

Gartree 2

Energy and Sustainability

Statement

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1 Executive Summary

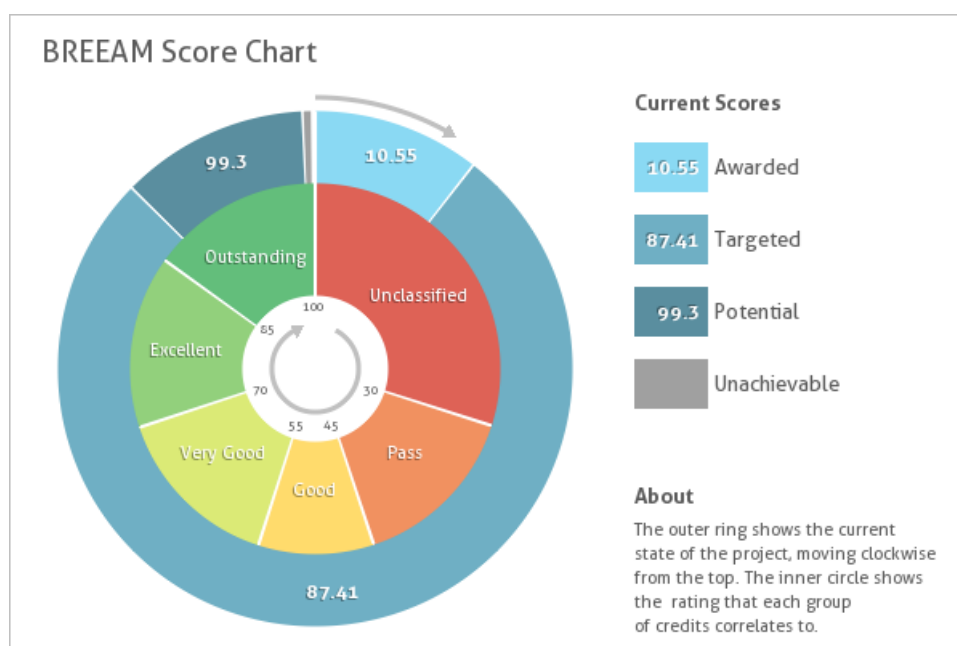
The purpose of this Energy and Sustainability Statement is to demonstrate that the proposed new prison development at Gartree 2 is considered sustainable, as measured against relevant local and national planning policy.

The new Category B prison, located adjacent to HMP Gartree in Leicestershire, will comprise the following:

- Seven new houseblocks each accommodating up to 245 prisoners (1,715 prisoners in total), totalling c.53,122 sqm GEA;
- Supporting development including kitchen, workshops, kennels, Entrance Resource Hub, Central Services Hub and support buildings, totalling c. 29,433 sqm GEA; and
- Ancillary development including car parking (c. 523 spaces), internal road layout and perimeter fencing totalling 1463 linear meters enclosing a secure perimeter area of 11.69 ha

The Ministry of Justice (MoJ) is investing heavily in the sustainability of its New Prisons Programme and has developed its own sustainability plan. The MoJ's commitment to sustainability covers several key targets for all new prisons which exceed local and national planning policy requirements. Amongst others, these aspirations include targeting near zero carbon operations, at least 10% Biodiversity Net Gain, and at least BREEAM 'Excellent' certification, with endeavours to achieving BREEAM 'Outstanding'.

The new prison has been registered and will be assessed against the latest BREEAM 2018 New Construction scheme, under the 'prison' assessment category. A BREEAM Pre-Assessment Report has been prepared and is included in **Appendix A** of this statement. This outlines a possible route to achieving a BREEAM 'Outstanding' score of 85% however the exact route to certification may vary as the detailed design progresses. The figure below provides a high-level visual summary of the targeted score, but more detail is provided in the BREEAM Pre-assessment Report.



