



WHITECODE
CONSULTING

Former Friends School Fields Sustainability Statement

Prepared for Chase New Homes

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Revision 1

28 June 2024

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1. Introduction

1.1 Purpose of this Document

This Sustainability Statement has been prepared by Whitecode Consulting to accompany an application for planning permission for the Former Friends School Fields site. The planning application is submitted on behalf of Chase New Homes. It is completed in line with sustainability requirements for the site and the Uttlesford Borough Local Plan 2005. The site description is as follows:

Erection of 91 no. dwellings with associated infrastructure and landscaping. Provision of playing field and associated clubhouse.

This Sustainability Statement details how the Proposed Development, will meet the high sustainability aspirations of the Local Planning Authority – Uttlesford District Council and addresses the sustainability and energy requirements set out in the National, Regional and Local planning policies in relation to sustainable design and construction.



Figure 1.1 Proposed Site Plan

2. Planning Policy and Targets

The energy and sustainability policies relevant to the Proposed Development are highlighted below.

2.1 National Building Regulations

The proposed development will be constructed to be compliant with Part L 2021 of the Building Regulations. The proposed development consists of 91 dwellings which, as domestic buildings, will be assessed under Part L1A 2021. The non-domestic areas of the development will be assessed under Part L2A. They mandate that the design of the building demonstrably causes lower carbon dioxide (CO₂) emissions than a notional equivalent of given specifications.

2.2 National Planning Policy Framework

National planning policy on sustainability is set out in the National Planning Policy Framework (NPPF). The NPPF was updated in December 2023 and re-emphasised the Government's commitment to sustainable development. It encourages planning authorities to take an approach based on integrating the three objectives of sustainable development:

- 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.
- A social 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
- 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.

2.4 Local Planning Policies

The proposed development lies in the borough of Uttlesford, therefore, the applicable Local Planning Policy is the Uttlesford Local Plan 2005. The Uttlesford Local Plan 2019 was withdrawn in April 2020 and a subsequent local

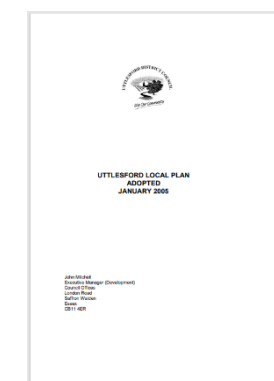
plan is in consultation. The new Local Plan is expected to be adopted in Summer 2024 but is not yet applicable to new applications.

The Uttlesford Local Plan 2005, sets out long-term energy and sustainability-related standards for the Borough as follows:

- Policy GEN 1 – Access
- Policy GEN 2 – Design Policy
- Policy GEN 3 – Flood Protection
- Policy GEN 4 – Good Neighbourliness
- Policy GEN 5 – Light Pollution
- Policy GEN 7 – Nature Conservation
- Policy ENV 7 – The Protection of the Natural Environment - Designated Sites
- Policy ENV 8 – Other Landscape Elements of Importance for Nature Conservation
- Policy ENV 11 – Noise Generators
- Policy ENV 15 – Renewable Energy

Uttlesford District Council approved an Interim Climate Change Planning Policy in February 2019 to ensure that developments contribute to climate change mitigation and adaptation.

While not a formal planning policy, applicants should apply the interim policies to their proposals and, where necessary, provide a suitable explanation where they have not been applied.



3. Energy and CO₂ Emissions

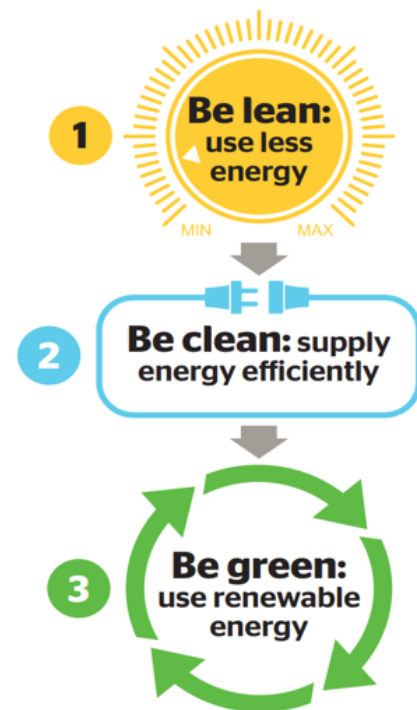
This section will cover the following policies:

- Uttlesford Local Plan Policies GEN 2 and ENV 15
- Uttlesford Interim Climate Change Planning Policies

Both Uttlesford Local Plan Policy GEN 2 and Interim Climate Change Policies seek to promote development which minimises carbon emissions and greenhouse gas emissions and maximises the use of renewable or low-carbon energy generation.

