 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 3 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.

CATEGORY 4 SURFACE WATER RUN-OFF		Overall Level: 3	Overall Score	58.87
% of Section Credits Predicted: 75.00%		Credits	Level	
Contribution to Overall Score: 1.65 points		3 of 4 Credits	All Levels	
Sur 1 Management of Surface Water Run- off from developments	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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Select the appropriate option _____ No SUDS ☐ No runoff into watercourses for the first 5 mm of rainfall ☐ Runoff from hard surfaces will receive an appropriate level of treatment ☒	1 of 2 Credits	All Levels	
Sur 2 Flood Risk	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. Select the annual probability of flooding (from PPS25*) _____ Zone 1 - Low ☒ OR Zone 2 - Medium ☐ OR Zone 3 - High ☐ Select the appropriate option(s) _____ Low risk of flooding from FRA** ☒ All measures of protection are demonstrated in FRA ☐ Ground floor level and access routes are 600 mm above design flood level ☐	2 of 2 Credits	-	
* Planning Policy Statement 25 - Planning and Flood Risk ** FRA - Flood Risk Assessment				

Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
SUDS or other infiltration methods have been assumed to comply with recommendations outlined within the FRA.	Flood Risk and Drainage Assessment - Wardell Armstrong.
Identified as Zone 1 through the EA Flood Map.	Flood Risk and Drainage Assessment - Wardell Armstrong.

CATEGORY 5 WASTE		Overall Level: 3	Overall Score	58.87	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.00%			Credits	Level		
Contribution to Overall Score: 5.60 points			7 of 8 Credits	All Levels		
Was 1 Storage of non-recyclable waste and recyclable household waste	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. <u>Tradable Credits</u> are awarded for adequate internal and/ or external recycling facilities.				Ribble Valley Borough Council operates a pre-collection sorting recycling scheme covering metal, plastics and paper. Each dwelling to be provided with a triple internal recycling bin (min capacity of 30 litres) plus standard waste bin. External storage space must meet BS5906 or be of sufficient size to hold all bins provided by the local authority.	Detailed documentary evidence stating: - The location of internal and external storage; - The number, types and sizes of internal storage. A letter, leaflet, website or other published information from the Local Authority/waste scheme provider describing: - The types of waste collected; - The frequency of collection; - If there will be pre or post collection sorting.
	Mandatory Requirement					
	Will the minimum space be provided and be accessible to disabled people? ☒					
	Internal Recyclable household waste storage					
	Where there is no external recyclable waste storage and no Local Authority collection scheme					
	Internal storage (capacity 60 litres) ☐		0 of 2 Credits			
	Local Authority collection Scheme					
	Post Collection sorting					
	Internal storage (capacity 30 litres) ☐		4 of 4 Credits	All Levels		
	Pre-collection sorting					
	Internal storage (3 separate bins, capacity 30 litres) ☒					
	External Storage, no Local Authority collection scheme					
	3 separate internal storage bins (capacity 30 litres) ☐					
	AND					
	Houses					
	External Storage(capacity 180 litres) ☐		0 of 4 Credits			
	Flats ☐					
	Private recycling operator ☐					
	3 or greater types of waste collected ☐					

Issue		Credits	Level	Assumptions Made	Evidence Required
Was 2 Construction Site Waste Management	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. SWMP details _____ Does the SWMP include: + No SWMP ☐ + SWMP with targets and procedures to minimise waste? ☐ + SWMP with procedures to divert 50% of waste ☒ + SWMP with procedures to divert 85% of waste ☐	2 of 3 Credits		SWMP is mandatory requirement for developments >£300k. It is assumed the Site Waste Management Plan will include procedures and commitments for monitoring and reducing waste generated on site in accordance with best practice and the defined waste groups.	A copy of the compliant SWMP containing the appropriate benchmarks, commitments and procedures for waste minimisation and diversion from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c OR Confirmation from the developer that the SWMP includes/will include benchmarks, procedures and commitments for minimising and diverting waste from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c
Was 3 Composting	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. Select the facilities available _____ No composting facilities ☐ Individual composting facilities ☒ OR Communal/ community composting*? ☐ Local Authority ☒ OR Private with management plan ☐	1 of 1 Credit	-	Composting bin provided to each dwelling.	Letter from Developer.
* including if an automated waste collection system is in place					

CATEGORY 6 POLLUTION		Overall Level: 3	Overall Score	58.87	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 75.00%			Credits	Level		
Contribution to Overall Score: 2.10 points			3 of 4 Credits	All Levels		
Pol 1 Global Warming Potential (GWP) of Insulants	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. Select the most appropriate option _____ All insulants have a GWP less than 5 ☒ OR Some insulants have a GWP of less than 5 ☐ OR No insulants have a GWP of less than 5 ☐		1 of 1 Credits	-	Assumed that all insulants will have GWP <5.	Completed Checklist Pol 1 showing the proposed insulation materials (or none) for each element and whether they are foamed using blowing agents or unfoamed (from table Cat 6.1).
Pol 2 NOx Emissions	Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling. Select the most appropriate option _____ Greater than 100 mg/kWh ☐ OR Less than 100 mg/kWh ☐ OR Less than 70 mg/kWh ☐ OR Less than 40 mg/kWh ☐ OR Class 4 boiler ☐ OR Class 5 boiler ☒ OR All space and hot water energy requirements are met by systems who do not produce NOx emissions ☐		2 of 3 Credits	-	Assumed 'Ideal Logic' boilers with Class 5 NOx emissions to be specified in each dwelling.	Letter from Developer.

CATEGORY 7 HEALTH & WELLBEING		Overall Level: 3	Overall Score	58.87	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 58.00%			Credits	Level		
Contribution to Overall Score: 8.16 points			7 of 12 Credits	No level		
Hea 1 Daylighting	Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.				Provisional Calculations demonstrate compliance with this issue.	Letter from Architect.
	Select the compliant areas _____ <u>Room</u> Kitchen: Avg DF of at least 2% ☐ Living Room*: Avg DF of at least 1.5% ☒ Dining Room*: Avg DF of at least 1.5% ☒ Study*: Avg DF of at least 1.5% ☒ 80% of working plane in all above rooms receive direct light from the sky? ☒ Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%.	2 of 3 Credits	-			
Hea 2 Sound Insulation	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.				Robust details used (E-WM-20)	Letter from Developer/Manufacturer
	Select a type of property _____ Detached Property ☐ Attached Properties: - Separating walls and floors only exist between non habitable spaces ☐ - Separating walls and floors exist between habitable spaces ☒ Select a performance standard _____ Performance standard not sought ☐ Airborne: 3db higher; Impact: 3dB lower ☐ OR Airborne: 5db higher; Impact: 5dB lower ☐ OR Airborne: 8db higher; Impact: 8dB lower ☒	4 of 4 Credits	-			

Issue		Credits	Level	Assumptions Made	Evidence Required
Hea 3 Private Space	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. Will a private/ semi-private space be provided? _____ Yes, private/semi-private space will be provided ☒ OR No private/semi-private space ☐	1 of 1 Credits	-	Based on assumption from drawings.	Letter from Developer.
Hea 4 Lifetime Homes	<u>Mandatory Requirement:</u> Lifetime Homes is mandatory when a dwelling is to achieve Code Level 6. <u>Tradable credits:</u> Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme. Mandatory Requirement _____ Dwelling to achieve Code Level 6? ☐ Lifetime Homes Compliance _____ All Lifetime Homes criteria will be met ☐ OR Exemption from LTH criteria 2/3 applied ☐ Credit not sought ☒	0 of 4 Credits	No level	Credit not sought	

CATEGORY 8 MANAGEMENT		Overall Level: 3	Overall Score	58.87	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 77.00%		Credits	Level			
Contribution to Overall Score: 7.77 points		7 of 9 Credits	All Levels			
Man 1 Home User Guide	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. Tick the topics covered by the Home User Guide _____ Operational Issues? ☒ Site and Surroundings? ☒ Is available in alternative formats? ☒	3 of 3 Credits	-	Home User Guide will be provided.	Letter from Developer.	
Man 2 Considerate Constructors Scheme	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. Select the appropriate scheme and score _____ No scheme used ☒ <u>Considerate Constructors</u> OR Best Practice: Score between 24 and 31.5 ☐ OR Best Practice+: Score between 32 and 40 ☐ <u>Alternative Scheme*</u> OR Mandatory + 50% optional requirements ☐ OR Mandatory + 80% optional requirements ☐ * In the first instance, contact a Code Service Provider if you are considering to use an alternative scheme.	0 of 2 Credits	-			
Man 3 Construction Site Impacts	Credits are awarded where there is a commitment and strategy to operate site management procedures on site as following: Tick the impacts that will be addressed _____ <u>Monitor, report and set targets, where applicable, for:</u> - CO ₂ / energy use from site activities ☒ - CO ₂ / energy use from site related transport ☐ - water consumption from site activities ☒ <u>Adopt best practice policies in respect of:</u> - air (dust) pollution from site activities ☒ - water (ground and surface) pollution on site ☒ <u>80% of site timber</u> is reclaimed, re-used or responsibly sourced ☒	2 of 2 Credits	-	Monitor, report & target CO ₂ / Energy & water use from site activities PLUS best practice in respect of air & water pollution.	Completed copy of Checklist Man 3 (signed and dated) detailing the procedures that will be employed to minimise construction site impacts.	

