

BELLWAY HOMES

HALL ROAD, ROCHFORD

**SUSTAINABILITY
STATEMENT**

APRIL 2010

REF: 2010-021

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AUTHORISED FOR AND ON BEHALF NJL CONSULTING LLP



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EXECUTIVE SUMMARY

This document presents the Sustainability Statement to accompany the outline application for the residential development at Hall Road, Rochford.

- The development is proposed to meet immediate housing needs of Rochford District. It is a residential led scheme which will deliver open market and affordable housing and a Primary School with landscaping and infrastructure.
- The site has been identified as a suitable location for new housing development in the Rochford Core Strategy (Policy H2 – Extensions to residential envelopes and phasing). The sustainability credentials of the site and the proposed development are demonstrated through this Sustainability Statement.
- This Sustainability Statement has followed the emerging BREEAM Communities Guidance with reference to the East of England Regional Sustainability Checklist. The strategy has been devised around a series of commitments and targets, together with identification of future opportunities for reserved matters applications.
- **Climate Change and Energy** – the majority of the site is not located within an area at risk from flooding, the drainage strategy for the site will incorporate sustainable drainage systems, together with the opportunity for rainwater harvesting and recycling. Public spaces and landscape planting will provide shade and cooling. Buildings will be designed with high energy efficiency and may incorporate low or zero carbon energy technologies as appropriate.
- **Community** – consultation will be held with the local community and stakeholders to allow them to provide views on the development and adapt the proposals. Community outdoor spaces and opportunity for recreation and interaction are to be provided.
- **Place Shaping** – the site is adjacent to an existing urban area and will deliver a range of affordable housing to meet current and predicted future housing need in accordance with the principles set down in the Design and Access Statement. It will also deliver high quality public open space whilst providing landscaping that is sympathetic to the adjacent countryside.
- **Ecology and Biodiversity** – an Ecological Assessment has been undertaken that includes an Extended Phase 1 Habitat Survey. Further detailed surveys, where necessary, will be carried out during the determination period.
- **Transport and Movement** – the development is adjacent to existing amenities, footpaths, cycleways and bus routes. As part of the proposals there will be an extension to the existing footpath on Hall Road to provide pedestrian access between the site and Rochford.

- **Resources** – optimised use of construction materials achieving a BRE Green Guide D or above rating and where possible, local materials and reclaimed materials will be sourced and used in construction. Site Waste Management Plan will be implemented on the site to reduce the amount of waste that is sent to landfill and increase the potential for recycling of materials. Each dwelling will have adequate space to incorporate a home composting system along with the provision of waste storage system to facilitate segregation and storage of waste streams.
- **Business** – the development will deliver short term construction employment opportunities together with longer term employment opportunities in the Primary School. The new residents will also support local shops and services in Rochford.
- **Buildings** – all private dwellings will meet the prevailing Building Regulations requiring increasingly tight energy efficiency standards. The affordable housing will be built to the appropriate Code for Sustainable Homes mandatory performance standard required by the HCA for grant funded housing.

1 INTRODUCTION

1.1 PURPOSE OF THIS DOCUMENT

Bellway Homes is applying to Rochford District Council for outline planning permission for a residential led development of up to 600 new homes at Hall Road, Rochford.

The application comprises the following key elements:

- Up to 600 residential units;
- A new primary school;
- Landscape enhancement;
- Sustainable Drainage Systems; and
- Improvements to the existing footpath into Rochford.

This Sustainability Statement has been prepared to accompany the planning application and should be read in conjunction with the following application documents:

- Planning Statement (PS) and Application Pack including Parameters Plan, Red Line Plan and Illustrative Masterplan;
- Design and Access Statement (DAS);
- Flood Risk Assessment (FRA);
- Transport Assessment (TA); and
- Energy Statement.

1.2 STRUCTURE OF THIS SUSTAINABILITY STATEMENT

This statement aims to set a site specific approach to Sustainable Development and provide a framework of Commitments and Opportunities for the proposals. The Commitments are what will be delivered as part of the outline application and the Opportunities include the potential commitments to be considered during the detailed design of subsequent Reserved Matters applications.

The statement covers the following key topics and has been based on the standard approach adopted in the East of England Regional Sustainability Checklist, which provides a more comprehensive list of measures than required by the Rochford Local Plan.

The emerging guidance for BREEAM Communities has also been used, which adopts the same categories and objectives as the Sustainability Checklist, the majority of which are based upon adopted Planning Policy Statements (PPS) or Guidance (PPG).