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In addition to BREEAM certification, the key features of the energy and sustainability strategy are outlined as follows:

- **Biodiversity and Ecology:** Existing ecology will be protected where possible and ecological enhancements will be implemented to achieve 26.29% Biodiversity Net Gain.
- **Energy Efficiency:** The new prison will aim to be net zero carbon ready through the specification of high fabric energy efficiency, heat pumps and energy efficient lighting, appliances, and equipment and on-site renewable energy generation.
- **Flood Risk and SuDs:** The proposed development site will benefit from Sustainable Urban Drainage Systems (SuDs).
- **Sustainable Transport:** Sustainable modes of transport will be encouraged for staff and visitors through the provision of cycle storage facilities and electric vehicle charging points in line with planning requirements.
- **Health and Wellbeing:** The promotion of health and wellbeing for future occupants has been a fundamental consideration in the design of this new prison, particularly in terms of thermal, acoustic and visual comfort, site safety and security and promoting active modes of travel.
- **Materials:** New materials will be selected based on their environmental impact and responsible suppliers will be used. The new building materials will be sourced locally where possible to reduce transportation pollution and support the local economy.
- **Waste and Recycling:** Construction waste will be minimised by applying modern methods of construction, and at least 95% (tonnes) of waste will be diverted from landfill. During operation there will be a designated Waste Management Unit which will provide facilities for the separation, recycling and disposal of solid waste streams generated across the site.
- **Water Efficiency:** Flow control devices and water efficient fixtures and fittings will be installed to reduce water consumption in line with BREEAM Wat 01 requirements.
- **Pollution:** Measures will be implemented to minimise noise, air and light pollution both during construction and operation.

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2 Introduction

2.1 Purpose of Statement

This Energy and Sustainability Statement sets out the sustainable design and construction measures included in the outline planning application for the proposed new prison development at Gartree 2 within the administrative boundary of Harborough District Council and Leicestershire County Council.

The purpose of this Statement is to demonstrate that the proposed new prison development is considered sustainable, as measured against all relevant local and national planning policy. In addition, this Statement provides an initial response to the comments received from the pre-application advice detailed below.

This Energy and Sustainability Statement does not duplicate the work of the technical reports prepared in support of the application but presents the findings in the overall context of sustainability.

2.2 Site Analysis

The proposed development lies immediately to the south of HMP Gartree, a Category B prison, which in turn, lies to the north west of Market Harborough and to the south of the village of Foxton. A development of residential properties, previously staff housing for HMP Gartree, lies to the north and west of the existing prison.

There are no listed buildings on the site or in close proximity to it. The site is not in a conservation area nor does it include or form part of a Scheduled Monument. The site is not a designated Nature Conservation site (i.e. SSSI, local nature reserve etc.). There are two ponds on the site and the site is within an area at low risk of flooding from all sources assessed (Flood Zone 1).

Due to the nature of the development and proximity to existing prisons, the site is not located within close proximity to public transport or local amenities. Notwithstanding this, the proposed development will carefully consider the inclusion of sustainable transport modes, including cycle storage facilities and electric vehicle charging points, to facilitate sustainable transport movements for staff and visitors to and from the site.

2.3 Pre-Application Advice

Pre-application advice has been sought for the outline planning application (Ref: PREAPP/ 20/00203 issued on 9th October 2020). The response did not make any specific comments in relation to energy and sustainability, but reiterated the relevant local planning policies as copied below:

“The key development plan policies of relevance are as follows:

Policy GD1: *reiterates paragraph 11 of the NPPF in respect of sustainable development.*

Policy CC1: *relates to mitigating climate change. The policy states that major development will be permitted where it can demonstrate (inter alia) the extent to which it meets relevant best practice accreditation schemes to promote the improvement in environmental and energy efficiency performance.*

Policy CC3: *states that new development should take place in the areas at lowest risk of flooding. The policy also identifies the need for a Flood Risk Assessment to accompany a planning application for major development.*

Policy CC4: *states that all major development must incorporate Sustainable Drainage Systems (SuDs).*

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Policy IN2: states that proposals should seek to maximise the use and efficiency of existing transport facilities and where necessary provide mitigating measures to deal with the impacts of development on the transport network, both within and outside the District.”