Issue	Credits	Level	Assumptions Made	Evidence Required
Man 4 Security	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.		An ALO/CPDA has been consulted to ensure that requirements of Section 2 - Physical Security from 'Secured by Design - New Homes' are met.	Crime Impact Report Letter from Developer showing that recommendations have been implemented on site,
	Secured by Design Compliance Credit not sought OR Secured by Design Section 2 Compliance ☐ ☒	2 of 2 Credits		

CATEGORY 9 ECOLOGY		Overall Level: 3	Overall Score	58.87	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 44.00%		Credits	Level			
Contribution to Overall Score: 5.33 points		4 of 9 Credits	All Levels			
Eco 1 Ecological Value of Site	One credit is awarded for developing land of inherently low value. Select the appropriate option _____ Credit not sought ☐ OR Land has ecological value ☒ OR Land has low/ insignificant ecological value* ☐ * 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.	0 of 1 Credits	-	Site assumed to be of ecological value due to presence of mature hedgerows and a water course.	Ecological Appraisal - FPCR - November 2010	
Eco 2 Ecological Enhancement	A credit is awarded where there is a commitment to enhance the ecological value of the development site. Tick the appropriate boxes _____ Will a <i>Suitably Qualified Ecologist</i> be appointed to recommend appropriate ecological features? ☒ AND Will all key recommendations be adopted? ☒ AND 30% of other recommendations be adopted? ☒	1 of 1 Credits	-	Trees and Hedgerows will be maintained where feasible and viable, in line with recommendations from the ecological report. Vegetation will be cleared outside of the Bird breeding season, in line with recommendations from the ecological report.	Ecological Appraisal - FPCR - November 2010	
Eco 3 Protection of Ecological Features	A credit is awarded where there is a commitment to maintain and adequately protect features of ecological value. Type and protection of existing features _____ Site with features of ecological value? ☒ OR Site of low ecological value (as Eco 1)? ☐ AND All* existing features potentially affected by site works are maintained and adequately protected? ☒ *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.	1 of 1 Credits	-	See above		

Issue	Credits		Level	Assumptions Made	Evidence Required
Eco 4 Change of Ecological Value of Site	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 _____ Major negative change: fewer than -9 ☐ Minor negative change: between -9 and -3 ☐ OR Neutral: between -3 and +3 ☒ Minor enhancement: between +3 and +9 ☐ Major enhancement: greater than 9 ☐	2 of 4 Credits	-	Ecologocal Value assumed based on Ecological Appraisal - FPCR.	Code for Sustainable Homes Ecology Report Template completed by Ecologist and written confirmation from the developer that recommendations have been implemented.
Eco 5 Building Footprint	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 _____ Credit Not Sought ☒ OR Houses: 2.5:1 OR Flats: 3:1 ☐ OR Houses: 3:1 OR Flats: 4:1 ☐ OR Houses & Flats Weighted (2.5:1 & 3:1) ☐ OR Houses & Flats Weighted (3:1 & 4:1) ☐	0 of 2 Credits			



Results

Development Name:	Henthorn Road, Clitheroe
Dwelling Description:	PA34 - 3 Semi Detached House
Name of Company:	NJL Consulting LLP
Code Assessor's Name:	Juan Murray
Company Address:	Adamson House Towers Business Park Wilmslow Road Manchester
Notes/Comments:	

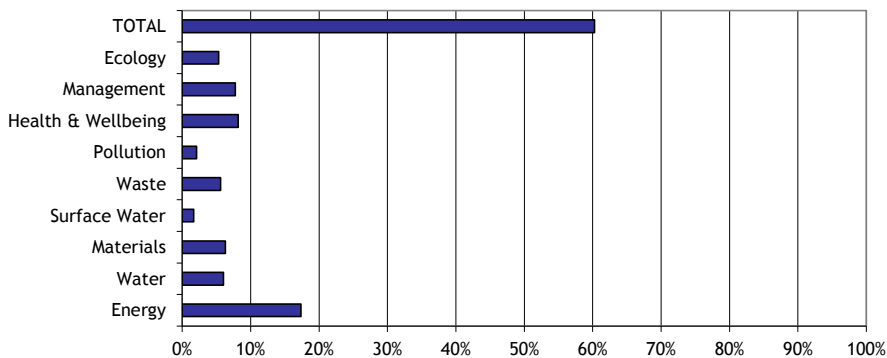
PREDICTED RATING - CODE LEVEL: 3

Mandatory Requirements: All Levels

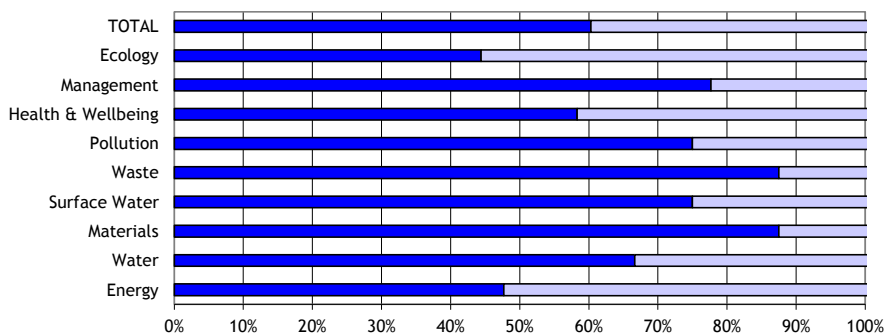
% Points: 60.28% - Code Level: 3

Breakdown: Energy - Code Level: 3
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.

CATEGORY 1 ENERGY		Overall Level: 3	Overall Score	60.28	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 47.74			Credits	Level		
Contribution to Overall % Score: 17.37 points			14.8 of 31 Credits	Level 3		
Ene 1 Dwelling Emission Rate	Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score _____ What is the predicted number of credits? 1.8 OR Are zero net CO₂ emissions achieved? ☐	1.8 of 10 Credits	Level 3	SAP calculations of unit type DA34 indicative only.		
Ene 2 Fabric Energy Efficiency	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. Enter the predicted score _____ Apartments, Mid-terrace ☐ OR End terrace, Semi and Detached ☒ OR Staggered Mid terrace ☐ What is the predicted number of credits? 5.0	5.0 of 9 Credits	-	Representative Housetypes provided		
Ene 3 Energy Display Devices	Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption. Select whether the EDD monitors electricity and/or fuel _____ None Specified ☐ Primary Heating only ☐ OR Electricity only ☐ OR Electricity and primary heating fuel ☒	2 of 2 Credits	-	Energy display device provided, displaying both current electricity and primary heating fuel consumption data.	Letter from Developer.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Ene 4 Drying Space	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. Will drying space meeting the criteria be provided? _____ Yes ☒ OR No ☐	1 of 1 Credits	-	External rotary dryer provided.	Letter from Developer.
Ene 5 Energy Labelled White Goods	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. Select the appropriate option below _____ EU Energy labelling information <u>only</u> ☒ A+ rated appliances ☐ A rated washing machine and dishwasher ☐ B rated tumble dryer or washer dryer ☐ EU Energy labelling information provided ☐	1 of 2 Credits	-	Assumed EU Energy labelling information only supplied.	Letter from Developer.
Ene 6 External Lighting	Credits are awarded based on the provision of space lighting* with dedicated energy efficient fittings and security lighting fittings with appropriate control gear.. Space Lighting _____ None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting ☒ Security Lighting _____ None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting and controls ☒ Dual lamp luminaires _____ Compliant with both above criteria ☐ * Statutory safety lighting is not covered by this requirement	2 of 2 Credits	-	Assumed internal Code compliant lighting. External lighting compliant.	Letter from Developer.

* Statutory safety lighting is not covered by this requirement

Issue		Credits	Level	Assumptions Made	Evidence Required		
Ene 7 Low or Zero Carbon Technologies	Credits are awarded where there is a 10% or 15% reduction in CO₂ emissions resulting from the use of low or zero carbon technologies. Select % contribution made by low or zero carbon technologies _____ Less than 10% of demand ☒ OR 10% of demand or greater ☐ OR 15% of demand or greater ☐	0 of 2 Credits	-	Credit not sought as not all units will be fitted with Solar Thermal units.			
Ene 8 Cycle Storage	Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements. Fill in the development details below _____ Number of bedrooms: <table border="1"><tr><td>3</td></tr></table> Number of cycles stored per dwelling* <table border="1"><tr><td>1.0</td></tr></table> * if you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling	3	1.0	1 of 2 Credits	-	The provision of storage facilities is assumed and confirmation is required.	Letter from Developer.
3							
1.0							
Ene 9 Home Office	A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements. Will there be provision for a Home Office? _____ Yes ☒ OR No ☐	1 of 1 Credits	-	In order to facilitate work from home, there will be provision of appropriate space and services that enable a room to be used effectively as a home office. A home office requires adequate ventilation, a window enabling a daylight factor of at least 1.5%. Home office to include 2no. power sockets, 2no. telephone points OR one broadband connection.	Letter from Developer.		