- **Climate Change**
- **Resources**
- **Transport**
- **Ecology**
- **Business**

- **Community**
- **Place Shaping**
- **Buildings**

Each section includes an introduction to the topic followed by a table that includes:

- The Commitment of the development;
- How the Commitment will be delivered;
- Evidence for the Commitment;
- Opportunity for further improvements.

1.3 BACKGROUND AND POLICY CONTEXT

PPS1 – Delivering Sustainable Developments (2005)

PPS1 sets out the overarching principles of the delivery for sustainable development through the planning system: “*Sustainable development is the core principle underpinning planning*”. The statement provides a framework for the achievement of Government’s objectives for sustainable development, which were set out in *A Better Quality of Life – A Strategy for Sustainable Development* (1999) and updated by the UK Sustainable Development Strategy (2005), these are:

- Living within environmental limits;
- Ensuring a strong, healthy and just society;
- Achieving a sustainable economy;
- Promoting good governance; and
- Using sound science responsibly.

Supplement to PPS1 – Planning and Climate Change (2007)

The Supplement to PPS1 (sPPS1) sets out how planning should contribute to reducing greenhouse gas emissions, stabilising climate change and adapting to its foreseeable effects. The document sets a series of objectives covering general, social, environmental and economic objectives for the delivery of sustainable development. For considering individual planning applications, paragraph 42 of the sPPS1 states that planning authorities should expect new development to adhere to the following principles.

- Compliance with Development Plan Document (DPD) policies on local requirements for decentralised energy supply and sustainable buildings.
- Take account of landform, layout, orientation, massing and landscaping to minimise energy consumption.
- Consider how all aspects of the development, together with the proposed density and mix of development, support opportunities for decentralised and renewable or low carbon energy supply.

- Deliver a high quality local environment.
- Provide public and private open space so that it offers accessible choice of shade, shelter and recognises opportunities for flood storage, wildlife and people.
- Give priority to the use of sustainable drainage systems and consider the contribution to be gained from water harvesting from impermeable surfaces and encourage layouts that accommodate waste water recycling.
- Provide for sustainable waste management.
- Create and secure opportunities for sustainable transport in line with PPG13, including, travel plans, safe and attractive walking and cycling opportunities and an appropriate approach to the provision and management of car parking.

Paragraph 40 of sPPS1 also identifies that applications for planning permission to develop a proposal that will '*contribute to the delivery of the Key Planning Objectives set out in the PPS should expect expeditious and sympathetic handling of the planning application*'.

Regional Spatial Strategy for the East of England (RSS)

The Regional Spatial Strategy (RSS) for the East of England (East of England Plan) was published in May 2008. This provides a planning strategy to promote the creation and development of sustainable communities across the region in the next 15 to 20 years. It identifies the scale and distribution of new housing in the region, indicates areas for regeneration, expansion or sub-regional planning and specifies priorities for the environment, transport, infrastructure, economic development, agriculture, minerals and waste treatment and disposal.

The Plan seeks to bring about Sustainable Development by applying the guiding principles of the UK Sustainable Development Strategy (2005) and the elements that contribute to the creation of sustainable communities:

- Active, inclusive and safe in terms of community identity and cohesion, social inclusion and leisure.
- Well run in terms of effective participation, representation and leadership.
- Environmentally sensitive.
- Well designed and built.
- Well connected in terms of good transport services.
- Thriving in terms of a flourishing and diverse economy.
- Well served in terms of public, private, community and voluntary services.
- Fair for everyone.

Rochford Local Plan

The Rochford Local Plan contains the following relevant saved policies:

HP7 – Energy and Water Conservation

The Local Planning Authority will require developers to provide a statement of the measures that are to be taken to ensure the construction of environmentally efficient buildings and the use of energy efficient heating, lighting and other powered systems, reducing the need to travel and encouraging the use of energy efficient transport and ensuring water conservation.

CS10 – Energy and Water Consumption

It is the Council's aim to reduce energy and water consumption by:

- a. promoting the development of environmentally efficient buildings and the use of energy efficient heating, lighting, cooling, ventilation and other powered systems;
- b. reducing the need to travel and encouraging the use of energy efficient transport; and
- c. promoting water conservation measures.

2 CLIMATE CHANGE

2.1 INTRODUCTION

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 reduce the effects on flooding, heat gain, water resources and water quality.

Climate change is expected to lead to hotter and drier summers with milder and wetter winters which should influence the way in which new development is planned and designed. Reducing carbon emissions and managing water resources are therefore key priorities for new developments. This section addresses the approach taken with regard to:

- Flood Risk;
- Surface water run off;
- Water consumption;
- Heat island (heat gain) effects; and
- Energy efficiency and low or zero carbon technology.