3 Planning Policy

3.1 National Planning Policy Framework (NPPF)

The latest NPPF was updated in July 2021 and sets out the Government’s planning policies for England.

The NPPF provides a framework for achieving sustainable development, which has been summarised as “*meeting the needs of the present without compromising the ability of future generations to meet their own needs*” (Resolution 42/187 of the United National General Assembly). At the heart of the framework is a presumption in favour of sustainable development.

The document states that the planning system has three overarching objectives which are interdependent and need to be pursued in mutually supportive ways:

- a) **An economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure;
- b) **An economic objective** – to support strong, vibrant and healthy communities, by ensuring that a sufficient number and range of homes can be provided to meet the needs of present and future generations; and by fostering well-designed, beautiful and safe places, with accessible services and open spaces that reflect current and future needs and support communities’ health, social and cultural well-being; and
- c) **An environmental objective** – to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

3.2 Local Policy: Harborough Local Plan 2011 to 2031

The Harborough Local Plan (adopted in April 2019) provides an overall vision for the District; a number of specific objectives; and a detailed set of policies to explain how the vision and objectives will be achieved.

This document sets out the following sustainability-related policy requirements for new developments:

Sustainable Development

- **Policy GD1 – Achieving Sustainable Development:** When considering proposals for development, the Council will take a positive approach that reflects the presumption in favour of sustainable development contained in the NPPF.

Green Infrastructure

- **Policy GI5 – Biodiversity and Geodiversity:** Development will be permitted where there is no adverse impact on biodiversity and geodiversity, and it contributes towards protecting and improving it.

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- **Policy CC1 – Mitigating Climate Change:** Major development will be permitted where it demonstrates:
 - How carbon emissions would be minimised through passive design measures;
 - The extent to which it meets relevant best practice accreditation schemes to promote the improvement in environmental and energy efficiency performance;
 - How the development would provide and utilise renewable energy technology;
 - Whether the building(s) would require cooling, and if so how this would be delivered without increasing carbon emissions;
 - How demolition of existing buildings is justified in terms of optimisation of resources in comparison to their retention and re-use; and
 - How carbon emissions during construction will be minimised.