CATEGORY 2 WATER		Overall Level: 3	Overall Score	60.28	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 66.66			Credits	Level		
Contribution to Overall Score: 6.00 points			4 of 6 Credits	Level 4		
Wat 1 Indoor Water Use	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.				Code level 3 mandatory indoor water consumption must be less than 105l/person/day.	Letter from Developer.
	Select the predicted water use / Mandatory Requirement _____ greater than 120 litres/ person/ day ☐ OR ≤ less than 120 litres/ person/ day ☐ OR ≤ less than 110 litres/ person/ day ☐ OR ≤ less than 105 litres/ person/ day ☒ OR ≤ less than 90 litres/ person/ day ☐ OR ≤ less than 80 litres/ person/ day ☐	3 of 5 Credits	Level 3 AND Level 4			
Wat 2 External Water Use	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.				Outdoor space provided. On this basis, a system to collect rainwater (water butt) for irrigation use will be specified.	Letter from Developer.
	Select the scenario that applies _____ No internal or communal outdoor space ☐ OR Outdoor space with collection system ☒ OR Outdoor space without collection system ☐	1 of 1 Credits	-			

CATEGORY 3 MATERIALS		Overall Level: 3	Overall Score	60.28	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.50		Credits		Level		
Contribution to Overall Score: 6.30 points		21 of 24 Credits		All Levels	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
Mat 1 Environmental Impact of Materials	Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D. 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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Enter the predicted score _____ What is the predicted number of credits? 12	12 of 15 Credits	All Levels			
Mat 2 Responsible Sourcing of Materials - Basic Building Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 6	6 of 6 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 6 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.
Mat 3 Responsible Sourcing of Materials - Finishing Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 3	3 of 3 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 3 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.

CATEGORY 4 SURFACE WATER RUN-OFF		Overall Level: 3	Overall Score	60.28
% of Section Credits Predicted: 75.00%		Credits	Level	
Contribution to Overall Score: 1.65 points		3 of 4 Credits	All Levels	
Sur 1 Management of Surface Water Run- off from developments	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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Select the appropriate option _____ No SUDS ☐ No runoff into watercourses for the first 5 mm of rainfall ☐ Runoff from hard surfaces will receive an appropriate level of treatment ☒	1 of 2 Credits	All Levels	
Sur 2 Flood Risk	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. Select the annual probability of flooding (from PPS25*) _____ Zone 1 - Low ☒ OR Zone 2 - Medium ☐ OR Zone 3 - High ☐ Select the appropriate option(s) _____ Low risk of flooding from FRA** ☒ All measures of protection are demonstrated in FRA ☐ Ground floor level and access routes are 600 mm above design flood level ☐	2 of 2 Credits	-	
* Planning Policy Statement 25 - Planning and Flood Risk ** FRA - Flood Risk Assessment				

Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
SUDS or other infiltration methods have been assumed to comply with recommendations outlined within the FRA.	Flood Risk and Drainage Assessment - Wardell Armstrong.
Identified as Zone 1 through the EA Flood Map.	Flood Risk and Drainage Assessment - Wardell Armstrong.

CATEGORY 5 WASTE		Overall Level: 3	Overall Score	60.28	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.00%			Credits	Level		
Contribution to Overall Score: 5.60 points			7 of 8 Credits	All Levels		
Was 1 Storage of non-recyclable waste and recyclable household waste	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. <u>Tradable Credits</u> are awarded for adequate internal and/ or external recycling facilities.				Ribble Valley Borough Council operates a pre-collection sorting recycling scheme covering metal, plastics and paper. Each dwelling to be provided with a triple internal recycling bin (min capacity of 30 litres) plus standard waste bin. External storage space must meet BS5906 or be of sufficient size to hold all bins provided by the local authority.	Detailed documentary evidence stating: - The location of internal and external storage; - The number, types and sizes of internal storage. A letter, leaflet, website or other published information from the Local Authority/waste scheme provider describing: - The types of waste collected; - The frequency of collection; - If there will be pre or post collection sorting.
	Mandatory Requirement					
	Will the minimum space be provided and be accessible to disabled people? ☒					
	Internal Recyclable household waste storage					
	Where there is no external recyclable waste storage and no Local Authority collection scheme					
	Internal storage (capacity 60 litres) ☐		0 of 2 Credits			
	Local Authority collection Scheme					
	Post Collection sorting					
	Internal storage (capacity 30 litres) ☐		4 of 4 Credits	All Levels		
	Pre-collection sorting					
	Internal storage (3 separate bins, capacity 30 litres) ☒					
	External Storage, no Local Authority collection scheme					
	3 separate internal storage bins (capacity 30 litres) ☐					
	AND					
	Houses					
	External Storage(capacity 180 litres) ☐		0 of 4 Credits			
	Flats ☐					
	Private recycling operator ☐					
	3 or greater types of waste collected ☐					

Issue		Credits	Level	Assumptions Made	Evidence Required
Was 2 Construction Site Waste Management	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. SWMP details _____ Does the SWMP include: + No SWMP ☐ + SWMP with targets and procedures to minimise waste? ☐ + SWMP with procedures to divert 50% of waste ☒ + SWMP with procedures to divert 85% of waste ☐	2 of 3 Credits		SWMP is mandatory requirement for developments >£300k. It is assumed the Site Waste Management Plan will include procedures and commitments for monitoring and reducing waste generated on site in accordance with best practice and the defined waste groups.	A copy of the compliant SWMP containing the appropriate benchmarks, commitments and procedures for waste minimisation and diversion from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c OR Confirmation from the developer that the SWMP includes/will include benchmarks, procedures and commitments for minimising and diverting waste from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c
Was 3 Composting	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. Select the facilities available _____ No composting facilities ☐ Individual composting facilities ☒ OR Communal/ community composting*? ☐ Local Authority ☒ OR Private with management plan ☐	1 of 1 Credit	-	Composting bin provided to each dwelling.	Letter from Developer.
* including if an automated waste collection system is in place					

CATEGORY 6 POLLUTION		Overall Level: 3	Overall Score	60.28	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 75.00%			Credits	Level		
Contribution to Overall Score: 2.10 points			3 of 4 Credits	All Levels		
Pol 1 Global Warming Potential (GWP) of Insulants	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. Select the most appropriate option _____ All insulants have a GWP less than 5 ☒ OR Some insulants have a GWP of less than 5 ☐ OR No insulants have a GWP of less than 5 ☐		1 of 1 Credits	-	Assumed that all insulants will have GWP <5.	Completed Checklist Pol 1 showing the proposed insulation materials (or none) for each element and whether they are foamed using blowing agents or unfoamed (from table Cat 6.1).
Pol 2 NOx Emissions	Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling. Select the most appropriate option _____ Greater than 100 mg/kWh ☐ OR Less than 100 mg/kWh ☐ OR Less than 70 mg/kWh ☐ OR Less than 40 mg/kWh ☐ OR Class 4 boiler ☐ OR Class 5 boiler ☒ OR All space and hot water energy requirements are met by systems who do not produce NOx emissions ☐		2 of 3 Credits	-	Assumed 'Ideal Logic' boilers with Class 5 NOx emissions to be specified in each dwelling.	Letter from Developer.

CATEGORY 7 HEALTH & WELLBEING		Overall Level: 3	Overall Score	60.28	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 58.00%		Credits	Level			
Contribution to Overall Score: 8.16 points		7 of 12 Credits	No level			
Hea 1 Daylighting	Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.			Provisional Calculations demonstrate compliance with this issue.	Letter from Architect.	
	Select the compliant areas Room Kitchen: Avg DF of at least 2%☐ Living Room*: Avg DF of at least 1.5%☒ Dining Room*: Avg DF of at least 1.5%☒ Study*: Avg DF of at least 1.5%☒ 80% of working plane in all above rooms receive direct light from the sky?☒ Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%. 2 of 3 Credits -					
Hea 2 Sound Insulation	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.			Robust details used (E-WM-20)	Letter from Developer/Manufacturer	
	Select a type of property Detached Property☐ Attached Properties: - Separating walls and floors only exist between non habitable spaces☐ - Separating walls and floors exist between habitable spaces☒ Select a performance standard Performance standard not sought☐ Airborne: 3db higher; Impact: 3dB lower☐ OR Airborne: 5db higher; Impact: 5dB lower☐ OR Airborne: 8db higher; Impact: 8dB lower☒ 4 of 4 Credits -					

Issue		Credits	Level	Assumptions Made	Evidence Required
Hea 3 Private Space	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. Will a private/ semi-private space be provided? _____ Yes, private/semi-private space will be provided ☒ OR No private/semi-private space ☐	1 of 1 Credits	-	Based on assumption from drawings.	Letter from Developer.
Hea 4 Lifetime Homes	<u>Mandatory Requirement:</u> Lifetime Homes is mandatory when a dwelling is to achieve Code Level 6. <u>Tradable credits:</u> Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme. Mandatory Requirement _____ Dwelling to achieve Code Level 6? ☐ Lifetime Homes Compliance _____ All Lifetime Homes criteria will be met ☐ OR Exemption from LTH criteria 2/3 applied ☐ Credit not sought ☒	0 of 4 Credits	No level	Credit not sought	