2.2 FLOOD RISK ON-SITE

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. Ensuring that new development is protected from flood risk as there are a number of nearby watercourses and drainage ditches.

Commitment of the development	<p>The majority of the proposed development is located within Flood Zone 1 (low probability) with an area in the north west corner of the site in Flood Zone 2 (medium probability). A very small area in the north west corner is located in Flood Zone 3 (high probability).</p> <p>New housing is located in accordance with the sequential approach set out in PPS 25, with no dwellings built within Flood Zones 2 and 3. All uses within Flood Zones 2 and 3 will be appropriate for the associated flood risk zone.</p>
How this will be delivered	Site location and Parameters Plan.
Evidence	Refer to Flood Risk Assessment.
Opportunity for further improvements	Not applicable – no flood mitigation is required.

2.3 SURFACE WATER RUN OFF

Urbanisation and new development in a river catchment area can increase surface water run-off due to the accelerated run-off associated with hard paved areas. This can contribute to flash flooding and a resulting increase in flood risk downstream. To mitigate against this, it is important that the drainage provision does not increase run-off and is comparable to pre-development conditions.

Commitment of the development	Run-off from the site will be restricted to greenfield run-off rates. Due to the poor permeability of the site, surface (as opposed to infiltration) SuDS solutions will be used such as swales, ditches and attenuation ponds/basins prior to discharging into the existing watercourses at controlled discharge rates.
How this will be delivered	The drainage strategy, within the FRA. SuDS features are incorporated as part of the Parameters Plan.
Evidence	Refer to Flood Risk Assessment and also the DAS.
Opportunity for further improvements	The detailed design of the SuDS features should have regard to ongoing maintenance and to ensure that there is no risk of inundation due to trapped debris. Rainwater recycling facilities could be incorporated on residential and non-residential buildings. Other features such as permeable paving could also be used where ground conditions are locally suitable.

2.4 HEAT ISLAND

Urban areas are effectively a concentration of heat, a further anticipated effect of climate change is increasing summer temperatures and consequently a rise in the heat island effect. Developments can help reduce heat absorption through design and landscaping thereby reducing the incidence of over-heating and need for powered cooling.

Commitment of the development	The development will provide shaded footpaths and new public open space that will include structure planting aimed at providing suitable shaded areas.
How this will be delivered	Open space provision as part of the Parameters Plan.
Evidence	DAS and the Landscape and Biodiversity Management Plan.
Opportunity for further improvements	Buildings could be designed to enable air flow through the development, with appropriate choice of external finish to limit heat absorption and over heating. The layout could aim to enable air flow through the buildings, providing natural cooling and reducing the requirement for air conditioning systems.

2.5 ENERGY EFFICIENCY AND LOW OR ZERO CARBON TECHNOLOGY

Improving energy efficiency is the key principle that underpins the Communities and Local Government (CLG) consultation on the definition of zero carbon homes and non domestic buildings¹. High energy efficiency standards are, therefore, the first stage to secure significant energy and carbon savings over the lifetime of the building. Further to this, residual energy demands should be met by means of a low or zero carbon energy supply

Rochford Council Replacement Local Plan Policy HP7, Energy & Water conservation requires developers to demonstrate the measures that are to be taken to ensure the construction of environmentally efficient buildings and the use of energy efficient heating, lighting and other powered systems.

Due to the scale of the proposed development, construction will be delivered through a number of phases which Bellway Homes anticipate to continue for at least four years. In order to conform to the proposed regulatory updates within Building Regulation Part L, Conservation of Fuel and Power scheduled for October 2010 and 2013, such a schedule will dictate improvements to the material specifications and energy performance of the dwellings. This requirement will lead to provision of dwellings at the Hall Road site which are of inherently low energy design and, in part, are likely to require integration of low and zero carbon technologies in order to meet the reduced dwelling emission rates of upcoming regulation amendments.

In addition to the regulatory drivers, it is understood that approximately 35% of the site is to be assigned as affordable housing. Where grant funding is sought for this housing there is typically a requirement for the units to achieve Code for Sustainable Homes (Code) energy rating performance beyond prevailing Building Regulations criteria. This will result in the provision of highly energy efficient dwellings and an overall minimum carbon energy reduction of 15%, which is beyond Government recommendations.

