

EML Facility Expansion

Sustainability Statement

July 2022

Quality information

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Executive summary

Overview

This document has been prepared in support of the Full Planning Application for the EML Facility Expansion (the 'Planning Application') submitted in July 2022, on behalf of Eisai Manufacturing Limited (EML) (also referred to as the 'Applicant'). Eisai Manufacturing Limited (EML) is one part of the European Knowledge Centre at Hatfield, alongside Eisai Europe Limited.

The Proposed Development set out in the Planning Application forms part of proposals for an extension to the Eisai European Knowledge Centre.

This Sustainability Statement summarises key sustainability measures that have been integrated into the design of the Proposed Development. It draws on relevant, more detailed information contained in a number of specialist reports, including (but not limited to) the Design and Access Statement, Transport Statement, Framework Travel Plan, Flood Risk Assessment, Drainage Strategy, Noise Impact Assessment, Preliminary Ecological Assessment and Construction Logistics and Constraints Plan, which have been prepared and submitted to support the Planning Application.

Proposed Development

The Proposed Development will extend Eisai's EML (manufacturing) building south-west towards Tamblin Way and south-east towards Goldsmith Way.

Planning permission is sought for 4,012 sqm GEA of warehouse space (Use Class E) including associated office space, plant and access.

The proposed expansion of the development site includes the following:

- Proposed extension/relocation to existing canopy;
- Additional goods in area with plant above (390 sqm);
- Warehouse supporting area with plant above (296 sqm);
- High bay warehouse (1,142 sqm);
- Warehouse extension (447 sqm); and
- Changing & packaging lines with offices & plant floor above (1,737 sqm).

Policy Context

The following planning policy documents were considered when identifying the policy drivers relevant to the Application:

- National Planning Policy Framework (July 2021)
- Welwyn Hatfield Local Plan (April 2005)
- Welwyn Hatfield Borough Council Draft Local Plan Proposed Submission (August 2016)

The following additional documents have informed sustainability-related proposals for the Proposed Development:

- BREEAM for New Construction, v. 2018

Overall environmental performance requirements

The Applicant seeks to achieve a BREEAM 'Very Good' rating against the 'BREEAM New Construction 2018 – Industrial' scheme. The scope of the assessment is 'Fully fitted'. A pre-assessment has been undertaken to demonstrate that a BREEAM rating of 'Very Good' is considered achievable for the Proposed Development.

A holistic approach to sustainability

Sustainable development principles have informed the design of the Proposed Development from the outset. The scheme incorporates measures that will contribute to social and economic sustainability, in addition to being environmentally responsible and resource efficient.

Key sustainability measures are summarised below.

Health and Wellbeing

The Proposed Development will be designed to be inclusive and easily accessible for all users, including for wheelchair users. It is easily accessed by pedestrians and cyclists and has good access to public transport. Active forms of travel to the proposed Development will be encouraged.

Energy

The energy strategy for the proposed development has been developed following the energy hierarchy, which aims to minimise energy demand before fulfilling the residual demand using the most sustainable energy sources available. A high standard of fabric and energy efficiency is being specified to reduce energy demands and CO₂ emissions. The Proposed Development will include a connection to the existing site's energy centre, which will meet the Proposed Development's space heating demand. Low and zero carbon (LZC) technologies, in the form of chillers, which use air source heat pump technology, and photovoltaics will be utilised to reduce the Proposed Development's CO₂ emissions.

Transport

A Framework Travel Plan has been developed for the Proposed Development with an overall objective of reducing the number of car borne trips to and from the Site. The Framework Travel Plan assesses the existing, local pedestrian and cyclist routes, cycle parking facilities, public transport accessibility and car parking. The Framework Travel Plan for the Proposed Development includes a number of measures aimed at facilitating successful travel mode changes.

Flooding and Water

A Flood Risk Assessment (FRA) has been undertaken for the Proposed Development. The FRA confirms that the Site is at a low risk of flooding from all sources. Furthermore, the development will not increase flood risk from these potential sources either to the Site or surrounding areas. A Drainage Strategy has been developed for the Site, which includes the use of SuDs, including permeable paving and a geo-cellular storage tank. It is expected that the drainage strategy will not increase surface water runoff from the Site and this includes for a 40% climate change allowance.

The design of the Proposed Development will aim to minimise potable water consumption. This will be achieved through the specification of water-efficient sanitary fitting, the inclusion of metering, leak detection and the selection of external landscape planting with the aim of reducing irrigation demand.

Materials and Waste

Lean design principles will be considered to allow the development of a design which can both minimise quantities of materials used and the generation of construction waste. A Resource Management Plan (RMP) will be prepared in line with BREEAM Wst 01 requirements and a pre-demolition audit will be undertaken. The Proposed Development will be designed to encourage the diversion of operational waste from landfill through the provision of adequate space for the segregation, storage, movement and collection of waste.