CATEGORY 8 MANAGEMENT		Overall Level: 3	Overall Score	60.28	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 77.00%		Credits	Level			
Contribution to Overall Score: 7.77 points		7 of 9 Credits	All Levels			
Man 1 Home User Guide	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. Tick the topics covered by the Home User Guide _____ Operational Issues? ☒ Site and Surroundings? ☒ Is available in alternative formats? ☒	3 of 3 Credits	-	Home User Guide will be provided.	Letter from Developer.	
Man 2 Considerate Constructors Scheme	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. Select the appropriate scheme and score _____ No scheme used ☒ <u>Considerate Constructors</u> OR Best Practice: Score between 24 and 31.5 ☐ OR Best Practice+: Score between 32 and 40 ☐ <u>Alternative Scheme*</u> OR Mandatory + 50% optional requirements ☐ OR Mandatory + 80% optional requirements ☐ * In the first instance, contact a Code Service Provider if you are considering to use an alternative scheme.	0 of 2 Credits	-			
Man 3 Construction Site Impacts	Credits are awarded where there is a commitment and strategy to operate site management procedures on site as following: Tick the impacts that will be addressed _____ <u>Monitor, report and set targets, where applicable, for:</u> - CO ₂ / energy use from site activities ☒ - CO ₂ / energy use from site related transport ☐ - water consumption from site activities ☒ <u>Adopt best practice policies in respect of:</u> - air (dust) pollution from site activities ☒ - water (ground and surface) pollution on site ☒ <u>80% of site timber</u> is reclaimed, re-used or responsibly sourced ☒	2 of 2 Credits	-	Monitor, report & target CO ₂ / Energy & water use from site activities PLUS best practice in respect of air & water pollution.	Completed copy of Checklist Man 3 (signed and dated) detailing the procedures that will be employed to minimise construction site impacts.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Man 4 Security	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.			An ALO/CPDA has been consulted to ensure that requirements of Section 2 - Physical Security from 'Secured by Design - New Homes' are met.	Crime Impact Report Letter from Developer showing that recommendations have been implemented on site,
	Secured by Design Compliance Credit not sought OR Secured by Design Section 2 Compliance ☐ ☒	2 of 2 Credits	-		

CATEGORY 9 ECOLOGY		Overall Level: 3	Overall Score	60.28	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 44.00%		Credits	Level			
Contribution to Overall Score: 5.33 points		4 of 9 Credits	All Levels			
Eco 1 Ecological Value of Site	One credit is awarded for developing land of inherently low value. Select the appropriate option _____ Credit not sought ☐ OR Land has ecological value ☒ OR Land has low/ insignificant ecological value* ☐ * 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.	0 of 1 Credits	-	Site assumed to be of ecological value due to presence of mature hedgerows and a water course.	Ecological Appraisal - FPCR - November 2010	
Eco 2 Ecological Enhancement	A credit is awarded where there is a commitment to enhance the ecological value of the development site. Tick the appropriate boxes _____ Will a <i>Suitably Qualified Ecologist</i> be appointed to recommend appropriate ecological features? ☒ AND Will all key recommendations be adopted? ☒ AND 30% of other recommendations be adopted? ☒	1 of 1 Credits	-	Trees and Hedgerows will be maintained where feasible and viable, in line with recommendations from the ecological report. Vegetation will be cleared outside of the Bird breeding season, in line with recommendations from the ecological report.	Ecological Appraisal - FPCR - November 2010	
Eco 3 Protection of Ecological Features	A credit is awarded where there is a commitment to maintain and adequately protect features of ecological value. Type and protection of existing features _____ Site with features of ecological value? ☒ OR Site of low ecological value (as Eco 1)? ☐ AND All* existing features potentially affected by site works are maintained and adequately protected? ☒ *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.	1 of 1 Credits	-	See above		

Issue	Credits		Level	Assumptions Made	Evidence Required
Eco 4 Change of Ecological Value of Site	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 _____ Major negative change: fewer than -9 ☐ Minor negative change: between -9 and -3 ☐ OR Neutral: between -3 and +3 ☒ Minor enhancement: between +3 and +9 ☐ Major enhancement: greater than 9 ☐	2 of 4 Credits	-	Ecologocal Value assumed based on Ecological Appraisal - FPCR.	Code for Sustainable Homes Ecology Report Template completed by Ecologist and written confirmation from the developer that recommendations have been implemented.
Eco 5 Building Footprint	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 _____ Credit Not Sought ☒ OR Houses: 2.5:1 OR Flats: 3:1 ☐ OR Houses: 3:1 OR Flats: 4:1 ☐ OR Houses & Flats Weighted (2.5:1 & 3:1) ☐ OR Houses & Flats Weighted (3:1 & 4:1) ☐	0 of 2 Credits			



Results

Development Name:	Henthorn Road, Clitheroe
Dwelling Description:	PA42 - 4 Bed Semi Detached House - Affordable
Name of Company:	NJL Consulting LLP
Code Assessor's Name:	Juan Murray
Company Address:	Adamson House Towers Business Park Wilmslow Road Manchester
Notes/Comments:	

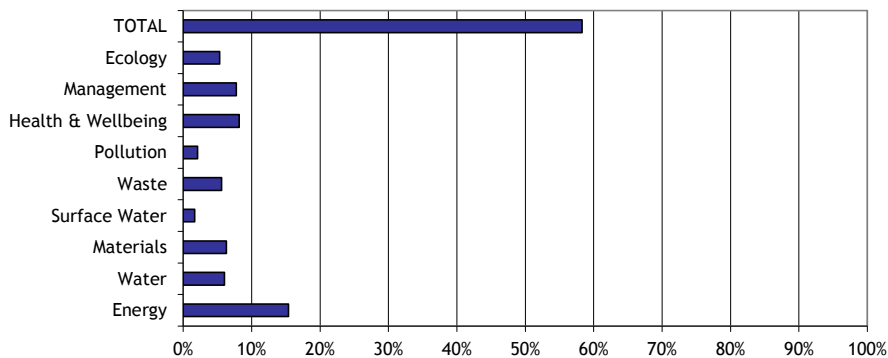
PREDICTED RATING - CODE LEVEL: 3

Mandatory Requirements: All Levels

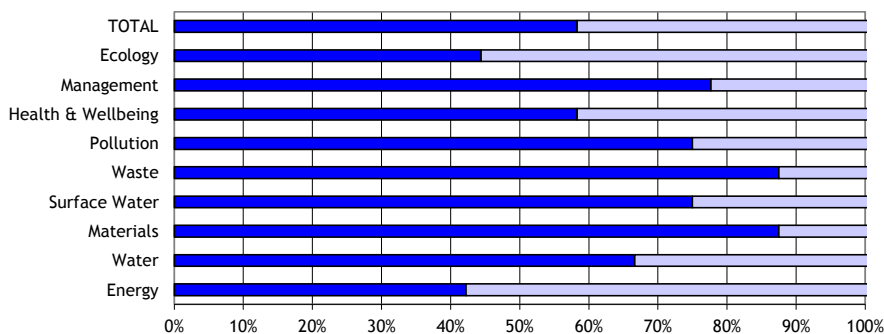
% Points: 58.29% - Code Level: 3

Breakdown: Energy - Code Level: 3
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.

CATEGORY 1 ENERGY		Overall Level: 3	Overall Score	58.29	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 42.25		Credits	Level			
Contribution to Overall % Score: 15.38 points		13.1 of 31 Credits	Level 3			
Ene 1 Dwelling Emission Rate	Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score _____ What is the predicted number of credits? 0.1 OR Are zero net CO ₂ emissions achieved? ☐	0.1 of 10 Credits	Level 3	SAP calculations of unit type PA42 indicative only.		
Ene 2 Fabric Energy Efficiency	Credits are awarded based on the Fabric Energy Efficiency (kWh/m ² /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. Enter the predicted score _____ Apartments, Mid-terrace ☐ OR End terrace, Semi and Detached ☒ OR Staggered Mid terrace ☐ What is the predicted number of credits? 5.0	5.0 of 9 Credits	-	Representative Housetypes provided.		
Ene 3 Energy Display Devices	Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption. Select whether the EDD monitors electricity and/or fuel _____ None Specified ☐ Primary Heating only ☐ OR Electricity only ☐ OR Electricity and primary heating fuel ☒	2 of 2 Credits	-	Energy display device provided, displaying both current electricity and primary heating fuel consumption data.	Letter from Developer.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Ene 4 Drying Space	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. Will drying space meeting the criteria be provided? _____ Yes OR No ☒ ☐	1 of 1 Credits	-	External rotary dryer provided.	Letter from Developer.
Ene 5 Energy Labelled White Goods	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. Select the appropriate option below _____ EU Energy labelling information <u>only</u> A+ rated appliances A rated washing machine and dishwasher B rated tumble dryer or washer dryer EU Energy labelling information provided ☒ ☐ ☐ ☐ ☐	1 of 2 Credits	-	Assumed EU Energy labelling information only supplied.	Letter from Developer.
Ene 6 External Lighting	Credits are awarded based on the provision of space lighting* with dedicated energy efficient fittings and security lighting fittings with appropriate control gear.. Space Lighting _____ None provided OR Non Code compliant lighting OR Code compliant lighting ☐ ☐ ☒ Security Lighting _____ None provided OR Non Code compliant lighting OR Code compliant lighting and controls ☐ ☐ ☒ Dual lamp luminaires _____ Compliant with both above criteria ☐ * Statutory safety lighting is not covered by this requirement	2 of 2 Credits	-	Assumed internal Code compliant lighting. External lighting compliant.	Letter from Developer.