3.1 Proposed Energy Strategy

An Energy Strategy has been prepared by Whitecode Consulting to accompany the planning application. The residential elements have been assessed against Part L1A 2021 of the Building Regulations using the Standard Assessment Procedure (SAP) 10.2 methodology. The non-residential elements have been assessed under Part L2A 2021 of the Building Regulations using DSM methodology and IES software. The strategy outlines the proposed energy strategy for the site following the energy hierarchy Be Lean – Be Clean – Be Green.



- **Be Lean** – improved building fabric specification to exceed that of the notional building, low air permeability target, thermal bridging details and selection of energy efficient services.

- **Be Clean** – connection to a district heat network and installation of Combined Heat and Power (CHP) have been investigated for the site and not been deemed either available or appropriate at this time.

- **Be Green** – Highly efficient air source heat pumps are to be installed, as well as photovoltaic panels

- The scheme is designed to meet the requirements of the more onerous 'option 1' of the Future Homes Standard which is currently in consultation but recommends ASHP and PV panels for each dwelling.

Energy efficiency is the first stage of the energy hierarchy. Energy demand should be reduced as far as possible before the heating strategy and installation of low-carbon and renewable technologies are considered. This is important in protecting consumers from high prices.

The building will be constructed to achieve an improved thermal performance compared with Building Regulations minimum standards. The table below shows the proposed u-values for this development:

Element:	Part L 2021 Limiting Values:	Domestic design	Non-domestic design
Floors	0.25 W/m ² K	0.12 W/m ² K	0.12 W/m ² K
External Walls	0.30 W/m ² K	0.17 W/m ² K	0.18 W/m ² K
Common Area Walls (unheated space)	0.30 W/m ² K	0.20 W/m ² K	N/A
Party Walls (between dwellings)	0.20 W/m ² K	0.00 W/m ² K	N/A
Roofs	0.20 W/m ² K	0.12 W/m ² K	N/A
Front Doors	2.00 W/m ² K	1.20 W/m ² K	N/A
Windows	2.00 W/m ² K	1.20 W/m ² K	1.60 W/m ² K
Window g-value	N/A	0.72	0.40
Air Permeability Rate	10m ³ /hm ² (@50Pa)	5 m ³ /hm ² (@50Pa)	3m ³ /hm ² (@50Pa)

The development proposes the specification of air source heat pumps and photovoltaic panels (PV) to meet the 'Be Green' part of the energy hierarchy. The report concludes that the proposed **residential** development will achieve a 66% improvement over Part L 2021 of the Building Regulations and the **commercial** development will achieve a 43% improvement. **Overall**, the proposed development will achieve a 66% improvement over Part L 2021 of the Building Regulations (site-wide).

	Total regulated emissions (tonnes CO ₂ /year)	CO ₂ /year (tonnes CO ₂ /year)	Percentage saving (%)
Part L 2021 baseline	105.9		
Be lean	106.2	-0.2	0%
Be clean	106.2	0	0%
Be green	36.3	69.9	66%
Total savings		69.7	66%

Site-wide carbon savings

4. Transport

This section will cover the following policies:

- Uttlesford Local Plan Policy GEN 1
- Uttlesford Interim Climate Change Planning Policies

Uttlesford Local Plan Policy GEN 1 and the Uttlesford Interim Climate Change Planning Policies call for a reduction in the use of cars and promotion of the use of suitable transport means such as public transport, cycling and walking. Developments should also consider improvements to the pedestrian and cycling environment and promote the use of more sustainable modes of transport. Transport Assessments and Travel Plans are required to be submitted with planning applications.

A *Transport Assessment* was prepared by Paul Basham Associates Ltd to support the planning application. It reviews the existing transport and movement conditions and site access arrangements. The assessment also reviews the anticipated transport impacts of the development.