A Sustainable Procurement Plan will be developed for the Proposed Development and responsible sourcing of construction products will be assessed against BREEAM's Mat 03 criteria. In line with BREEAM credit Mat 02, construction products will be specified with Environmental Product Declarations (EPDs), where possible. Materials made available through excavation will be reused directly on-site, where feasible. To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and its surrounding landscape, vulnerable areas will be identified, and appropriate protection measures incorporated into the building and landscape design for these areas.

Ecology

A Preliminary Ecological Appraisal (PEA) has been undertaken for the Proposed Development, it confirms that the Site has a low biodiversity value. The PEA identifies opportunities to enhance biodiversity, whilst ensuring that the Proposed Development's requirement to ensure that contaminants, including insects are kept out of the building, in line with the development brief.

Pollution

A Noise Impact Assessment has been undertaken for the proposed Development. The Noise Impact Assessment assesses the suitability of the Proposed Development and provides details on the glazing specification required to provide suitable internal noise conditions. The Noise Impact Assessment also provides recommendations for operational noise limits applicable to fixed plant and building services to ensure that acceptable background noise levels are achieved at nearby residential properties. The noise change as a result of the increase in operational road traffic has been assessed and it is deemed that it will not give rise to a significant effect.

Measures are proposed to reduce light pollution from the Proposed Development, these include following the Institute of Lighting Professionals (ILP) guidance on the reduction of obtrusive light. External and internal lighting will be designed with controls that prevent lighting being on when not in use.

It is deemed that the Proposed Development does not meet any of the conditions detailed under Welwyn Hatfield's Draft Local Plan Policy SADM 18 that would require an Air Quality Assessment to be undertaken, therefore an Air Quality Assessment has not been undertaken.

1. Introduction

1.1 EML Facility Expansion Planning Application

This document has been prepared in support of the Full Planning Application for the EML Facility Expansion (the 'Planning Application') submitted in July 2022, on behalf of Eisai Manufacturing Limited (EML) (also referred to as the 'Applicant'). Eisai Manufacturing Limited (EML) is one part of the European Knowledge Centre at Hatfield, alongside Eisai Europe Limited.

The Proposed Development will extend Eisai's EML (manufacturing) building south-west towards Tamblin Way and south-east towards Goldsmith Way.

The project will be undertaken in 3 phases, as set out below:

- Phase 1 - Extension to the existing Goods In / Out area, which includes additional loading/unloading docks, dispatch office, driver's facilities, pallet storage, ambi-shields assembly and forklift charging areas. A first-floor plant room is required for the ambient/refrigerated automated warehouse;
- Phase 2 - A new high bay warehouse for automated chilled specialist storage and laydown area;
- Phase 3 - A further extension to house two packaging lines and support spaces. The first floor will be linked to the existing High Potency Packaging (HPP) building and can be utilised for additional office space for supply chain and logistics team members and associated plant areas.

The Site is located on the edge of a primarily industrial/commercial part of Hatfield. To the North and West are office buildings. To the east is the Hatfield Police Station. South of the Site are residential properties located across Tamblin Way.

1.2 Description of Development

Planning permission is sought for 4,012 sqm GEA of warehouse space (Use Class E) including associated office space, plant and access.

The proposed expansion of the development site includes the following:

- Proposed extension/relocation to existing canopy;
- Additional goods in area with plant above (390 sqm);
- Warehouse supporting area with plant above (296 sqm);
- High bay warehouse (1,142 sqm);
- Warehouse extension (447 sqm); and
- Changing & packaging lines with offices & plant floor above (1,737 sqm).

1.3 Sustainability Statement

This Sustainability Statement summarises the sustainability measures that have been integrated into the development proposals. It draws on relevant, more detailed information contained in a number of specialist reports, plans and drawings, which have been prepared and submitted to support the Application. This Statement should be read in conjunction with those reports, which include the following:

- Design and Access Statement
- Transport Statement
- Framework Travel Plan
- Flood Risk Assessment
- Drainage Strategy
- Noise Impact Assessment
- Preliminary Ecological Assessment
- Construction Logistics and Constraints Plan

Each part describes how the development proposals address sustainability under the following broad topic areas, each covered in a separate section:

- Health & Wellbeing
- Energy
- Transport
- Flooding and Water
- Materials and Waste
- Ecology
- Pollution

Relevant planning policies and requirements are listed at the beginning of each section followed by a description of how the Proposed Development will respond. Where relevant, each section notes any aspects to be addressed in the next stages of design. Proposals are summarised in a final concluding section.

2. Policy and Drivers

This section of the report outlines the national and local policies applicable to the Planning Application. The proposals set out in this Sustainability Statement, in sections 3-10, are informed by and aim to address these policies.