* Statutory safety lighting is not covered by this requirement

Issue	Credits	Level	Assumptions Made	Evidence Required		
Ene 7 Low or Zero Carbon Technologies	Credits are awarded where there is a 10% or 15% reduction in CO ₂ emissions resulting from the use of low or zero carbon technologies. Select % contribution made by low or zero carbon technologies _____ Less than 10% of demand ☒ OR 10% of demand or greater ☐ OR 15% of demand or greater ☐	0 of 2 Credits	-	Credit not sought as not all units will be fitted with Solar Thermal units.		
Ene 8 Cycle Storage	Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements. Fill in the development details below _____ Number of bedrooms: <table border="1"><tr><td>4</td></tr></table> Number of cycles stored per dwelling* <table border="1"><tr><td>2.0</td></tr></table> * if you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling	4	2.0	1 of 2 Credits	-	The provision of storage facilities is assumed and confirmation is required.
4						
2.0						
Ene 9 Home Office	A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements. Will there be provision for a Home Office? _____ Yes ☒ OR No ☐	1 of 1 Credits	-	In order to facilitate work from home, there will be provision of appropriate space and services that enable a room to be used effectively as a home office. A home office requires adequate ventilation, a window enabling a daylight factor of at least 1.5%. Home office to include 2no. power sockets, 2no. telephone points OR one broadband connection.		

CATEGORY 2 WATER		Overall Level: 3	Overall Score	58.29	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 66.66			Credits	Level		
Contribution to Overall Score: 6.00 points			4 of 6 Credits	Level 4		
Wat 1 Indoor Water Use	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.				Code level 3 mandatory indoor water consumption must be less than 105l/person/day.	Letter from Developer.
	Select the predicted water use / Mandatory Requirement _____ greater than 120 litres/ person/ day ☐ OR ≤ less than 120 litres/ person/ day ☐ OR ≤ less than 110 litres/ person/ day ☐ OR ≤ less than 105 litres/ person/ day ☒ OR ≤ less than 90 litres/ person/ day ☐ OR ≤ less than 80 litres/ person/ day ☐	3 of 5 Credits	Level 3 AND Level 4			
Wat 2 External Water Use	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.				Outdoor space provided. On this basis, a system to collect rainwater (water butt) for irrigation use will be specified.	Letter from Developer.
	Select the scenario that applies _____ No internal or communal outdoor space ☐ OR Outdoor space with collection system ☒ OR Outdoor space without collection system ☐	1 of 1 Credits	-			

CATEGORY 3 MATERIALS		Overall Level: 3	Overall Score	58.29	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.50		Credits		Level		
Contribution to Overall Score: 6.30 points		21 of 24 Credits		All Levels	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
Mat 1 Environmental Impact of Materials	Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D. 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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Enter the predicted score _____ What is the predicted number of credits? 12	12 of 15 Credits	All Levels			
Mat 2 Responsible Sourcing of Materials - Basic Building Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 6	6 of 6 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 6 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.
Mat 3 Responsible Sourcing of Materials - Finishing Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 3	3 of 3 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 3 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.

CATEGORY 4 SURFACE WATER RUN-OFF		Overall Level: 3	Overall Score	58.29
% of Section Credits Predicted: 75.00%		Credits	Level	
Contribution to Overall Score: 1.65 points		3 of 4 Credits	All Levels	
Sur 1 Management of Surface Water Run- off from developments	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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Select the appropriate option _____ No SUDS ☐ No runoff into watercourses for the first 5 mm of rainfall ☐ Runoff from hard surfaces will receive an appropriate level of treatment ☒	1 of 2 Credits	All Levels	
Sur 2 Flood Risk	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. Select the annual probability of flooding (from PPS25*) _____ Zone 1 - Low ☒ OR Zone 2 - Medium ☐ OR Zone 3 - High ☐ Select the appropriate option(s) _____ Low risk of flooding from FRA** ☒ All measures of protection are demonstrated in FRA ☐ Ground floor level and access routes are 600 mm above design flood level ☐	2 of 2 Credits	-	
* Planning Policy Statement 25 - Planning and Flood Risk ** FRA - Flood Risk Assessment				

Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
SUDS or other infiltration methods have been assumed to comply with recommendations outlined within the FRA.	Flood Risk and Drainage Assessment - Wardell Armstrong.
Identified as Zone 1 through the EA Flood Map.	Flood Risk and Drainage Assessment - Wardell Armstrong.

CATEGORY 5 WASTE		Overall Level: 3	Overall Score	58.29	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.00%			Credits	Level		
Contribution to Overall Score: 5.60 points			7 of 8 Credits	All Levels		
Was 1 Storage of non-recyclable waste and recyclable household waste	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. <u>Tradable Credits</u> are awarded for adequate internal and/ or external recycling facilities.				Ribble Valley Borough Council operates a pre-collection sorting recycling scheme covering metal, plastics and paper. Each dwelling to be provided with a triple internal recycling bin (min capacity of 30 litres) plus standard waste bin. External storage space must meet BS5906 or be of sufficient size to hold all bins provided by the local authority.	Detailed documentary evidence stating: - The location of internal and external storage; - The number, types and sizes of internal storage. A letter, leaflet, website or other published information from the Local Authority/waste scheme provider describing: - The types of waste collected; - The frequency of collection; - If there will be pre or post collection sorting.
	Mandatory Requirement					
	Will the minimum space be provided and be accessible to disabled people? ☒					
	Internal Recyclable household waste storage					
	Where there is no external recyclable waste storage and no Local Authority collection scheme					
	Internal storage (capacity 60 litres) ☐		0 of 2 Credits			
	Local Authority collection Scheme					
	Post Collection sorting					
	Internal storage (capacity 30 litres) ☐		4 of 4 Credits	All Levels		
	Pre-collection sorting					
	Internal storage (3 separate bins, capacity 30 litres) ☒					
	External Storage, no Local Authority collection scheme					
	3 separate internal storage bins (capacity 30 litres) ☐					
	AND					
	Houses					
	External Storage(capacity 180 litres) ☐		0 of 4 Credits			
	Flats ☐					
	Private recycling operator ☐					
	3 or greater types of waste collected ☐					

Issue		Credits	Level	Assumptions Made	Evidence Required
Was 2 Construction Site Waste Management	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. SWMP details _____ Does the SWMP include: + No SWMP ☐ + SWMP with targets and procedures to minimise waste? ☐ + SWMP with procedures to divert 50% of waste ☒ + SWMP with procedures to divert 85% of waste ☐	2 of 3 Credits		SWMP is mandatory requirement for developments >£300k. It is assumed the Site Waste Management Plan will include procedures and commitments for monitoring and reducing waste generated on site in accordance with best practice and the defined waste groups.	A copy of the compliant SWMP containing the appropriate benchmarks, commitments and procedures for waste minimisation and diversion from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c OR Confirmation from the developer that the SWMP includes/will include benchmarks, procedures and commitments for minimising and diverting waste from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c
Was 3 Composting	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. Select the facilities available _____ No composting facilities ☐ Individual composting facilities ☒ OR Communal/ community composting*? ☐ Local Authority ☒ OR Private with management plan ☐	1 of 1 Credit	-	Composting bin provided to each dwelling.	Letter from Developer.
* including if an automated waste collection system is in place					

CATEGORY 6 POLLUTION		Overall Level: 3	Overall Score	58.29	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 75.00%			Credits	Level		
Contribution to Overall Score: 2.10 points			3 of 4 Credits	All Levels		
Pol 1 Global Warming Potential (GWP) of Insulants	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. Select the most appropriate option _____ All insulants have a GWP less than 5 ☒ OR Some insulants have a GWP of less than 5 ☐ OR No insulants have a GWP of less than 5 ☐		1 of 1 Credits	-	Assumed that all insulants will have GWP <5.	Completed Checklist Pol 1 showing the proposed insulation materials (or none) for each element and whether they are foamed using blowing agents or unfoamed (from table Cat 6.1).
Pol 2 NOx Emissions	Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling. Select the most appropriate option _____ Greater than 100 mg/kWh ☐ OR Less than 100 mg/kWh ☐ OR Less than 70 mg/kWh ☐ OR Less than 40 mg/kWh ☐ OR Class 4 boiler ☐ OR Class 5 boiler ☒ OR All space and hot water energy requirements are met by systems who do not produce NOx emissions ☐		2 of 3 Credits	-	Assumed 'Ideal Logic' boilers with Class 5 NOx emissions to be specified in each dwelling.	Letter from Developer.