PPS22 Planning and Renewable Energy advises Regional and Local Authorities to encourage the development of renewable energies to help put the UK on a path to cut its carbon dioxide emissions. The document also recognises the value of small-scale and decentralised energy systems. It states that Local Planning Authorities:

“Should ensure that the requirement to generate on-site renewable energy is only applied to developments where the installation of renewable energy generation equipment is viable given the type of development proposed, its location and design” (para 8(i)).

The East of England RSS recommends that new development should secure at least 10% of their energy from decentralised, renewable or low carbon sources, unless it is not feasible or viable. The project team have been liaising with utility companies on possible site-wide solutions and also renewable energy technology providers about small-scale / micro low carbon systems.

¹ Communities and Local Government (2008) *Definition of Zero Carbon Homes and Non Domestic Buildings – Consultation*

Commitment of the development	<p>Energy efficient specifications will be proposed in accordance with the prevailing Building Regulations and proposed amendments to Part L – Conservation of Fuel and Power. A site specific energy strategy will be developed for submission of the first Reserved Matters application. This will be undertaken by an independent energy specialist and focus on:</p> <ul style="list-style-type: none"> • Meeting Building Regulation requirements and/or mandatory energy requirements of the Code as they increase efficiency standards in new buildings. • Open market housing to be aligned with current Code 3 mandatory energy criteria. • Social housing (~35%) to be aligned with current Code 4 mandatory energy criteria. • Minimising energy demand through orientation and passive solar design. • Material specifications designed to maximise thermal efficiency of building envelopes through the use of: thermal efficiency, high levels of insulation, improved air tightness and avoidance of cold bridging. • Minimising demand for water and space heating, cooling, lighting and power. • Identifying appropriate low and zero carbon energy technologies able to meet a proportion of the site’s energy demand - 10% energy from decentralised, renewable or low carbon sources, unless it is not feasible or viable.
How this will be delivered	<p>Low energy material & build specifications and plant, efficient site orientation plus low/zero carbon (LZC) technologies (such as Photovoltaic cells, solar thermal water heaters or air source heat pumps as appropriate dependent upon the specific site scenario).</p>
Evidence	<p>Not applicable at this stage.</p>
Opportunity for further improvements	<p>Where HCA funding is required for social housing provision, the requisite level of the Code for Sustainable Homes will be achieved, beyond regulatory compliance.</p> <p>Where appropriate, consideration will be given to climate change mitigation and adaption requirements to facilitate future integration of LZC technologies or energy efficiency, metering and control measures.</p>

2.6 WATER CONSUMPTION

The demand for clean, fresh potable water increases with new development and population. 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.

Rochford Council Replacement Local Plan Policy HP7, Energy & Water conservation requires developers to ensure water conservation.

Commitment of the development	<p>A capacity assessment has been undertaken by Essex and Suffolk Water and confirmed that there is sufficient spare capacity to serve the proposed development, without requiring off-site reinforcement works to be undertaken.</p> <p>Water efficiency measures will be proposed in accordance with the prevailing building regulations and recent amendments to Part G, Sanitation, hot water safety and water efficiency – water consumption to be less than 125 litres/person/day or alternatively, for grant funded affordable housing, the requisite mandatory Code water consumption target.</p> <p>For those affordable units required to achieve mandatory water consumption targets within the Code Level 3 or 4 assessments, water demand will be reduced to less than 105l./person/day.</p>
How this will be delivered	<p>Water efficient fixtures and fittings such as low flow taps, aerators, dual flush toilets, reduced volume baths and low flow showers. All new build dwellings are required to demonstrate estimated water consumption using the newly devised Part G water consumption calculator toolkit, provided by CLG.</p>
Evidence	<p>Not applicable at this stage.</p>
Opportunity for further improvements	<p>Opportunity for rain and grey water recycling to be incorporated on WCs, hand basins and washing machines where deemed to be necessary and technically/commercially viable.</p> <p>For the affordable housing units, inclusion of water metering systems to facilitate targeting and monitoring of household consumption.</p>

3 COMMUNITY

3.1 INTRODUCTION

The proposed development should integrate with surrounding communities and seek to create a vibrant and diverse community which includes suitable places for meeting and socialising. It should also respond to the needs of all members of the community including people with young families, older children, professionals and elderly people and keep existing and future residents informed. This section addresses the approach taken with regard to:

- Community consultation; and
- Operational management and information.

3.2 COMMUNITY CONSULTATION

Involving the local community and enabling them to influence a new development is important as future residents may well move in from the immediate local area and the local community.