Flood Risk and Drainage

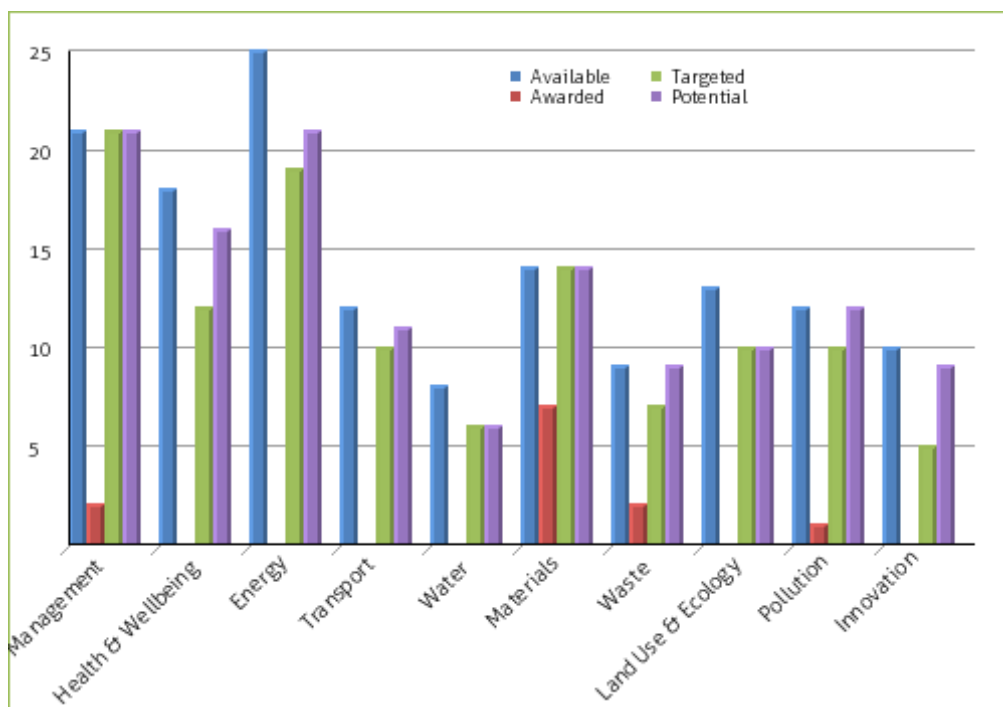
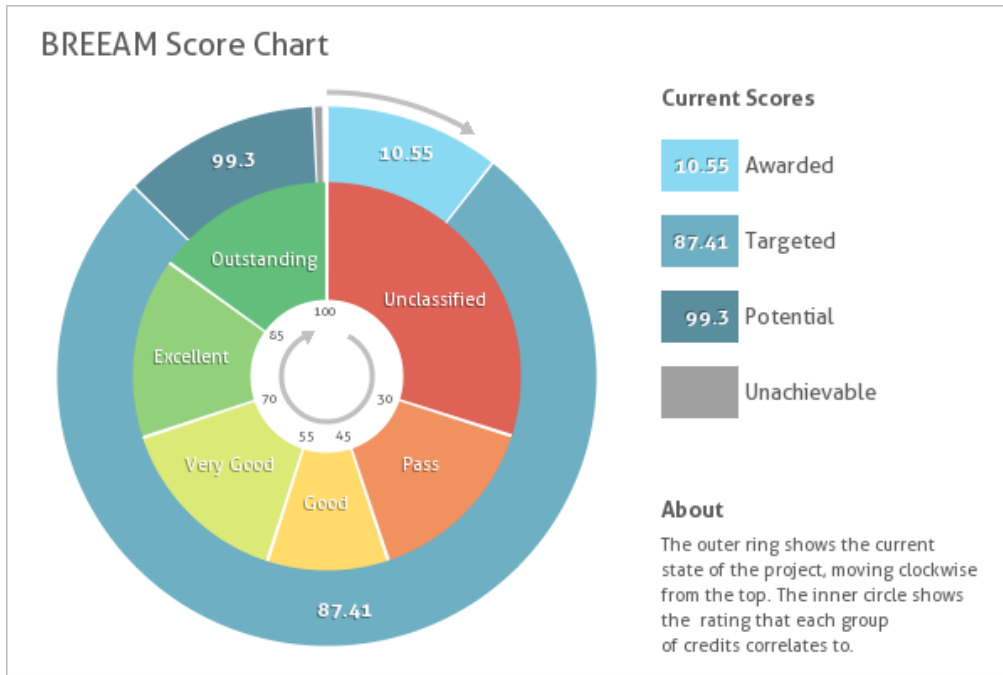
- **Policy CC3 – Managing Flood Risk:** New development should take place in the areas of lowest risk of flooding, including the potential future risk due to climate change. Site specific Flood Risk Assessments will be required.
- **Policy CC4 – Sustainable Drainage:** All major development must incorporate sustainable drainage systems (SuDS).

Sustainable Transport

- **Policy IN2 – Sustainable Transport:** Development proposals should seek to maximise the use and efficiency of existing transport facilities and where necessary provide mitigating measures to deal with the impacts of development on the transport network. Development proposals will be permitted, subject to the provision of:
 - Safe access, servicing and parking arrangements having regard to highways authority guidance and standards;
 - Measures to facilitate and encourage safe access by cycle and on foot;
 - Protection of, connection to, and extension where practicable of existing pedestrian, cycle and equestrian routes;
 - Provision for public transport enhancement where justified, including information and waiting facilities and measures to encourage public transport use;
 - Provision for the transport needs of specific groups in the community, such as the elderly and those with disabilities;
 - Provision of electric vehicle recharging facilities where appropriate; and
 - Mitigation for any adverse impact on air quality, especially in Air Quality Management Areas, and residential amenity, including traffic noise.