CATEGORY 7 HEALTH & WELLBEING		Overall Level: 3	Overall Score	58.29	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 58.00%		Credits	Level			
Contribution to Overall Score: 8.16 points		7 of 12 Credits	No level			
Hea 1 Daylighting	Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.			Provisional Calculations demonstrate compliance with this issue.	Letter from Architect.	
	Select the compliant areas Room Kitchen: Avg DF of at least 2%☐ Living Room*: Avg DF of at least 1.5%☒ Dining Room*: Avg DF of at least 1.5%☒ Study*: Avg DF of at least 1.5%☒ 80% of working plane in all above rooms receive direct light from the sky?☒ Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%. 2 of 3 Credits -					
Hea 2 Sound Insulation	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.			Robust details used (E-WM-20)	Letter from Developer/Manufacturer	
	Select a type of property Detached Property☐ Attached Properties: - Separating walls and floors only exist between non habitable spaces☐ - Separating walls and floors exist between habitable spaces☒ Select a performance standard Performance standard not sought☐ Airborne: 3db higher; Impact: 3dB lower☐ OR Airborne: 5db higher; Impact: 5dB lower☐ OR Airborne: 8db higher; Impact: 8dB lower☒ 4 of 4 Credits -					

Issue		Credits	Level	Assumptions Made	Evidence Required
Hea 3 Private Space	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. Will a private/ semi-private space be provided? _____ Yes, private/semi-private space will be provided ☒ OR No private/semi-private space ☐	1 of 1 Credits	-	Based on assumption from drawings.	Letter from Developer.
Hea 4 Lifetime Homes	<u>Mandatory Requirement:</u> Lifetime Homes is mandatory when a dwelling is to achieve Code Level 6. <u>Tradable credits:</u> Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme. Mandatory Requirement _____ Dwelling to achieve Code Level 6? ☐ Lifetime Homes Compliance _____ All Lifetime Homes criteria will be met ☐ OR Exemption from LTH criteria 2/3 applied ☐ Credit not sought ☒	0 of 4 Credits	No level	Credit not sought	

CATEGORY 8 MANAGEMENT		Overall Level: 3	Overall Score	58.29	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 77.00%		Credits	Level			
Contribution to Overall Score: 7.77 points		7 of 9 Credits	All Levels			
Man 1 Home User Guide	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. Tick the topics covered by the Home User Guide _____ Operational Issues? ☒ Site and Surroundings? ☒ Is available in alternative formats? ☒	3 of 3 Credits	-	Home User Guide will be provided.	Letter from Developer.	
Man 2 Considerate Constructors Scheme	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. Select the appropriate scheme and score _____ No scheme used ☒ <u>Considerate Constructors</u> OR Best Practice: Score between 24 and 31.5 ☐ OR Best Practice+: Score between 32 and 40 ☐ <u>Alternative Scheme*</u> OR Mandatory + 50% optional requirements ☐ OR Mandatory + 80% optional requirements ☐ * In the first instance, contact a Code Service Provider if you are considering to use an alternative scheme.	0 of 2 Credits	-			
Man 3 Construction Site Impacts	Credits are awarded where there is a commitment and strategy to operate site management procedures on site as following: Tick the impacts that will be addressed _____ <u>Monitor, report and set targets, where applicable, for:</u> - CO ₂ / energy use from site activities ☒ - CO ₂ / energy use from site related transport ☐ - water consumption from site activities ☒ <u>Adopt best practice policies in respect of:</u> - air (dust) pollution from site activities ☒ - water (ground and surface) pollution on site ☒ <u>80% of site timber</u> is reclaimed, re-used or responsibly sourced ☒	2 of 2 Credits	-	Monitor, report & target CO ₂ / Energy & water use from site activities PLUS best practice in respect of air & water pollution.	Completed copy of Checklist Man 3 (signed and dated) detailing the procedures that will be employed to minimise construction site impacts.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Man 4 Security	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.			An ALO/CPDA has been consulted to ensure that requirements of Section 2 - Physical Security from 'Secured by Design - New Homes' are met.	Crime Impact Report Letter from Developer showing that recommendations have been implemented on site,
	Secured by Design Compliance Credit not sought OR Secured by Design Section 2 Compliance ☐ ☒	2 of 2 Credits	-		

CATEGORY 9 ECOLOGY		Overall Level: 3	Overall Score	58.29	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 44.00%		Credits	Level			
Contribution to Overall Score: 5.33 points		4 of 9 Credits	All Levels			
Eco 1 Ecological Value of Site	One credit is awarded for developing land of inherently low value. Select the appropriate option _____ Credit not sought ☐ OR Land has ecological value ☒ OR Land has low/ insignificant ecological value* ☐ * 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.	0 of 1 Credits	-	Site assumed to be of ecological value due to presence of mature hedgerows and a water course.	Ecological Appraisal - FPCR - November 2010	
Eco 2 Ecological Enhancement	A credit is awarded where there is a commitment to enhance the ecological value of the development site. Tick the appropriate boxes _____ Will a <i>Suitably Qualified Ecologist</i> be appointed to recommend appropriate ecological features? ☒ AND Will all key recommendations be adopted? ☒ AND 30% of other recommendations be adopted? ☒	1 of 1 Credits	-	Trees and Hedgerows will be maintained where feasible and viable, in line with recommendations from the ecological report. Vegetation will be cleared outside of the Bird breeding season, in line with recommendations from the ecological report.	Ecological Appraisal - FPCR - November 2010	
Eco 3 Protection of Ecological Features	A credit is awarded where there is a commitment to maintain and adequately protect features of ecological value. Type and protection of existing features _____ Site with features of ecological value? ☒ OR Site of low ecological value (as Eco 1)? ☐ AND All* existing features potentially affected by site works are maintained and adequately protected? ☒ *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.	1 of 1 Credits	-	See above		

Issue	Credits		Level	Assumptions Made	Evidence Required
Eco 4 Change of Ecological Value of Site	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 _____ Major negative change: fewer than -9 ☐ Minor negative change: between -9 and -3 ☐ OR Neutral: between -3 and +3 ☒ Minor enhancement: between +3 and +9 ☐ Major enhancement: greater than 9 ☐	2 of 4 Credits	-	Ecologocal Value assumed based on Ecological Appraisal - FPCR.	Code for Sustainable Homes Ecology Report Template completed by Ecologist and written confirmation from the developer that recommendations have been implemented.
Eco 5 Building Footprint	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 _____ Credit Not Sought ☒ OR Houses: 2.5:1 OR Flats: 3:1 ☐ OR Houses: 3:1 OR Flats: 4:1 ☐ OR Houses & Flats Weighted (2.5:1 & 3:1) ☐ OR Houses & Flats Weighted (3:1 & 4:1) ☐	0 of 2 Credits			



Results

Development Name:	Henthorn Road, Clitheroe
Dwelling Description:	LINCOLN - 4 Bed Detached
Name of Company:	NJL Consulting LLP
Code Assessor's Name:	Juan Murray
Company Address:	Adamson House Towers Business Park Wilmslow Road Manchester
Notes/Comments:	

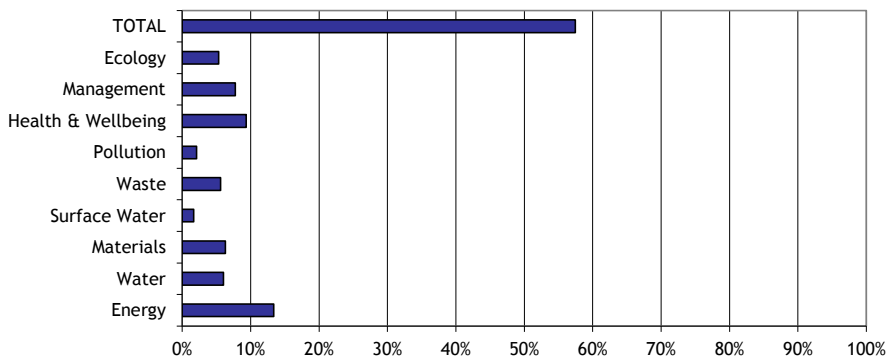
PREDICTED RATING - CODE LEVEL: 3

Mandatory Requirements: All Levels

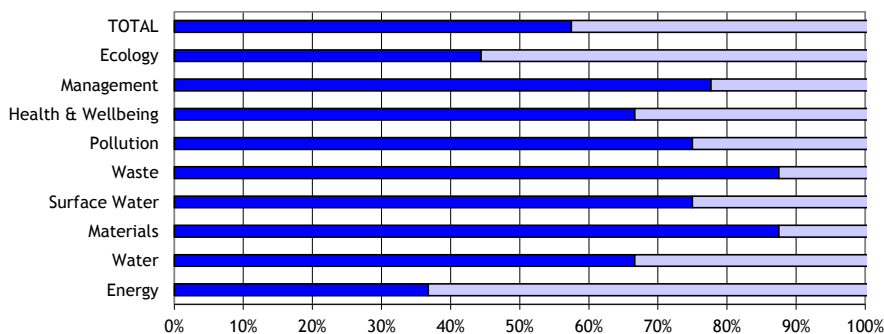
% Points: 57.46% - Code Level: 3

Breakdown: Energy - Code Level: 3
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.