2.1 National Planning Policy

National Planning Policy Framework (adopted 2021)¹

The NPPF sets out Government planning policy for England. It states that 'the purpose of the planning system is to contribute to the achievement of sustainable development.' It provides guidance for local planning authorities drawing up local plans and is a material consideration for those determining applications.

The NPPF further states, 'at the heart of the National Planning Policy Framework is a presumption in favour of sustainable development.' The NPPF includes a number of chapters that are of direct relevance to the sustainability of development proposals; these include:

- Delivering a sufficient supply of homes;
- Promoting healthy and safe communities;
- Promoting sustainable transport;
- Making effective use of land;
- Achieving well-designed places;
- Protecting Green Belt land;
- Meeting the challenge of climate change, flooding and coastal change;
- Conserving and enhancing the natural environment; and
- Conserving and enhancing the historic environment.

2.2 Local Planning Policy

Welwyn Hatfield Local Plan (adopted April 2005)²

The current Welwyn Hatfield Local Plan comprises of the saved policies of the Welwyn Hatfield District Plan (adopted 2005). The following saved District Plan policies are applicable to the Proposed Development.

- Policy SD1 Sustainable Development;
- Policy R3 Energy Efficiency;
- Policy R5 Waste Management;
- Policy R7 Protection of Ground and Surface Water;
- Policy R10 Water Conservation Measures;
- Policy R11 Biodiversity and Development;
- Policy R17 Trees, Woodland and Hedgerows;

¹ Available from:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf

² Available from: <http://welhat.devplan.org.uk/document.aspx>

- Policy R18 Air Quality;
- Policy R19 Noise and Vibration Pollution;
- Policy M1 Integrating Transport and Land Use;
- Policy M3 Green Travel Plans;
- Policy M5 Pedestrian Facilities;
- Policy M6 Cycle Routes and Facilities;
- Policy M8 Powered Two-Wheelers;
- Policy M14 Parking Standards for New Development;
- Policy D5 Design for Movement;
- Policy D7 Safety by Design;
- Policy D8 Landscaping; and
- Policy D9 Access and Design for People with Disabilities.

Welwyn Hatfield Borough Council Draft Local Plan Proposed Submission (August 2016)³

Welwyn Hatfield Council is preparing its emerging Local Plan, which will cover the period between 2013 and 2032. The Draft Local Plan Proposed Submission document was published in August 2016 and forms the emerging Local Plan for the Welwyn Hatfield district.

The emerging Local Plan policies applicable to the Proposed Development are listed below:

- Policy SP1 Delivering Sustainable Development;
- Policy SADM 3 Sustainable Travel for All;
- Policy SADM 12 Parking, Servicing and Refuse;
- Policy SP 10 Sustainable Design and Construction;
- Policy SADM 13: Sustainability Requirements;
- Policy SADM 14: Flood Risk and Surface Water Management;
- Policy SADM 16 Ecology and Landscape; and
- Policy SADM 18 Environmental Pollution.

2.3 Supplementary Design Guidance

Supplementary design guidance is provided by Welwyn Hatfield Council to provide detail on how it expects planning policies, contained within the District Plan, to be implemented. The key supplementary planning documents and guidance applicable to the Proposed Development are detailed below.

³ Available from https://archive.welhat.gov.uk/media/14557/Draft-Local-Plan-Submission-Document-August-2016/pdf/Draft_Local_Plan_Submission_Document_August_2016_opt.pdf?m=636866922998770000

Welwyn Hatfield Supplementary Design Guidance (February 2005)⁴

The Welwyn Hatfield Supplementary Design Guidance document has been written to provide guidance to supplement the policies contained in the District Plan and should be read in conjunction with the District Plan.

In particular, it provides more detailed guidance on implementing the policies relating to energy efficiency contained in Chapter 5 'Resources of the Plan' and it contains the Sustainability Checklist, which is to be used to help meet the requirements of District Plan Policy SD1, which states that applicants will be expected to submit a statement with their planning application demonstrating how their proposals address the sustainability criteria in the checklist contained in the Supplementary Design Guidance.

Welwyn Hatfield District Plan SPG Parking Standards (January 2004)⁵

This supplementary design guidance document details the car and cycle parking standards of relevance to the Proposed Development.

⁴ Available from https://archive.welhat.gov.uk/media/1076/Supplementary-Design-Guidance/pdf/Supplementary_Design_Guidance.pdf?m=633930157370000000

⁵ Available from https://archive.welhat.gov.uk/media/1075/Parking-Standards/pdf/Parking_Standards.pdf?m=633930156720000000

3. Environmental Assessment Methods – BREEAM

The project is being designed with full consideration to energy and sustainability and is seeking to achieve a BREEAM ‘Very Good’ rating.