4.1 Public Transport

The nearest bus stops are located approximately 20m east of the Site along Mount Pleasant Road. Four bus routes serve these bus stops providing connections to Stanstead Airport and Great Dunmow. Three services run hourly Monday to Saturday with one route providing a school service for surrounding areas, running at 15:42 Monday to Saturday.

Approximately 200m northwest of the site on Debden Road is a pair of bus stops that provide access to a bus service between Saffron Walden and Audley End Railway Station. The bus services stop at the bus stops at 07:11 and 17:32.

Audley End Railway Station is located approximately 4.5km southwest of the site. The station is operated by Greater Anglian and provides direct southbound services into London Liverpool and northbound services to Cambridge and Norwich.

4.2 Local Amenities

The proposed development is ideally located within reasonable walking and cycling distance to a wide range of local facilities and amenities which will reduce the need for car journeys. A restaurant, dentist, school, GP surgery and supermarket are just some of the amenities within 1200m of the Site.

4.3 Cycling

Cycle parking provision will be delivered in accordance with Essex County Council guidance. Secure cycle parking will be provided within garages or sheds of each house, and the proposed flats will be provided with secure cycle parking storage via a shared communal cycle store located within the car park.

4.4 Car Parking

A total of 195 car parking spaces are proposed, with two car parking spaces provided per house, located adjacent to the dwelling and one space allocated per flat located within a communal parking facility. The remainder of the spaces are unallocated car parking spaces for the flats and visitor parking.

The Transport Assessment concludes that the proposed development will have a negligible impact on the operation of the local highway network.

5. Materials

This section will cover the following policies:

- Uttlesford Interim Climate Change Planning Policies

Uttlesford Interim Climate Change Planning Policies require new developments to consider Modern Methods of Construction, optimise resource efficiency by minimising materials required, specify sustainably sourced construction materials and use robust materials which can be easily maintained, replaced and adapted thus reducing unsustainable maintenance or excessive replacement.

5.1 Green Guide Ratings

Materials for the main building elements (roof, external walls, windows, upper floor slab and floor finishes) will be specified to have a lower environmental impact over their life cycle, according to the BRE's Green Guide to Specification document.

5.2 Responsible Sourcing

Materials for key building elements are encouraged to be responsibly sourced with 100% of timber and timber-based products to be legally harvested and traded timber. Other specified materials will be encouraged to have responsible sourcing certification to schemes such as BES6001 and ISO14001.

5.3 Designing for Durability and Resilience

The design of the buildings will incorporate suitable durability and protection measures to prevent damage to vulnerable parts of the internal and external building and landscaping elements. Measures such as bollards in delivery/drop-off areas, specification of hard-wearing wall and floor finishes in communal areas and kick plates on doors will be considered to minimise the frequency of replacement and maximise materials optimisation.

6. Waste

This section will cover the following policies:

- Uttlesford Local Plan Policy GEN 2
- Uttlesford Interim Climate Change Planning Policies

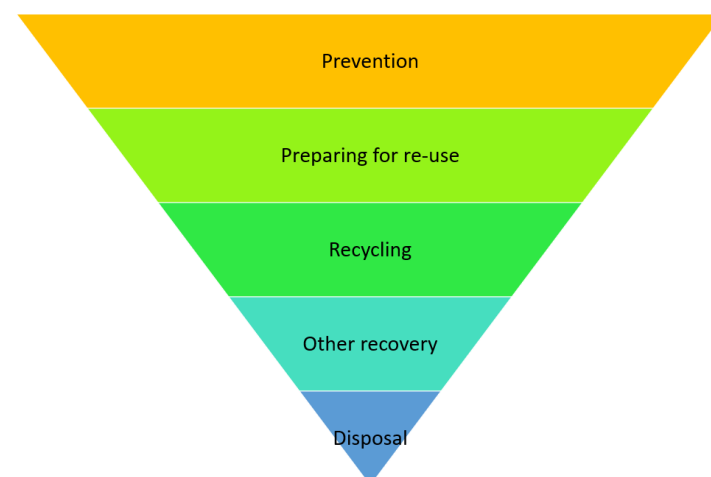
Policy GEN 2 of Uttlesford Local Plan requires new developments to help reduce waste production and encourage recycling and reuse.

Uttlesford Interim Climate Change policies also encourage new developments to consider construction and demolition methods that minimise waste generation and re-use/recycle materials and buildings, as far as practicable on-site. The policy also requires new developments to provide sufficient space that allows for the effective sorting, recycling and composting of operational waste.