4 BREEAM

The new prison has been registered and will be assessed against the latest BREEAM 2018 New Construction scheme, under the ‘prison’ assessment category. A BREEAM Pre-Assessment report has been prepared and is included in **Appendix A** of this Statement. This outlines a possible route to achieving a BREEAM ‘Outstanding’ score of 85% and the minimum credit requirements. The exact route to certification may vary as the detailed design progresses. The figures below provide a high-level visual summary of the targeted score and credit weightings.



5 Planning Policy Compliance

In accordance with the relevant policy requirements of the NPPF and Harborough’s Local Plan, the following section provides a summary of the proposed development’s response. Further details are provided in the subsequent sections, supporting specialist reports and the appended BREEAM Pre-Assessment.

Planning Requirement	Development Response
Sustainable Development (NPPF and Policy GD1)	<ul style="list-style-type: none"> A minimum target of BREEAM ‘Excellent’ will be achieved with endeavours for BREEAM ‘Outstanding’.
Green Infrastructure (Policy GI5)	<ul style="list-style-type: none"> Ecology surveys have been completed and areas of high ecological value will be retained where possible. 26.29% Biodiversity Net Gain is being targeted for the site. A long-term Ecological Management Plan will be developed.
Energy (Policy CC1)	<ul style="list-style-type: none"> High fabric energy efficiency, heat pumps, photovoltaic panels and energy efficient lighting, appliances, and equipment will be specified to assist in achieving the MoJ’s target to be net zero carbon. An energy metering system and Building Management System (BMS) will be installed so that at least 90% of the estimated annual energy consumption can be assigned to an end-use category and monitored. During construction, energy consumption will be recorded and monitored, and measures will be put in place to minimise CO₂ emissions such as through the use of clean technology and using a renewable energy tariff.
Flood Risk and Drainage (Policy CC3 and CC4)	<ul style="list-style-type: none"> A Flood Risk Assessment has been completed for the site and confirms the site is at low risk of flooding from all sourced (Flood Zone 1). SuDS are to be incorporated into the drainage design. An Adaptation to Climate Change Strategy is also being developed.
Sustainable Transport (Policy IN2)	<ul style="list-style-type: none"> The site will be designed to provide safe access to, and around, the site. A Transport Assessment and Outline Travel Plan have been completed outlining sustainable transport measures for the site. Cycle facilities and 51no. storage spaces are to be provided on site. At least 10% of total parking will be allocated to electric vehicle charging points. During construction, transport will be monitored and managed in accordance with the agreed Construction Traffic Management Plan. An Air Quality Assessment has been completed. A Noise and Vibration Impact Assessment has been completed and an Acoustic Consultant has been appointed to ensure noise impacts are minimised.

5.1 Green Infrastructure

The ecology surveys confirm that the existing site is of nature conservation importance up to the Local Level and contains populations of several species. The reports provide several recommendations in conformity with protected species legislation and planning regulations.