BREEAM is a recognised environmental assessment method. BREEAM seeks to minimise the adverse effects of new non-domestic buildings on the environment at global and local scales, whilst promoting healthy indoor conditions for occupants. Buildings are assessed at the design and post-construction stages using a system of environmental criteria, which are grouped into the following categories:

- Management;
- Health and Wellbeing;
- Energy;
- Transport;
- Water;
- Materials;
- Waste;
- Land Use & Ecology;
- Pollution; and
- Innovation.

The building’s performance is expressed as a BREEAM rating on the following scale:

Table 1 BREEAM rating scale

Rating	Percentage of points required
Unclassified	0%
Pass	30%
Good	45%
Very Good	55%
Excellent	70%
Outstanding	85%

It is expected that the Proposed Development will be assessed against the BREEAM ‘Fully fitted’ scope under the ‘BREEAM New Construction 2018 – Industrial’ scheme.

A BREEAM pre-assessment has been undertaken for the Proposed Development. The outcome of the pre-assessment exercise and associated assumptions are included in Appendix A. The exercise shows that a BREEAM rating of ‘Very Good’ is considered achievable for the Proposed Development.

4. Health and Wellbeing

This section outlines how the Proposed Development will contribute to the health and wellbeing of people working at the proposed EML Facility Expansion development.

4.1 Planning Policy and Guidance

The aims and proposals set out in this section are intended to address the following planning policies and standards:

- Welwyn Hatfield Local Plan (adopted April 2005): Policies D7 and D9.
- Welwyn Hatfield Draft Local Plan Proposed Submission (August 2016): Policies SP 1, SP 9, and SADM 18.
- Welwyn Hatfield Sustainability Checklist: Impact and Future Use of the Development – Accessibility; Impact and Future Use of the Development – Contribution to the Economy; and Impact and Future Use of the Development – Health and Safety.
- Environmental assessments: BREEAM 'Very Good'.

4.2 Aims and Proposals

Accessibility

The Proposed Development will be designed to be inclusive and easily accessible for all users, including for wheelchair users. The development will comply with Part M of the Building Regulations to ensure disabled people are able to access the Site and the Proposed Development. Blue Badge car parking will be provided in line with the Council's supplementary planning guidance on parking. Eighteen Blue Badge spaces are provided to serve the existing Eisai European Knowledge Centre development. The proposal is not removing any existing Blue Badge spaces and no additional provision has been made. The current provision aligns with the Council's supplementary planning guidance on parking when users from both the existing facility and the Proposed Development are accounted for. The first floor of the Proposed Development is fully accessible via a passenger lift in the HPP building, and disabled toilet facilities are provided at both ground and first floor levels.

The Proposed Development is easily accessed by pedestrians and cyclists via a number of cycle and pedestrian friendly routes. Access to public transport is good; the Site is served by two bus stops that are located within close proximity of the Site, on either side of Mosquito Way, directly to the west of the Site boundary. Hatfield Rail Station lies at the eastern periphery of the 2km walking catchment for the Site. Good pedestrian and cycle routes are provided between the public transport nodes around the Site and the Proposed Development.

Encouraging active travel

Active forms of travel to the Proposed Development will be encouraged via the provision of cycle storage facilities and shower and changing facilities in the existing Eisai European Knowledge Centre. There are currently cycle parking facilities for up to 74 cycles on site, which complies with policy for the proposed increase in staff numbers, without the need for additional provision.

Cycle storage spaces will be provided for the Proposed Development to align with the Council's Supplementary Planning Guidance – Parking Standards (January 2004). There are currently shower, changing, drying and locker facilities available for staff use.

5. Energy

This section outlines how the design of the Proposed Development will help reduce energy demand and CO₂ emissions.

5.1 Planning Policy and Guidance

The aims and proposals set out in this section are intended to address the following planning policies and standards:

- Welwyn Hatfield Local Plan (adopted April 2005): Policy R3;
- Welwyn Hatfield Draft Local Plan Proposed Submission (August 2016): Policies SADM 13, and SP 10;
- Welwyn Hatfield Sustainability Checklist: Impact and Future Use of the Development – Management of Water Resources and Construction Period – Energy Efficiency.
- Environmental assessments: 'BREEAM 'Very Good'.

5.2 Aims and Proposals

The energy strategy for the Proposed Development has been developed following the energy hierarchy steps detailed below, which aims to minimise energy demand before fulfilling the residual demand using the most sustainable energy sources available:

- Energy efficiency: A high standard of fabric and energy efficiency is being specified to reduce energy demands and CO₂ emissions. This approach includes energy efficient building fabric, high levels of air tightness and energy efficient building services.
- Utilise local energy resources: The Proposed Development will include a connection to the existing Site's energy centre, which is served by gas fired steam boilers which provide humidification steam and low temperature hot water (LTHW) via plate heat exchangers. This will meet the Proposed Development's space heating demand. Hot water will be provided via local electric point-of-use water heaters.
- Low and zero carbon (LZC) technologies: Chillers, which use air source heat pump technology, will be utilised to provide cooling to the Proposed Development. A roof-level photovoltaic (PV) array is included within the Proposed Development's design.