6.1 Construction Site Waste Management

A Site Waste Management Plan (SWMP) will be implemented to include details on waste minimisation strategies that will be incorporated into the design and procurement stages. It will also detail how waste will be managed during construction with predictions made for various waste streams.

The waste hierarchy strategy will be employed on-site to minimise the volume of waste produced and divert waste from landfill as far as possible.



Waste segregation strategies will be developed and implemented, with general, COSHH, gypsum/plasterboard and liquid waste to be segregated as a minimum.

6.2 Reuse and Recycling

Prefabrication and off-site cutting of materials will be utilised wherever possible to minimise site waste. Contractors will be required to arrange take-back agreements for packaging and encouraged to implement on-site initiatives to reuse materials such as timber. Suitable excavation waste will be reused for backfill.

6.3 Operational Waste

The development has incorporated good practice and planning policy to ensure the provision of adequate, suitable and dedicated waste storage space which is easily accessible. The waste storage will include space for both recyclable and non-recyclable waste.

Waste storage facilities will be provided in accordance with Uttlesford standards for general waste and recyclables, with recyclable material storage clearly labelled. The current waste strategy proposals include communal refuse storage rooms for the flats, adjacent to each block and a dedicated bin storage area within the curtilage of each house.

To facilitate segregated household recycling, new homes will be fitted with separate integrated bins consisting of at least three separate compartments with a total capacity of at least 30 litres and each with a capacity of at least 7 litres. A compost bin will also be provided in private gardens of 50m² or above.

7. Water

This section will cover the following policies:

- Uttlesford Local Plan Policy GEN 2 and GEN 3
- Uttlesford Interim Climate Change Planning Policies

Due to the effects of climate change, we are likely to see a change in UK summer temperatures and rainfall intensity leading to droughts and flooding. Uttlesford's Local Plan policy GEN 2 seeks to encourage new developments to consider the long-term impact of climate change and water as a precious resource and incorporate measures to mitigate any potential impacts.

Both the Local Plan Policy GEN 3 and Uttlesford Interim Climate Change Planning Policies require all developments to manage and reduce flooding from all sources and implement Sustainable Drainage Systems (SuDS).

Additionally, in accordance with Uttlesford Interim Planning Policy, all residential developments should meet the technical standard for water efficiency of 110 litres per person, per day.

7.1 Flood Risk Management

A *Flood Risk Assessment* prepared by Amazi Consulting Ltd confirms that the Site is located in Flood Zone 1, indicating a low risk of fluvial and tidal flooding. The report also confirms that the development is not considered to be at risk of surface water or groundwater flooding.

7.2 Surface Water Runoff

A *Drainage Strategy* has been prepared by Infrastructure Design Ltd to accompany the Planning Application and confirms that cellular soakaways will be installed to accommodate the runoff from all storm events, including the peak 1 in 100 years, plus climate change storm events. Permeable paving is also proposed in access roads, car parking aisles and parking bays. This will also serve to improve water quality prior to discharge to the ground.

7.3 Water Consumption

The water calculation in the table below shows how < 110 litres per head per day can be achieved. Residents will be metered on their water usage. This can change the behaviour of how occupants use their water, as they try to make savings.

Fitting:	Flow Rate/Capacity:	Water Use (L/person/day):
WC	6/3 litres dual flush	8.88
Wash Hand Basin	5 litres/min	9.48
Bath	170 litres to overflow	18.70
Shower	8 litres/min	34.96
Kitchen Tap	5 litres/min	12.56
Washing Machine	8.17 litres/kg	17.16
Dishwasher	1.25 litres/place setting	4.50
	Calculated Use	115
	Normalisation Factor	0.91
	Total Consumption	104.6

Proposed residential water flow rates/capacities.

8. Pollution

This section will cover the following policies:

- Uttlesford Local Plan Policy GEN 4, GEN 5 and ENV 11
- Uttlesford Interim Climate Change Planning Policies

Policy GEN 4 of the Uttlesford Local Plan requires developments to ensure that no significant noise intrusion will arise from the development whilst policy ENV 11 aims to ensure that wherever practicable, noise-sensitive developments are separated from major sources of noise such as road, rail and air transport.