CATEGORY 1 ENERGY		Overall Level: 3	Overall Score	57.46	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 36.77			Credits	Level		
Contribution to Overall % Score: 13.38 points			11.4 of 31 Credits	Level 3		
Ene 1 Dwelling Emission Rate	Credits are awarded based on the percentage improvement of the Dwelling Emission Rate (DER) over the Target Emission Rate (TER) as calculated using SAP 2009. Minimum standards for each Code level apply. The Code energy calculator can be used to calculate a predicted score. Enter the predicted score _____ What is the predicted number of credits? 0.0 OR Are zero net CO₂ emissions achieved? ☐	0.0 of 10 Credits	Level 3	SAP calculations of unit type LINCOLN indicative only.		
Ene 2 Fabric Energy Efficiency	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. Enter the predicted score _____ Apartments, Mid-terrace ☐ OR End terrace, Semi and Detached ☒ OR Staggered Mid terrace ☐ What is the predicted number of credits? 3.4	3.4 of 9 Credits	-	Representative Housetypes provided		
Ene 3 Energy Display Devices	Credits are awarded where a correctly specified Energy Display Device is installed monitoring electricity and/or primary heating fuel consumption. Select whether the EDD monitors electricity and/or fuel _____ None Specified ☐ Primary Heating only ☐ OR Electricity only ☐ OR Electricity and primary heating fuel ☒	2 of 2 Credits	-	Energy display device provided, displaying both current electricity and primary heating fuel consumption data.	Letter from Developer.	

Issue	Credits	Level	Assumptions Made	Evidence Required
Ene 4 Drying Space	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. Will drying space meeting the criteria be provided? _____ Yes ☒ OR No ☐	1 of 1 Credits	-	External rotary dryer provided. Letter from Developer.
Ene 5 Energy Labelled White Goods	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. Select the appropriate option below _____ EU Energy labelling information <u>only</u> ☒ A+ rated appliances ☐ A rated washing machine and dishwasher ☐ B rated tumble dryer or washer dryer ☐ EU Energy labelling information provided ☐	1 of 2 Credits	-	Assumed EU Energy labelling information only supplied. Letter from Developer.
Ene 6 External Lighting	Credits are awarded based on the provision of space lighting* with dedicated energy efficient fittings and security lighting fittings with appropriate control gear.. Space Lighting _____ None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting ☒ Security Lighting _____ None provided ☐ OR Non Code compliant lighting ☐ OR Code compliant lighting and controls ☒ Dual lamp luminaires _____ Compliant with both above criteria ☐ * Statutory safety lighting is not covered by this requirement	2 of 2 Credits	-	Assumed internal Code compliant lighting. External lighting compliant. Letter from Developer.

Issue	Credits	Level	Assumptions Made	Evidence Required		
Ene 7 Low or Zero Carbon Technologies	Credits are awarded where there is a 10% or 15% reduction in CO ₂ emissions resulting from the use of low or zero carbon technologies. Select % contribution made by low or zero carbon technologies _____ Less than 10% of demand ☒ OR 10% of demand or greater ☐ OR 15% of demand or greater ☐	0 of 2 Credits	-	Credit not sought as not all units will be fitted with Solar Thermal units.		
Ene 8 Cycle Storage	Credits are awarded where adequate, safe, secure and weather proof cycle storage is provided according to the Code requirements. Fill in the development details below _____ Number of bedrooms: <table border="1"><tr><td>4</td></tr></table> Number of cycles stored per dwelling* <table border="1"><tr><td>2.0</td></tr></table> * if you have storage for 1 cycle per two dwellings insert 0.5 in number of cycles stored per dwelling	4	2.0	1 of 2 Credits	-	The provision of storage facilities is assumed and confirmation is required.
4						
2.0						
Ene 9 Home Office	A credit is awarded for the provision of a home office. The location, space and services provided must meet the Code requirements. Will there be provision for a Home Office? _____ Yes ☒ OR No ☐	1 of 1 Credits	-	In order to facilitate work from home, there will be provision of appropriate space and services that enable a room to be used effectively as a home office. A home office requires adequate ventilation, a window enabling a daylight factor of at least 1.5%. Home office to include 2no. power sockets, 2no. telephone points OR one broadband connection.		

CATEGORY 2 WATER		Overall Level: 3	Overall Score	57.46	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 66.66			Credits	Level		
Contribution to Overall Score: 6.00 points			4 of 6 Credits	Level 4		
Wat 1 Indoor Water Use	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.				Code level 3 mandatory indoor water consumption must be less than 105l/person/day.	Letter from Developer.
	Select the predicted water use / Mandatory Requirement _____ greater than 120 litres/ person/ day ☐ OR ≤ less than 120 litres/ person/ day ☐ OR ≤ less than 110 litres/ person/ day ☐ OR ≤ less than 105 litres/ person/ day ☒ OR ≤ less than 90 litres/ person/ day ☐ OR ≤ less than 80 litres/ person/ day ☐	3 of 5 Credits	Level 3 AND Level 4			
Wat 2 External Water Use	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.				Outdoor space provided. On this basis, a system to collect rainwater (water butt) for irrigation use will be specified.	Letter from Developer.
	Select the scenario that applies _____ No internal or communal outdoor space ☐ OR Outdoor space with collection system ☒ OR Outdoor space without collection system ☐	1 of 1 Credits	-			

CATEGORY 3 MATERIALS		Overall Level: 3	Overall Score	57.46	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.50		Credits		Level		
Contribution to Overall Score: 6.30 points		21 of 24 Credits		All Levels	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
Mat 1 Environmental Impact of Materials	Mandatory Requirement: At least three of the five key building elements must achieve a Green Guide 2008 Rating of A+ to D. 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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Enter the predicted score _____ What is the predicted number of credits? 12	12 of 15 Credits	All Levels			
Mat 2 Responsible Sourcing of Materials - Basic Building Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 6	6 of 6 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 6 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.
Mat 3 Responsible Sourcing of Materials - Finishing Elements	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. Enter the predicted Score _____ What is the predicted number of credits? 3	3 of 3 Credits	-		In the absence of specific scheme details and/or material specifications, assumed 3 credits achievable based on previous TW schemes.	Completed Code Mat 2 Calculator tool. Detailed documentary evidence stating the materials specified in each element. Letter from the developer confirming the certified products shall be sourced from suppliers capable of providing certification to the level required for the particular tier claimed.

CATEGORY 4 SURFACE WATER RUN-OFF		Overall Level: 3	Overall Score	57.46
% of Section Credits Predicted: 75.00%		Credits	Level	
Contribution to Overall Score: 1.65 points		3 of 4 Credits	All Levels	
Sur 1 Management of Surface Water Run- off from developments	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. Mandatory Requirement _____ Will the mandatory requirement be met? ☒ Select the appropriate option _____ No SUDS ☐ No runoff into watercourses for the first 5 mm of rainfall ☐ Runoff from hard surfaces will receive an appropriate level of treatment ☒	1 of 2 Credits	All Levels	
Sur 2 Flood Risk	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. Select the annual probability of flooding (from PPS25*) _____ Zone 1 - Low ☒ OR Zone 2 - Medium ☐ OR Zone 3 - High ☐ Select the appropriate option(s) _____ Low risk of flooding from FRA** ☒ All measures of protection are demonstrated in FRA ☐ Ground floor level and access routes are 600 mm above design flood level ☐	2 of 2 Credits	-	
* Planning Policy Statement 25 - Planning and Flood Risk ** FRA - Flood Risk Assessment				

Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
SUDS or other infiltration methods have been assumed to comply with recommendations outlined within the FRA.	Flood Risk and Drainage Assessment - Wardell Armstrong.
Identified as Zone 1 through the EA Flood Map.	Flood Risk and Drainage Assessment - Wardell Armstrong.

CATEGORY 5 WASTE		Overall Level: 3	Overall Score	57.46	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 87.00%			Credits	Level		
Contribution to Overall Score: 5.60 points			7 of 8 Credits	All Levels		
Was 1 Storage of non-recyclable waste and recyclable household waste	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. <u>Tradable Credits</u> are awarded for adequate internal and/ or external recycling facilities.				Ribble Valley Borough Council operates a pre-collection sorting recycling scheme covering metal, plastics and paper. Each dwelling to be provided with a triple internal recycling bin (min capacity of 30 litres) plus standard waste bin. External storage space must meet BS5906 or be of sufficient size to hold all bins provided by the local authority.	Detailed documentary evidence stating: - The location of internal and external storage; - The number, types and sizes of internal storage. A letter, leaflet, website or other published information from the Local Authority/waste scheme provider describing: - The types of waste collected; - The frequency of collection; - If there will be pre or post collection sorting.
	Mandatory Requirement					
	Will the minimum space be provided and be accessible to disabled people? ☒					
	Internal Recyclable household waste storage					
	Where there is no external recyclable waste storage and no Local Authority collection scheme					
	Internal storage (capacity 60 litres) ☐		0 of 2 Credits			
	Local Authority collection Scheme					
	Post Collection sorting					
	Internal storage (capacity 30 litres) ☐		4 of 4 Credits	All Levels		
	Pre-collection sorting					
	Internal storage (3 separate bins, capacity 30 litres) ☒					
	External Storage, no Local Authority collection scheme					
	3 separate internal storage bins (capacity 30 litres) ☐					
	AND					
	Houses					
	External Storage(capacity 180 litres) ☐		0 of 4 Credits			
	Flats ☐					
	Private recycling operator ☐					
	3 or greater types of waste collected ☐					