Commitment of the development	Exhibitions during the planning application determination period will provide the opportunity to engage with the local community and stakeholders.
How this will be delivered	As part of the community consultation strategy for the scheme.
Evidence	Planning Statement.
Opportunity for further improvements	Ongoing community consultation and engagement will continue as part of the design process of future Reserved Matters applications.

3.3 OPERATIONAL MANAGEMENT AND INFORMATION

Through the process of construction and once the development is completed, new residents and the existing local community should be encouraged to lead sustainable lifestyles and to integrate.

Commitment of the development	<p>The development will provide community spaces for use by residents.</p> <p>All home owners will be provided with a non-technical Home User manual.</p>
How this will be delivered	<p>Illustrative Masterplan.</p> <p>Building Regulations.</p>
Evidence	<p>Description of the development is presented in the Planning Statement.</p>
Opportunity for further improvements	<p>There will be the opportunity to engage with the local community through public consultation to establish the exact nature and type of the community spaces and facilities to be provided.</p> <p>A resident's information pack containing information on the development and the surrounding area could be provided. This would include information on local transport services, local events and destinations.</p>

4 PLACE SHAPING

4.1 INTRODUCTION

Place shaping is the art of transforming locations and buildings into places where people live, rather than just work or sleep. It needs to ensure that developments are well-designed, built efficiently and deliver the type and tenure of housing that people need.

Public spaces and neighbourhoods should provide lively and attractive locations for people to interact, they should be safe, secure and accessible. Buildings should reflect the character of the area in which the development is situated and provide a sense of identity which makes people want to spend time in the location. This section addresses the approach taken with regard to:

- Effective use of land and meeting housing needs;
- Landscaping and green infrastructure;
- Design and Access; and
- Open spaces.

4.2 EFFECTIVE USE OF LAND AND MEETING HOUSING NEEDS

New development should make effective use of existing land and serve to meet the current and future needs of the local community. The re-use of brownfield land and vacant / derelict land in urban areas is an effective use of land, however, this is not always suitable, sustainable or deliverable.

Commitment of the development	<p>The development is on greenfield land, however this is immediately adjacent to an existing urban area and would provide an extension to the town of Rochford.</p> <p>The Rochford District Council Local Development Framework² recognises the need for additional housing in the District, in line with the adopted East of England Plan and has allocated the site.</p>
How this will be delivered	<p>The nature and scale of the development is led by the need to meet existing and future housing needs in terms of housing numbers, types, sizes and tenures.</p> <p>The development will provide up to 35% affordable housing.</p>
Evidence	<p>Housing needs analysis presented as part of the Planning Statement, affordable housing provision is also identified.</p>
Opportunity for further improvements	<p>As reserved matters come forward, the type, size and tenure of housing can be reviewed and adapted as necessary.</p>

² Rochford District Council (2009) *Local Development Framework Core Strategy Submission*

4.3 LANDSCAPING AND GREEN INFRASTRUCTURE

Green Infrastructure is a term used to address access and opportunity for people and for wildlife to benefit from green open spaces, and importantly to provide a network of connected green corridors and spaces. It forms an important part of the landscape and contributes to the recognition of places and their identity.

Commitment of the development	Landscape zones have been designed to encourage recreational use by the residents as well as screening the development from the adjacent countryside and Hall Road.
How this will be delivered	Parameters plan, DAS, Illustrative Masterplan and the Landscape and Biodiversity Management Plan.
Evidence	DAS, Illustrative Masterplan and the Landscape and Biodiversity Management Plan.
Opportunity for further improvements	Further detailed landscape proposals will be developed at the Reserved Matters stage.

4.4 DESIGN AND ACCESS

Design and Access Statements (DAS) are important documents to set out the design context and approach to the Design Principles of the development together with the access arrangement for the scheme.

Commitment of the development	A Design and Access Statement has been prepared based on the appraisal of the site and its surroundings. This establishes the principles that have influenced site design and to be taken forward to the Reserved Matters stage.
How this will be delivered	The Parameters Plan forms the basis of both design and access with an Illustrative Masterplan demonstrating how this could be delivered.
Evidence	Parameter Plan and DAS.
Opportunity for further improvements	Architectural design and aesthetic quality of the development to be developed through reserved matters applications with clear consideration of the following: <ul style="list-style-type: none"> • Incorporation of Secured by Design principles. • Ensure streets are designed with active frontages which promote and support pedestrian usage. • Create defensible spaces that clearly define public and private spaces.

4.5 OPEN SPACES

Functional open spaces contribute to a range of sustainability objectives including ecological function, reducing urban heat island effects, flood storage and healthy lifestyles. It is important to ensure that the local community has access to high quality public open spaces which include formal and informal spaces, play areas and recreational space.