Policy GEN 5 seeks to minimise light pollution by minimising light spill and glare which can arise from new developments. Measures should be incorporated to minimise an adverse impact on human health, amenity and wildlife habitats.

Likewise, Uttlesford Interim Climate Change Planning Policies encourage new developments to mitigate against its impact on air, land, light, noise and water both during the construction process and the lifetime of the completed development.

8.1 Noise and Vibration

A *Noise Assessment* was prepared by Cass Allen to accompany the Planning Application to establish noise affecting the habitable areas of the proposed development and noise emissions from a proposed ASHP at the position of existing sensitive receptors in the area.

Average, maximum and background noise levels were recorded across the existing site during the noise survey. The report identified that the primary dominant source was traffic along Mount Pleasant Road with areas at the northern edges of the site being subjected to the highest noise levels.

LAeq and LMax noise levels have been analysed, and it has been calculated that acceptable internal noise levels will be achievable in the development subject to the specification of suitable glazing and ventilation systems at the detailed design stage.

The Noise Assessment also investigated the impact of mechanical plant noise. The current plant proposed for the development is Air Source Heat Pumps.

The measured background noise levels have been used to develop limits for plant noise emissions from the new development at the positions of the surrounding residential properties in accordance with the BS4142 assessment methodology.

Results indicate that the predicted plant noise level at the nearest new and existing sensitive receptors is equal to or lower than the daytime BS4142 noise criteria. The report concludes that the proposed plant is considered to be acceptable with regards to noise however, as the design of the plant system is developed in more detail, Cass Allen will be reviewing details to ensure compliance with BS4142 noise limits.

8.2 Air Quality

During Construction

The *Air Quality Assessment*, prepared by Cass Allen identified, the development to be 'High Risk' for dust soiling effects and 'Low Risk' for PM10 health effects, in the absence of mitigation. The report provides mitigation measures to be implemented to reduce the risk of dust pollution. Measures include:

- Use water-assisted dust sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site. This may require the sweeper to be continuously in use.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering and leaving sites are covered to prevent the escape of materials during transport.
- Inspect on-site haul routes for integrity and instigate necessary repairs to the surface as soon as reasonably practicable.
- Implement a wheel washing system.
- Access gates to be located at least 10m from receptors, where possible.

The report concludes that by following the implementation of the recommended applicable mitigation measures for the relevant activities' risk levels effect of the construction phase on air quality will be not significant.

In Operation

An *Air Quality Assessment* also investigates the impact of the new development on existing conditions. The report concludes that the operational phase generated vehicle movements are not expected to exceed the relevant EPUK & IAQM LUPDC guidance screening thresholds, and therefore, an overall 'not significant' effect is anticipated, with no requirement for additional mitigation measures.

9. Conservation, Ecology and Biodiversity

This section will cover the following policies:

- Uttlesford Local Plan Policy GEN 7, ENV 7 and ENV 8
- Uttlesford Interim Climate Change Planning Policies

Local Plan Policy GEN 7 and Uttlesford Interim Climate Change Planning Policies seek to support the conservation and enhancement of the natural and local environment. New developments are encouraged to protect and enhance existing environmental assets and create new ones where possible.

9.1 Pre-development Ecological Value

An *Ecological Impact Assessment* was prepared by ACD Environmental to accompany the Planning Application. The report identified that the site is predominantly grassland, with a line of trees present on the northern and eastern boundaries, and a woodland present in the south-eastern part of the site. Of the habitats present, the woodland and lines of trees are considered to be the most valuable and will be retained.

Habitats on site have been assessed as suitable for nesting birds, foraging and commuting bats, and foraging and commuting badgers. Hedgehogs may also enter the site.

The report concludes that there are no designated sites that will be affected by the development due to the distance from the Site.

9.2 Ecological Enhancement

The development presents an opportunity to enhance the biodiversity within the new development with appropriate native and diverse planting.

New enhancements that have been included in the new landscape proposals include:

- Inclusion of wildflower seed mix and meadow mixture grassland
- Inclusion of 101 new trees
- Enhancement of woodland

The woodland will be managed under a 30-year woodland management plan which will include details of thinning and removal of undesirable species.

Additional enhancement recommendations include:

- Installation of bird boxes
- Provision of bat boxes
- Wood from felled trees will be used to create a woodpile suitable for stag beetles and reptiles.
- Creation of 'hedgehog highways' across gardens through closed board fencing with a small hole cut into the base.