5.2 Energy Strategy

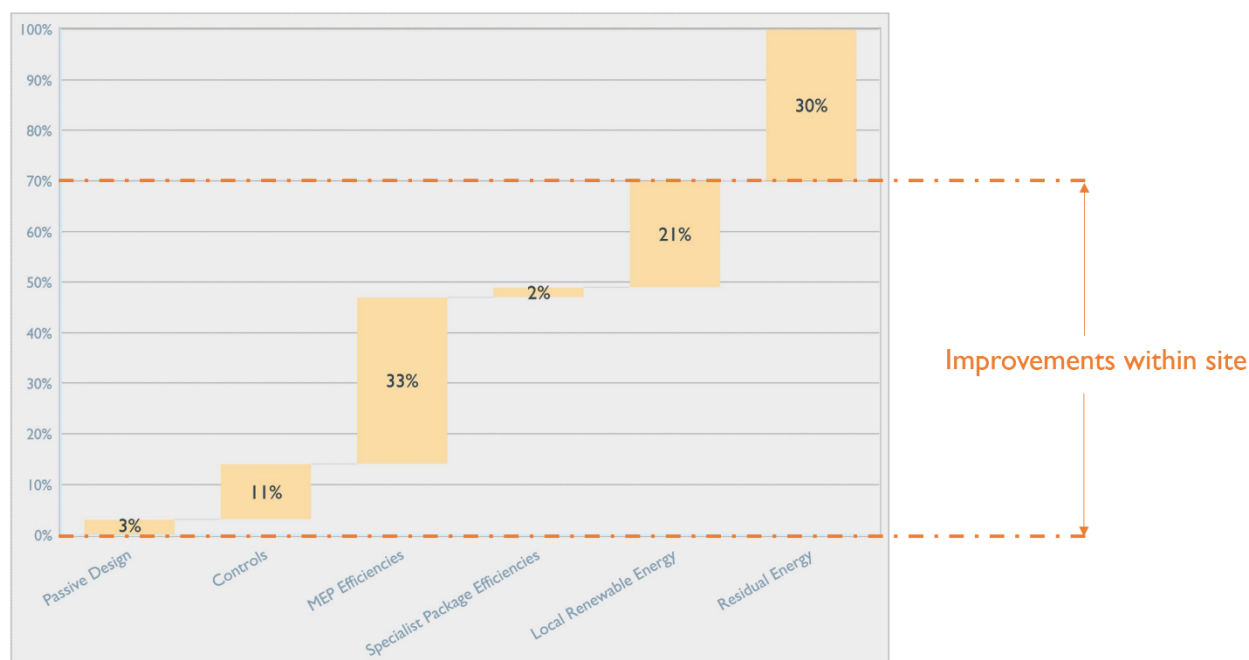
During construction, energy and fuel use will be closely monitored and measures will be put in place to reduce consumption as far as possible. The construction site will aim to be diesel-free, using at least 40% electric and hybrid plant on site, and the site will source all electricity from renewable sources.

The proposed new prison will aim to be “net zero carbon ready” which means that the buildings will be highly efficient and can be operated without the use of fossil fuels. This will be achieved through the following measures:

- Reducing energy demand from the buildings as far as possible through the specification of a highly energy efficient building fabric and low/zero carbon heating and hot water solutions (e.g. heat pumps).
- Using electricity as the primary energy source, without the need for fossil fuels (in particular natural gas).
- Future-proofing the prisons to allow the simple retrofit of any emerging technologies to reduce energy consumption and carbon emissions. This includes an allowance for future connection to local off-site renewable energy generation such as solar farms.
- Ensuring that renewable energy generation (e.g. from photovoltaic panels) is constructed on the site to provide zero carbon electricity and heat where practical.
- Using the land within the estate to capture carbon to partially offset emissions.
- Offsetting any residual carbon emissions generated by the prison operations that cannot be avoided using verified carbon offsetting providers.
- Minimising the whole life carbon emissions associated with the prison in line with PAS 2080 and taking steps to minimise the embodied carbon content as far as practicable.

The graph overleaf demonstrates the distribution across the energy hierarchy.

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The above energy strategy will exceed the minimum requirements set by local and national planning policy and is therefore considered compliant with Policy CC1.

District Heating

There are no existing community schemes or sources of waste heat and power in the vicinity of the site that could viably provide heating to the proposed scheme.

Connection to the existing heating systems with HMP Gartree was not considered viable. This was due to the complex capacity upgrades that would be required to the existing prison, with the associated operational risks to a live custodial environment.

The installation of an internal gas or biomass fired heating network for the site was not considered due to the client requirement for decarbonised sources of heating, in this case the use of heat pumps.