Commitment of the development	Open space for active recreation to be included in the landscape zones at the west of the site. Play areas will be included within the residential areas of the site.
How this will be delivered	Parameters Plan and Illustrative Masterplan.
Evidence	Refer to Planning Statement, DAS and supporting parameters plan.
Opportunity for further improvements	There is opportunity to incorporate Health Routes as part of integrated footpath / cycle ways / green corridors at the Reserved Matters stage.

5 ECOLOGY AND BIODIVERSITY

5.1 INTRODUCTION

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.

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. This section addresses the approach taken with regard to:

- Ecological surveys and protection; and
- Ecological enhancement.

5.2 ECOLOGICAL SURVEYS AND PROTECTION

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.

An ecological assessment of the site has been undertaken by a fully qualified Ecologist. An Extended Phase 1 Habitat Survey was carried out which included an appraisal for the following protected species:

- Bats;
- Badgers;
- Dormice;
- Otters;
- Reptiles; and
- Water Voles.

The ecological assessment identified that the site supports two badger setts, one of which was seen to be active. A number of buildings and trees were noted as having potential for roosting bats and there are a number of ponds on site or in the vicinity that need to be surveyed for Great Crested Newts. There is also suitable habitat for reptiles within the tall ruderal / scrub and surveys will be required to establish presence or absence.

There was no evidence of Dormice or any notable, scarce or protected bird species on site. It is also deemed that the site contains no other suitable habitats for other protected species.

Commitment of the development	Retention of existing known badger setts.
How this will be delivered	Ecological Assessment, Illustrative Masterplan.
Evidence	Ecological Assessment
Opportunity for further improvements	Detailed species surveys will be undertaken during the determination period and at the future Reserved Matters stage. The results of the surveys will be used to inform the detailed site design. Bird and bat boxes could be provided on site.

6 TRANSPORT AND MOVEMENT

6.1 INTRODUCTION

Development should be planned to ensure that residents can reach facilities they need by appropriate transport modes, by encouraging walking and public transport use and reducing the use of private cars for shorter journeys. The first principle is to reduce the need to travel and ensuring that there are facilities close to where people live and work.

Following this, public transport should be easily accessible and serve key destinations encouraging a shift away from car use. The dominance of cars on-street and within developments should be reduced so that people feel safer when walking or cycling. This section addresses the approach taken with regard to:

- Public transport;
- Accessibility of local amenities;
- Cycling; and
- Car parking and private vehicles.

6.2 PUBLIC TRANSPORT

Availability and accessibility of public transport is important to encourage people out of private cars and onto alternative, sustainable modes of transport. This contributes to reducing carbon emissions, improving health and fitness and community integration.

The nearest bus stops are located on West Street, approximately 400m to the east of the site, with further stops on Southend Road, approximately 950m from the site. There are several routes providing services at frequent intervals to nearby towns such as Rayleigh, Hockley, Ashington, Southend and North Shoebury.

Rochford Station is located approximately 400m to the east of the site providing frequent services to London and Southend.

Commitment of the development	Residents will be encouraged to use public transport rather than private vehicles and Travel Packs will be issued to each household on first occupation by the site sales office. These will contain details of local cycle routes and locations of bus stops within walking distance of the site together with timetables for routes serving them and of trains from Rochford station.
How this will be delivered	Condition of Planning Consent.
Evidence	Chapter 3 of the Transport Assessment.
Opportunity for further improvements	Not applicable at this stage.

6.3 ACCESSIBILITY OF LOCAL AMENITIES

A key objective of PPG 13 is to promote accessibility and to ensure that residents have access to suitable, safe footpaths and cycle ways that either connect directly to destination hubs (for example local centres or schools) or directly to public transport networks for onward travel. It is also important to ensure that these are suitable for use by all including parents with push chairs, younger children and the elderly or mobility impaired.

The site is currently well served by existing footpaths and cycleways that connect the site to the existing local facilities of Rochford, approximately a 10 minute walk from the site.

Commitment of the development	<p>The proposed development will improve the provision of local facilities through the construction of a new 210-pupil Primary School.</p> <p>Pedestrian access to and from the site be improved through the extension of the existing footpath at the north side of Hall Road along the whole length of the site.</p> <p>The internal layout will include additional safe cycle and pedestrian links to provide further connections with Hall Road and Ironwell lane.</p>
How this will be delivered	Parameters Plan and Illustrative Masterplan.
Evidence	Masterplan and Parameter Plan showing land use and main access routes and Chapter 3 of the Transport Assessment.
Opportunity for further improvements	Not applicable at this stage.