Issue		Credits	Level	Assumptions Made	Evidence Required
Was 2 Construction Site Waste Management	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. SWMP details _____ Does the SWMP include: + No SWMP ☐ + SWMP with targets and procedures to minimise waste? ☐ + SWMP with procedures to divert 50% of waste ☒ + SWMP with procedures to divert 85% of waste ☐	2 of 3 Credits		SWMP is mandatory requirement for developments >£300k. It is assumed the Site Waste Management Plan will include procedures and commitments for monitoring and reducing waste generated on site in accordance with best practice and the defined waste groups.	A copy of the compliant SWMP containing the appropriate benchmarks, commitments and procedures for waste minimisation and diversion from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c OR Confirmation from the developer that the SWMP includes/will include benchmarks, procedures and commitments for minimising and diverting waste from landfill in line with the criteria and with Checklists Was 2a, Was 2b and Was 2c
Was 3 Composting	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. Select the facilities available _____ No composting facilities ☐ Individual composting facilities ☒ OR Communal/ community composting*? ☐ Local Authority ☒ OR Private with management plan ☐	1 of 1 Credit	-	Composting bin provided to each dwelling.	Letter from Developer.
* including if an automated waste collection system is in place					

CATEGORY 6 POLLUTION		Overall Level: 3	Overall Score	57.46	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 75.00%			Credits	Level		
Contribution to Overall Score: 2.10 points			3 of 4 Credits	All Levels		
Pol 1 Global Warming Potential (GWP) of Insulants	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. Select the most appropriate option _____ All insulants have a GWP less than 5 ☒ OR Some insulants have a GWP of less than 5 ☐ OR No insulants have a GWP of less than 5 ☐		1 of 1 Credits	-	Assumed that all insulants will have GWP <5.	Completed Checklist Pol 1 showing the proposed insulation materials (or none) for each element and whether they are foamed using blowing agents or unfoamed (from table Cat 6.1).
Pol 2 NOx Emissions	Credits are awarded on the basis of NOx emissions arising from the operation of the space and water heating system within the dwelling. Select the most appropriate option _____ Greater than 100 mg/kWh ☐ OR Less than 100 mg/kWh ☐ OR Less than 70 mg/kWh ☐ OR Less than 40 mg/kWh ☐ OR Class 4 boiler ☐ OR Class 5 boiler ☒ OR All space and hot water energy requirements are met by systems who do not produce NOx emissions ☐		2 of 3 Credits	-	Assumed 'Ideal Logic' boilers with Class 5 NOx emissions to be specified in each dwelling.	Letter from Developer.

CATEGORY 7 HEALTH & WELLBEING		Overall Level: 3	Overall Score	57.46	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 66.00%		Credits	Level			
Contribution to Overall Score: 9.33 points		8 of 12 Credits	No level			
Hea 1 Daylighting	Credits are awarded for ensuring key rooms in the dwelling have high daylight factors (DF) and a view of the sky.			Provisional Calculations demonstrate compliance with this issue.	Letter from Architect.	
	Select the compliant areas Room Kitchen: Avg DF of at least 2%☒ Living Room*: Avg DF of at least 1.5%☒ Dining Room*: Avg DF of at least 1.5%☒ Study*: Avg DF of at least 1.5%☒ 80% of working plane in all above rooms receive direct light from the sky?☒ Any room used for Ene 9 Home Office must also achieve a min DF of 1.5%.	3 of 3 Credits	-			
Hea 2 Sound Insulation	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.			Detached dwellings - default credit award.		
	Select a type of property Detached Property☒ Attached Properties: - Separating walls and floors only exist between non habitable spaces☐ - Separating walls and floors exist between habitable spaces☐ Select a performance standard Performance standard not sought☒ Airborne: 3db higher; Impact: 3dB lower☐ OR Airborne: 5db higher; Impact: 5dB lower☐ OR Airborne: 8db higher; Impact: 8dB lower☐	4 of 4 Credits	-			

Issue		Credits	Level	Assumptions Made	Evidence Required
Hea 3 Private Space	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. Will a private/ semi-private space be provided? _____ Yes, private/semi-private space will be provided ☒ OR No private/semi-private space ☐	1 of 1 Credits	-	Based on assumption from drawings.	Letter from Developer.
Hea 4 Lifetime Homes	<u>Mandatory Requirement:</u> Lifetime Homes is mandatory when a dwelling is to achieve Code Level 6. <u>Tradable credits:</u> Credits are awarded where the developer has implemented all of the principles of the Lifetime Homes scheme. Mandatory Requirement _____ Dwelling to achieve Code Level 6? ☐ Lifetime Homes Compliance _____ All Lifetime Homes criteria will be met ☐ OR Exemption from LTH criteria 2/3 applied ☐ Credit not sought ☒	0 of 4 Credits	No level	Credit not sought	

CATEGORY 8 MANAGEMENT		Overall Level: 3	Overall Score	57.46	Assumptions Made	Evidence Required (The below cells can be formatted by assessors if required.)
% of Section Credits Predicted: 77.00%		Credits	Level			
Contribution to Overall Score: 7.77 points		7 of 9 Credits	All Levels			
Man 1 Home User Guide	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. Tick the topics covered by the Home User Guide _____ Operational Issues? ☒ Site and Surroundings? ☒ Is available in alternative formats? ☒	3 of 3 Credits	-	Home User Guide will be provided.	Letter from Developer.	
Man 2 Considerate Constructors Scheme	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. Select the appropriate scheme and score _____ No scheme used ☒ <u>Considerate Constructors</u> OR Best Practice: Score between 24 and 31.5 ☐ OR Best Practice+: Score between 32 and 40 ☐ <u>Alternative Scheme*</u> OR Mandatory + 50% optional requirements ☐ OR Mandatory + 80% optional requirements ☐ * In the first instance, contact a Code Service Provider if you are considering to use an alternative scheme.	0 of 2 Credits	-			
Man 3 Construction Site Impacts	Credits are awarded where there is a commitment and strategy to operate site management procedures on site as following: Tick the impacts that will be addressed _____ <u>Monitor, report and set targets, where applicable, for:</u> - CO ₂ / energy use from site activities ☒ - CO ₂ / energy use from site related transport ☐ - water consumption from site activities ☒ <u>Adopt best practice policies in respect of:</u> - air (dust) pollution from site activities ☒ - water (ground and surface) pollution on site ☒ <u>80% of site timber</u> is reclaimed, re-used or responsibly sourced ☒	2 of 2 Credits	-	Monitor, report & target CO2 / Energy & water use from site activities PLUS best practice in respect of air & water pollution.	Completed copy of Checklist Man 3 (signed and dated) detailing the procedures that will be employed to minimise construction site impacts.	

Issue		Credits	Level	Assumptions Made	Evidence Required
Man 4 Security	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.			An ALO/CPDA has been consulted to ensure that requirements of Section 2 - Physical Security from 'Secured by Design - New Homes' are met.	Crime Impact Report Letter from Developer showing that recommendations have been implemented on site,
	Secured by Design Compliance Credit not sought OR Secured by Design Section 2 Compliance ☐ ☒	2 of 2 Credits	-		

CATEGORY 9 ECOLOGY		Overall Level: 3	Overall Score	57.46
% of Section Credits Predicted: 44.00%		Credits	Level	
Contribution to Overall Score: 5.33 points		4 of 9 Credits	All Levels	
Eco 1 Ecological Value of Site	One credit is awarded for developing land of inherently low value. Select the appropriate option _____ Credit not sought ☐ OR Land has ecological value ☒ OR Land has low/ insignificant ecological value* ☐ * 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.	0 of 1 Credits	-	Site assumed to be of ecological value due to presence of mature hedgerows and a water course. Ecological Appraisal - FPCR - November 2010
Eco 2 Ecological Enhancement	A credit is awarded where there is a commitment to enhance the ecological value of the development site. Tick the appropriate boxes _____ Will a <i>Suitably Qualified Ecologist</i> be appointed to recommend appropriate ecological features? ☒ AND Will all key recommendations be adopted? ☒ AND 30% of other recommendations be adopted? ☒	1 of 1 Credits	-	Trees and Hedgerows will be maintained where feasible and viable, in line with recommendations from the ecological report. Vegetation will be cleared outside of the Bird breeding season, in line with recommendations from the ecological report. Ecological Appraisal - FPCR - November 2010
Eco 3 Protection of Ecological Features	A credit is awarded where there is a commitment to maintain and adequately protect features of ecological value. Type and protection of existing features _____ Site with features of ecological value? ☐ OR Site of low ecological value (as Eco 1)? ☒ AND All* existing features potentially affected by site works are maintained and adequately protected? ☐ *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.	1 of 1 Credits	-	See above

Issue	Credits	Level	Assumptions Made	Evidence Required
Eco 4 Change of Ecological Value of Site	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 _____ Major negative change: fewer than -9 ☐ Minor negative change: between -9 and -3 ☐ OR Neutral: between -3 and +3 ☒ Minor enhancement: between +3 and +9 ☐ Major enhancement: greater than 9 ☐ 2 of 4 Credits	-	Ecological Value assumed based on Ecological Appraisal - FPCR.	Code for Sustainable Homes Ecology Report Template completed by Ecologist and written confirmation from the developer that recommendations have been implemented.
Eco 5 Building Footprint	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 _____ Credit Not Sought ☒ OR Houses: 2.5:1 OR Flats: 3:1 ☐ OR Houses: 3:1 OR Flats: 4:1 ☐ OR Houses & Flats Weighted (2.5:1 & 3:1) ☐ OR Houses & Flats Weighted (3:1 & 4:1) ☐ 0 of 2 Credits			