Energy efficient fabric and services

The Proposed Development will be designed with high fabric and building services efficiency. Consideration will be given to the following key measures:

- Orientation and layout of the Proposed Development, within the realms of what is possible.
- Localised shading to reduce cooling loads. Brise soleil has been added to the South Elevation windows and the ground floor has set back glazing.
- High performance U-values for the building fabric. High specification materials will be used to achieve the required internal operating conditions.
- Reduction of thermal bridging through the careful design of junctions at detailed design stage.
- High levels of air tightness.
- High efficiency lighting and mechanical ventilation with heat recovery (MVHR) systems; and
- Use of high-performance double glazing.

Fabric U-values for the Proposed Development will comply with, and exceed where possible, the minimum values provided for these elements under Part L 2021.

Glazing will be specified with a g-value that optimises the balance between utilising daylighting and solar heat gains in the winter and minimising solar contribution to cooling loads during the summer.

Architectural details will be designed to minimise heat loss via thermal bridges. Details will be designed to minimise, breaks in the insulation, areas of reduced insulation or penetrations into the insulation by elements with a higher thermal conductivity.

Efficient lighting will be included within the Proposed Development, with LED lighting specified throughout all areas, including external areas. Lighting shall be controlled according to the function of the area, with office areas having manual switching and absence detection to automatically switch off lighting when an area is not in use. Daylight reduction shall be used where daylight is present.

The ventilation strategy for the Proposed Development will be delivered via highly efficient mechanical ventilation systems with heat recovery (MVHR) to provide sufficient background air change rates. During the heating season, the MVHR will reduce space heating demand by recovering heat from the background ventilation exhaust air. The MVHR system will have a summer bypass mode to prevent contributing to cooling loads unnecessarily.

Utilising local energy resources

The Eisai European Knowledge Centre site includes an energy centre which serves existing buildings on the Site. The energy centre is served by gas fired steam boilers. The Proposed Development's space heating demand will be met via a connection to the Site's existing energy centre. The hot water demand will be met by local electric point-of-use water heaters.

Low and zero carbon technologies

The Proposed Development's is expected to be cooling led; the cooling demand will be delivered via chillers, which use air source heat pump (ASHP) technology. Heat will be recovered from the chillers to help reduce space heating demand.

Roof-level PV is included within the design of the Proposed Development. The proposed PV array is to be mounted on the lower roof of the packaging building on the south-east side of the Proposed Development and has a total PV panel area of 1,300 m². The detailed PV design, which will confirm the PV panel layout, will be undertaken post-planning, during RIBA Stages 3 and 4.

6. Transport

This section outlines how the design of the Proposed Development will encourage the use of sustainable transport methods.

6.1 Planning Policy and Guidance

The aims and proposals set out in this section are intended to address the following planning policies and standards:

- Welwyn Hatfield Local Plan (adopted April 2005): Policies M1, M3, M5, M6, M8, and M14;
- Welwyn Hatfield Draft Local Plan Proposed Submission (August 2016): Policies SADM 2, SADM 3 and SADM 12;
- Welwyn Hatfield Sustainability Checklist: Impact and Future Use of the Development – Accessibility;
- Environmental assessments: BREEAM 'Very Good'.