6.4 CYCLING

Encouraging sustainable modes of travel such as walking and cycling delivers multiple benefits in terms of reducing carbon emissions and also improving general health and fitness. The provision of cycling facilities and ensuring that roads are safe to use means that cycling is a real alternative to the use of private cars for shorter journeys.

There is currently a shared foot/cycleway along Hall Road, linking the site with the centre of Rochford. Rochford District Council are also proposing a new cycle route under the emerging Core Strategy to link Rochford with Hawkwell, Hockley and Hullbridge, which will run along Ironwell Lane.

Commitment of the development	Parking for pedal cycles will be provided for dwellings without garages in accordance with the minimum requirements set out in the consultation draft ECC standards ¹ . Dwellings with garages will provide appropriate space for cycle storage.
How this will be delivered	As part of future Reserved Matters applications.
Evidence	Chapter 3 of the Transport Assessment.
Opportunity for further improvements	At the detailed design stage, specifications for cycle storage facilities will ensure these are suitably specified and located, particularly at the primary school.

6.5 CAR PARKING AND PRIVATE VEHICLES

The over-arching aim of PPG 13 and the Supplement to PPS 1 is to reduce the need to travel by private car thereby reducing carbon emissions and other associated traffic impacts such as congestion, noise and air pollutants.

The development cannot directly reduce vehicle trips that are made for personal reasons, however, it can ensure that for trips which have to be made, for example to employment or for schools, that these are accessible by means other than private car. It can also take measures to reduce the effect of cars on the development.

A Transport Assessment has been prepared and submitted with the application in line with appropriate guidance. This assesses the effect of new trips associated with the development and the impact on the local highways network.

Commitment of the development	Car parking for private residences will be provided in line with local car parking standards and incorporated as both on and off street parking.
How this will be delivered	Detailed design of streets and private / public car parking areas will be developed through reserved matters application.
Evidence	Refer to TA and DAS.
Opportunity for further improvements	Car clubs could be set up and encouraged. Traffic calming measures. A Travel Plan could be delivered as part of future reserved matters applications.

¹ ECC/EPOA (March 2009) *Parking Standards Design and Good Practice* (Consultation Draft)

7 RESOURCES

7.1 INTRODUCTION

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.

The availability and quality of water resources is a key issue faced by the East of England. Water resource availability is limited and there are already supply-demand issues in part of the Region. It is therefore important to ensure that new development does not harm or compromise the quantity or quality of water resources. This section addresses the approach taken with regard to:

- Low impact and locally sourced materials.
- Waste and Composting;
- Water resources; and
- Water quality and ground water resources.

7.2 LOW IMPACT AND LOCALLY SOURCED MATERIALS

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.

Commitment of the development	The developer and its contractors will commit to optimising the use of construction materials that are awarded at least a Green Guide D rating or above. Where possible, local materials and reclaimed materials will be sourced and used in construction.
How this will be delivered	For each Reserved Matters application, further details will be produced to confirm proposed construction specification.
Evidence	Not applicable at this stage.
Opportunity for further improvements	At the Reserved Matters stage, where feasible and viable there is opportunity for a greater percentage of the construction materials to achieve at least a B rating or above in the Green Guide. Where material is required for land raising or levelling, road construction, public realm and other features, the first principle will be to source this as local to the development as possible. When sourcing materials for basic build and finishing elements these should be

	from companies operating an accredited environmental management system and / or provide certification details for responsibly sourced timber.
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7.3 WASTE AND COMPOSTING

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.

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.

Commitment of the development	<p>Dwellings will be equipped with the provision of waste storage system to facilitate segregation and storage of waste streams.</p> <p>Residential properties will have adequate space to incorporate a home composting system.</p> <p>A site waste management plan (SWMP) will be implemented on site.</p>
How this will be delivered	<p>At the Reserved Matters stage, units will incorporate sufficient space and access for home composting or a Local Authority collection scheme for composting and/or recycle.</p> <p>A SWMP 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 as per the regulatory requirements.</p>
Evidence	Refer to DAS.
Opportunity for further improvements	Community composting facilities could be provided in communal or public landscaping areas.

7.4 WATER RESOURCES

With new development comes an increased demand on fresh potable water supplies, in areas of water stress, the capacity of the current water supply can be a limiting constraint to new development.