5.3 Flood Risk and Drainage

A detailed Flood Risk Assessment has identified that the site is within Flood Zone 1 and is at low risk of flooding from all sources assessed. Given the low risk of flooding, no specific flood resistance or resilience measures are considered necessary. It has also been demonstrated that a means of safe access and egress is possible to and from the site; and, that the proposed development is not considered to increase flood risk within the catchment through a loss of floodplain storage.

A Drainage Strategy has been prepared separately for the site and is included with the Planning Application submission. The proposed development will incorporate SuDS such as detention ponds and geocellular attenuation storage. Further details will be developed as the design progresses.

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5.4 Sustainable Transport

During construction, the contractor will be required to monitor all construction traffic and minimise impacts as far as possible. All vehicles delivering or collecting from site will be required to meet Euro 6 emissions standards. Sustainable modes of transport will be encouraged, and cycle storage and electric vehicle charging will be provided for staff.

The development is committed to delivering the following sustainable transport measures. Further details are provided in the Transport Assessment and Outline Travel Plan submitted with this application.

- At least 10% of total parking spaces will be allocated to EV charging points.
- 51no. BREEAM compliant cycle storage spaces and facilities will be provided across the site for staff and visitors.
- An appropriate level of parking will be provided.
- Direct and convenient access to/from existing pedestrian and cycle routes and public transport services.

5.5 Health and Wellbeing

The promotion of health and wellbeing for future occupants has been a key consideration in the design of this new prison.

In terms of thermal comfort, extensive thermal modelling (in line with CIBSE AM11) and an overheating assessment (in line with CIBSE Guide A/CIBSE TM52) will be undertaken. Following this the building services and façade design will be designed accordingly to reduce the risk of summer overheating.

To ensure internal visual comfort, a glare control strategy will be developed, and all internal lighting will be designed to meet the SLL Code for Lighting 2012 requirements.

The design team will consult with the MoJ's security specialist to ensure that the design of the new prison buildings, car park and amenity spaces are extremely safe and secure.

An acoustic consultant will be appointed to work with the design team to ensure the internal noise levels meet the criteria stipulated in Section 7 of BS 8233:2014.

The energy strategy is based on the use of an all-electric system, which in addition to reducing the site CO₂ emissions, will have a benefit in terms of local air quality.

Staff and visitors to the prison will have access to storage and showering facilities to encourage cycling and other active forms of transport to promote health and wellbeing.

6 Summary

The key features set out within this Energy and Sustainability Statement are outlined as follows:

- **BREEAM:** The new prison will target at least BREEAM 'Excellent' certification, with endeavours to achieving BREEAM 'Outstanding' under the 2018 UK New Construction scheme.
- **Biodiversity and Ecology:** Existing ecology will be protected where possible and ecological enhancements will be implemented to achieve 26.29% Biodiversity Net Gain.
- **Energy Efficiency:** The new prison will aim to be net zero carbon ready through the specification of high fabric energy efficiency, heat pumps and energy efficient lighting, appliances, and equipment and on-site renewable energy generation.
- **Flood Risk and SuDs:** The proposed development site will benefit from Sustainable Urban Drainage Systems (SuDs).
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- **Materials:** New materials will be selected based on their environmental impact and responsible suppliers will be used. The new building materials will be sourced locally where possible to reduce transportation pollution and support the local economy.
- **Waste and Recycling:** Construction waste will be minimised by applying modern methods of construction, and at least 95% (tonnes) of waste will be diverted from landfill. During operation there will be a designated Waste Management Unit which will provide facilities for the separation, recycling and disposal of solid waste streams generated across the site.
- **Water Efficiency:** Flow control devices and water efficient fixtures and fittings will be installed to reduce water consumption in line with BREEAM Wat 01 requirements.
- **Pollution:** Measures will be implemented to minimise noise, air and light pollution both during construction and operation.

This Statement demonstrates that the proposed new prison development at Gartree 2 is considered sustainable, as measured against relevant local and national planning policy.

Appendix A – BREEAM 2018 New Construction Pre-Assessment Report