6.2 Aims and Proposals

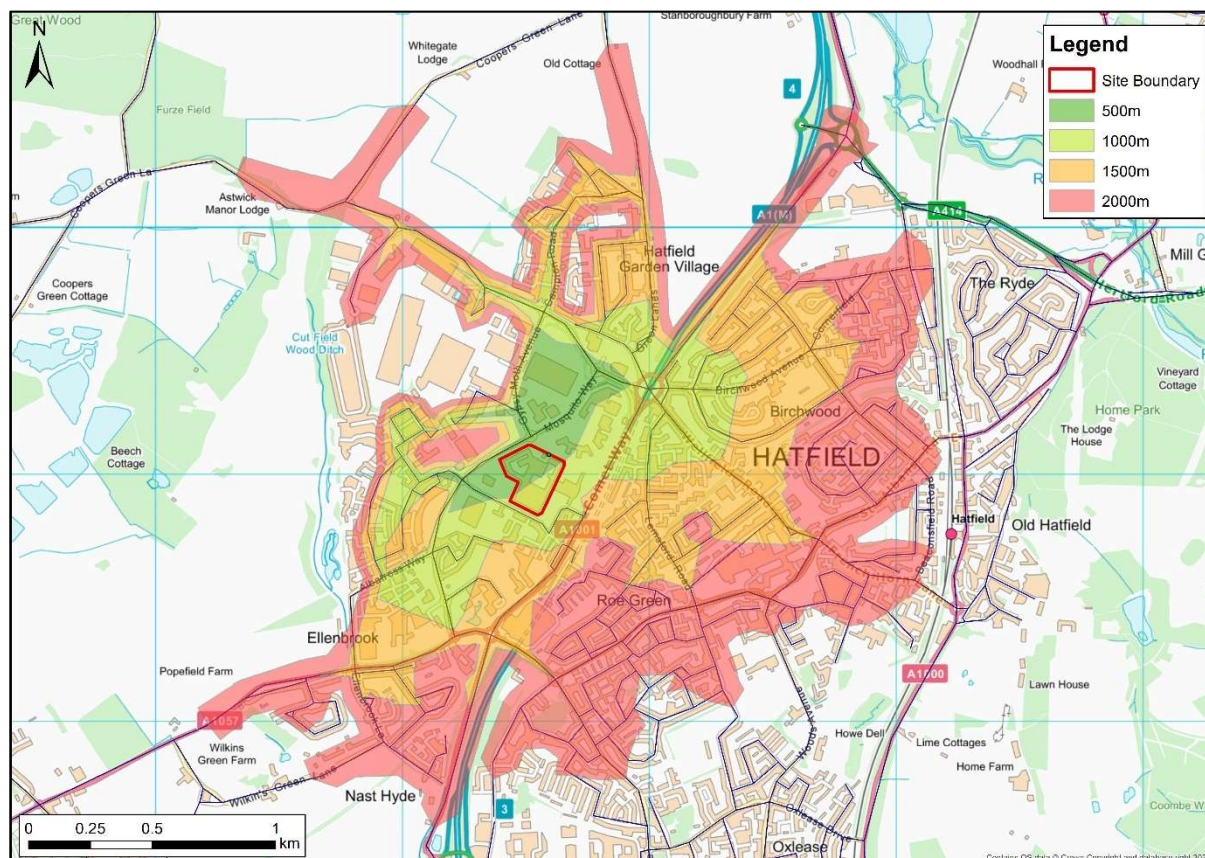
Local Walking and Cycling Routes

A Framework Travel Plan has been developed for the Proposed Development with an overall objective of reducing the number of car borne trips to and from the Site, particularly during the highway network peak periods and those which involve single occupancy of the vehicle. The Framework Travel Plan identifies the following complementary objectives that will assist in achieving the aims of the Framework Travel Plan:

- Reducing the need to travel to and from the Site;
- Addressing the access needs of users by supporting walking, cycling and the use of public transport; and
- Ensuring that employees and visitors have sufficient information to have an informed choice about their travel options.

The 'Planning for Walking' guidance produced by the Chartered Institute of Highways and Transportation (CIHT) has been considered. Further guidance set out within the CIHT guidance 'Providing for Journeys on Foot' has also been considered, in particular the section relating to desirable / acceptable / maximum walking distances. Based on this, the indicative 2km walking catchment from the Site has been generated through GIS software and is outlined in Figure 1.