Commitment of the development	<p>Consultation has been undertaken with the Three Valleys Water Company which confirms that there is sufficient capacity to support the development.</p> <p>Water demand on site will be minimised through the incorporation of water efficient fixtures and fittings.</p>
How this will be delivered	Water efficient fittings to be specified at the Reserved Matters stage.
Evidence	Not applicable at this stage.
Opportunity for further improvements	Opportunity to incorporate rain or grey water recycling features on some dwellings or non-residential buildings at the Reserved Matters Stage.

7.5 WATER QUALITY AND GROUND WATER RESOURCES

During construction and completion of the development, there is the potential for pollution and materials to enter surface and ground water resources. This includes materials such as silt, petrol, chemical and oils. Agreements and appropriate arrangement should also be made with the local sewerage undertaker to ensure that foul and storm drainage water can be received and treated.

Commitment of the development	<p>The site does not form part of a ground water Source Protection Zone.</p> <p>Measures to protect water resources during construction are set out in the Planning Statement. No significant sources of current or historical contamination have been identified.</p> <p>Anglian Water have confirmed that the Rochford Sewage Treatment Works presently has capacity available to accommodate the foul water flows from the proposed development.</p> <p>Anglian Water have advised that there is insufficient capacity within the foul water public sewer network to accommodate the development. Off site reinforcement works are envisaged and Anglian Water have been commissioned to undertake a foul water capacity appraisal.</p>
How this will be delivered	Detailed site drainage plans will be brought forward as part of future reserved matters applications.
Evidence	Refer to the Flood Risk Assessment and the Planning Statement.
Opportunity for further improvements	Where appropriate, for example car parking areas, oil separators could be provided at the Reserved Matters stage.

8 BUSINESS

8.1 INTRODUCTION

Economic wellbeing is one of the key principles of sustainable development and the overall aim is to develop and sustain a vibrant and diverse economy and to meet the local employment and service needs of both urban and rural areas.

The proposed development is residential led, which can stimulate and attract employment and investment. It is also important to ensure that there is a supply of housing to attract major employers to the area. This section addresses the approach taken with regard to:

- Employment, labour and skills; and
- New business investment.

8.2 EMPLOYMENT, LABOUR AND SKILLS

Providing employment opportunities and supporting skills development to grow the local economy will deliver benefits that are experienced outside of the local area to a regional level.

Commitment of the development	The development is residential led but will provide some employment through the provision of a new primary school. Jobs, employment and the local economy will be supported throughout the construction phase.
How this will be delivered	Delivered through the master plan and proposed development quantum.
Evidence	Refer to Planning Statement.
Opportunity for further improvements	There is opportunity to develop a local labour and training skills programme during construction to encourage use of local labour, skills and apprenticeships. The future community will also support local shops and businesses.

9 BUILDINGS

9.1 INTRODUCTION

The Code for Sustainable Homes and BREEAM for non-residential buildings (BREEAM) are voluntary assessment tools for establishing the overall sustainability performance of new 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.

9.2 SUSTAINABILITY PERFORMANCE

The sustainability features of the wider development are discussed in preceding sections. The design and approach to the whole development can be further enhanced through improving the sustainability performance of buildings.

As stated, 35% of the dwellings will be designated as affordable housing. There is a requirement by the HCA for grant funded affordable housing to meet mandatory performance standards of the Code for Sustainable Homes. This considers a more holistic approach, beyond regulatory control, to the provision sustainable dwellings by reducing the wider environmental impact of the building during construction and operation.

Commitment of the development	<p>All buildings will meet the prevailing Building Regulations which are proposed to be updated in October 2010 to provide a 25% improvement in dwelling emission rates. The energy efficiency rating, sourced from the Energy Performance Certificate (EPC), of new buildings will be B or above.</p> <p>All grant funded affordable housing units will be designed with regard to the mandatory performance standards of the Code for Sustainable Homes as determined by the HCA. The broader scope of 'sustainable dwellings' concept will be demonstrated by achieving various levels of the Code as required.</p>
How this will be delivered	<p>All dwellings are required to obtain Building Regulations consent prior to occupation which necessitates the provision of Standard Assessment Procedure (SAP) calculations to demonstrate compliance with the prevailing building regulations.</p> <p>Additionally, all dwellings in the UK require an EPC for sale/let.</p> <p>Where appropriate, Code assessments will be undertaken to demonstrate that the affordable dwellings achieve the requisite rating.</p>
Evidence	Not applicable at this stage.

Opportunity for further improvements	Opportunity for residential buildings to meet Code levels 3 or above at Reserved Matters. Opportunity for the primary school at the site to be assessed under BREEAM Education methodology and achieve 'Very Good' rating.
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