As a result of delivering all recommendations for enhancement, the report concludes that the proposed development is expected to result in net biodiversity gains.

10. Summary

Below is a short summary for each section discussed in this report, showing how the application site meets the requirements set out in the National and Local Planning Policies with regard to sustainability design and construction.

Energy

The Energy Strategy indicates that the development can achieve a 66% improvement over Part L 2021 of the Building Regulations through the implementation of passive measures and ASHPs to service the non-residential elements of the development.

Transport

The Site is served by several bus connections running every hour to destinations such as Stanstead and Great Dunmow. The new development is also ideally located within close proximity to a wide range of local amenities reducing the need for car journeys.

Secure cycle parking will be provided within garages or sheds of each house, and the proposed flats will be provided with secure cycle parking storage via a shared communal cycle store located within the car park. This is in line with Uttlesford District Council's guidelines.

A total of 195 car parking spaces are proposed, with two car parking spaces provided per house, located adjacent to the dwelling and one space allocated per flat located within a communal parking facility. The remainder of the spaces are unallocated car parking spaces for the flats and visitor parking.

Materials

Materials for key building elements are encouraged to be responsibly sourced with 100% of timber and timber-based products to be legally harvested and traded timber.

The design of the building will incorporate suitable durability and protection measures to prevent damage to vulnerable parts of the internal and external building and landscaping elements. This will minimise the frequency of replacement and maximising materials optimisation.

Waste

A SWMP will be produced prior to the commencement of any work on site. The SWMP will detail how waste minimisation strategies will be incorporated into the design. The waste hierarchy is employed on-site to minimise the volume of waste produced.

Additionally, sufficient storage space will be provided to enable the segregation of recyclable materials as well as general waste in line with the Uttlesford District Council's guidelines.

Water, Flood Risk and Drainage

The *Flood Risk Assessment* confirms that the site is not at risk of flooding from tidal, fluvial, surface water, groundwater and surface water.

The proposed surface water drainage strategy will be designed for a 1 in 100-year event plus an allowance for 40% Climate Change. Permeable paving is also proposed in access roads, car parking aisles and parking bays. This will also serve to improve water quality prior to discharge to the ground.

Residential water consumption will be restricted to < 110 litres per head per day in line with Local Plan policies and residents will be metered on their water usage to encourage a change in the behaviour of how occupants use their water.

Fitting:	Flow Rate/Capacity:	Water Use (L/person/day):
WC	6/3 litres dual flush	8.88
Wash Hand Basin	5 litres/min	9.48
Bath	170 litres to overflow	18.70
Shower	8 litres/min	34.96
Kitchen Tap	5 litres/min	12.56
Washing Machine	8.17 litres/kg	17.16
Dishwasher	1.25 litres/place setting	4.50
	Calculated Use	115
	Normalisation Factor	0.91
	Total Consumption	104.6

Pollution

The development seeks to reduce the demand for car journeys by promoting the use of public transport links and providing ample secure cycle parking to encourage a move away from car travel.

The reduction in operational CO₂ emissions and promotion of more sustainable means of transport will contribute positively to the local air quality.

The *Air Quality Impact Assessment* concludes that overall, the Proposed Development will have a non-significant effect on air quality, during both the construction and operational phases.

The new development has been assessed against noise to establish the prevailing environmental sound climate around the site.

Suitable mitigation measures and glazing specifications will be established to ensure that development will achieve acceptable noise levels for internal noise and that noise egress from surrounding roads is minimised.

Conservation, Ecology and Biodiversity

The *Preliminary Ecological Appraisal* enhancement proposals, such inclusion of wildflower seed mix and meadow mixture grassland and the planting of 101 new trees. As a result of delivering all recommendations for enhancement, the report concludes that the proposed development is expected to result in net biodiversity gains.

11. Conclusion

This Sustainability Report has been developed to accompany an application for planning permission for the development at Former Friends School Fields.

Erection of 91 no. dwellings with associated infrastructure and landscaping. Provision of playing field and associated clubhouse.

The development is aiming to achieve 66% improvement over Part L 2021 Building Regulations. Through this objective, the Applicant is ensuring that they maximise the opportunities to enhance the environmental performance of the development and ultimately exceed Building Regulations and Uttlesford District Council's Local Plan requirements.



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