Figure 1 Indicative 2km walking catchment

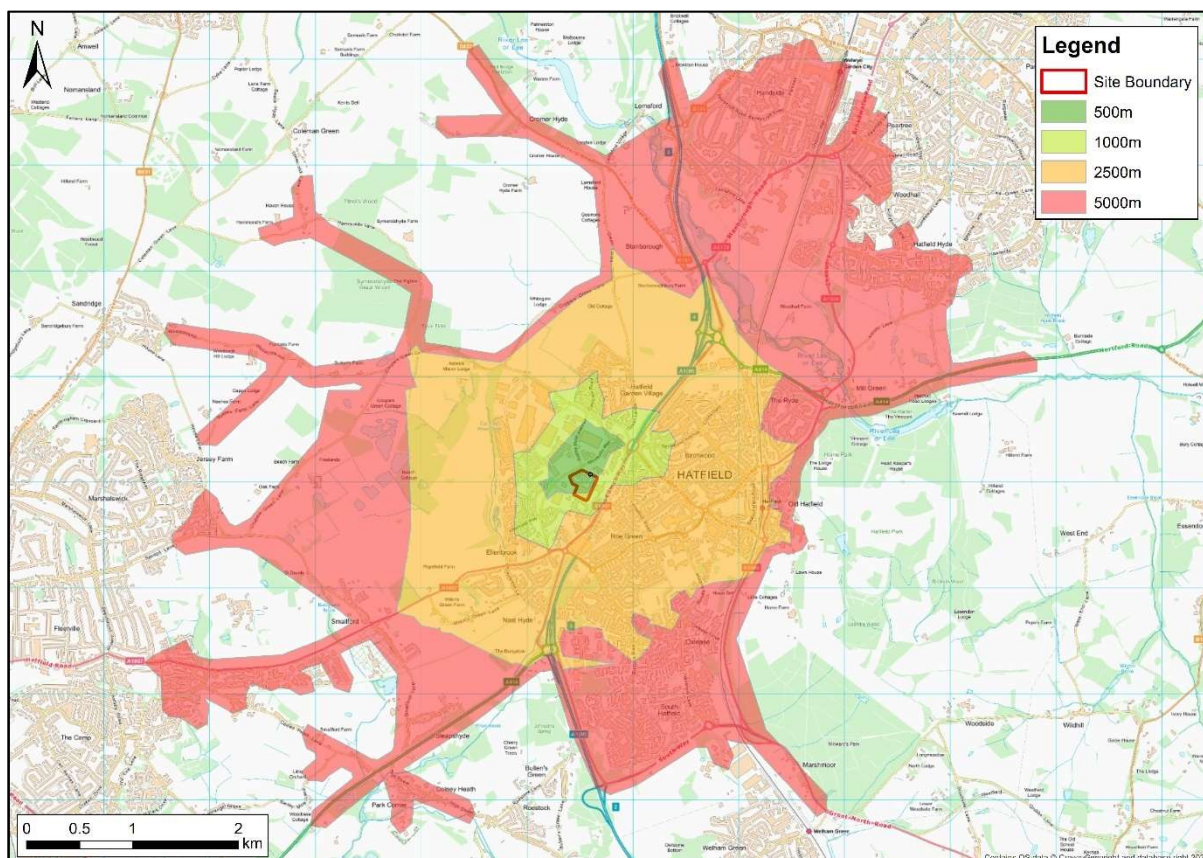


Within a 2km distance of the Proposed Development, the majority of Hatfield (including the town centre) can be accessed from the Site. Hatfield Railway Station is situated to the east of the Site and is on the very periphery of the 2km catchment.

The Site is located in a position so as to facilitate connectivity with the bordering industrial / urban area and the extents of Hatfield town centre. The provision of pedestrian-oriented infrastructure within the immediate vicinity of the Site, both from the Proposed Development's access and along Mosquito Way is excellent. Dedicated pedestrian footways flank both sides of Mosquito Way and are set-back by means of a grass verge. Tactile paving at crossing points on Mosquito Way is provided to aid those with disabilities and street lighting is consistently provided around the Site and at its peripheries; a key element in increasing propensity to adopt pedestrian modes of travel across all hours of the day.

In respect of acceptable cycling distances, 'Local Transport Note 2/08: Cycling Infrastructure Design', published by DfT, states that many utility cycle trips are less than 3 miles (approximately 5km), but for commuter journeys a distance of over 5 miles (approximately 8km) is not uncommon. The indicative 5km cycling catchment from the Site has been produced using GIS software and is outlined in Figure 2.

Figure 2 Indicative 5km cycling catchment



The existing cycle network within Hatfield Business Park (HBP) facilitates access by cyclists between HBP and surrounding areas to cross the A1(M) and travel to and from Hatfield town centre. Within a 5km distance, the Site can be accessed from Welwyn Garden City to the north, St. Albans to the west and Welham Green to the south. The majority of Hatfield and Welwyn Garden City can therefore be considered accessible by bicycle within a reasonable cycling distance.

National Cycle Route (NCR) 61 runs through the north of Hatfield providing access to St Albans via a traffic free route and Welwyn Garden City to the north. NCR 61 is accessible from HBP via a circa 800m ride. NCR 12 which lies slightly further east also passes through Hatfield and provides access to Welwyn Garden City.

Cycle Parking and Facilities

The Proposed Development will provide cycle parking in line with Welwyn Hatfield's Supplementary Planning Guidance – Parking Standards, 2004.

As part of the Proposed Development works, the existing cycle shelter in the southwest corner of the Site will be relocated. The new location is indicated on the landscape proposed layout plan. There are currently parking facilities for up to 74 cycles on site. The Framework Travel Plan state that if the demand is required, there is the potential to add capacity for a further 36 cycle storage spaces, taking the total to 110.

The Framework Travel Plan for the Proposed Development includes a number of measures aimed at facilitating successful travel mode changes. These include the following measures that aim to encourage travel to and from the Site via bicycle:

- Provision of shower, changing, storage and drying facilities;
- Provision of secure and undercover storage for bicycles;
- Raising awareness of the Bike Buddy scheme to encourage inexperienced cyclists to gain experience and confidence with experienced cyclists;
- Provision of puncture repair kits free of charge to staff who cycle;

- Provision of tax advantages and interest free loans for cycles and equipment;
- Making cycle maps available to all staff;
- Investigation into bike security tagging scheme;
- Consideration of the provision of pool bikes to enable staff to cycle off-site at lunch time / throughout the working day; and
- Offering a free ride home for those cycling to work in case of emergency.

Public Transport Accessibility

The Proposed Development seeks to maximise public transport use for journeys which cannot be made by foot or bicycle.

Public transport networks provide accessibility from the Site to Heathrow, Luton and Stansted airports and also St Pancras Station, which is served by the Eurostar European international services, making the Site accessible from wider Europe.

Hatfield Rail Station lies at the eastern periphery of the 2km walking catchment for the Site. The station is managed by Great Northern and services are provided from the station towards Welwyn Garden City, Peterborough, Stevenage and Cambridge to the north as well as Finsbury Park, London Kings Cross and Moorgate to the south. Table 2 provides an overview of the principal services provided at the station.

Table 2 Rail service provision

Destination	Journey Time (Minutes)	Average Frequency (Minutes)
Welwyn Garden City	4	30
Stevenage	15	30
London Kings Cross	24	30
Moorgate	40	15
Peterborough	60	30

The provision of rail services is considered more than sufficient so as to attract travel to the Site from employees and visitors who do not reside in Hatfield or within the immediate peripheries of the Site. It is noted that the proximity of Hatfield Rail Station to the Site allows for cyclists to easily access HBP forming part of a multi modal journey. This is complemented by secure, monitored cycle storage at Hatfield Rail Station.

Two bus stops are located within close proximity of the Site, on either side of Mosquito Way directly to the west of the Site boundary. The eastbound bus stop located along the northern side of Mosquito Way is marked by a flag-style sign along with timetabling information. The westbound bus stop located along the southern side of Mosquito Way benefits from sheltered seating as well as timetabling information.

These bus stops are served by various services as detailed in Table 3.

Table 3 Local bus service provision

Service	Route	Peak Frequency	
		Weekdays	Saturday
341	Hatfield – Ware/Broxbourne	07:15 (School Days only) 07:25 (Non-School Days) 60 Minutes afterwards	120 Minutes
601	Welwyn Garden City – St Albans/Borehamwood	30 Minutes	6 services between 07:17 and 16:07
610 Dragonfly	Enfield – Hatfield - Luton	60 Minutes	60 Minutes
614 Comet	Hatfield – High Barnet/Queensbury	30 Minutes	60 Minutes
635	Hitchin/Hatfield – Hatfield/Watford	60 Minutes	
641	Broxbourne – Hatfield, Business Park	120 Minutes	120 Minutes
644 Comet	Hatfield - Queensbury	60 minutes	

The provision of bus services can be considered excellent, which is further supported by the proximity of the bus stops to the Site itself and the excellent pedestrian-oriented infrastructure between the Site and the bus stops on Mosquito Way.

Car Parking and Electric Vehicle Charging

The Proposed Development will result in the loss of 46 existing car parking spaces that currently serve the Eisai European Knowledge Centre site, and the addition of 30 new car parking spaces. A survey has been undertaken by Eisai of current staff parking numbers per day over a year and based on this, it is deemed that the overall loss of 16 car parking spaces on the existing provision can be mitigated by the changes to working practices post-COVID-19, which has resulted in an increase in remote working. However, should it be necessary to make up for the remaining loss of spaces, there is potential to do so near the existing car park in the north-west part of the Site.

The existing site provides 18 blue badge car parking spaces, which will serve both the existing site and the Proposed Development. This aligns with Welwyn Hatfield's Supplementary Planning Guidance – Parking Standards, 2004 when accounting for both existing site users and users from the Proposed Development. The proposal is not removing any existing disabled car parking and therefore no additional provision has been made. Should additional disabled spaces be required, there is scope to locate them close to building entry points.

There are currently 24 electric vehicle charging points on site which will serve both the existing facilities on site and the Proposed Development.

7. Flooding and Water

This section outlines how the Proposed Development will address the risk of flooding (including climate change projections), manage surface water run-off and minimise water consumption.

7.1 Planning Policy and Guidance

The aims and proposals set out in this section are intended to address the following planning policies and standards:

- Welwyn Hatfield Local Plan (adopted April 2005): Policies R7 and R10;
- Welwyn Hatfield Draft Local Plan Proposed Submission (August 2016): Policies SP 10, SADM 13, SADM 14 and SP 11;
- Welwyn Hatfield Sustainability Checklist: Impact and Future Use of the Development – Management of Water Resources.
- Environmental assessments: BREEAM ‘Very Good’.

7.2 Aims and Proposals

Flood Risk

A Flood Risk assessment (FRA) has been prepared in accordance with the National Planning Policy Framework (NPPF) and Planning Practice Guidance (PPG) set out on GOV.UK in order to assess the flood risks associated with this development and set out necessary strategies for mitigating these risks.

The conclusions of the FRA are detailed below:

- The Site is wholly located in Flood Zone 1 and the development is considered ‘Less Vulnerable’ and therefore is considered compatible in accordance with the NPPF.
- The Sequential Test is considered to have been applied and passed, therefore, the Exception Test is not required.
- There is a low or very low risk of flooding to the Site from all sources, as shown in Table 4.
- There is a low or very low risk of flooding from all sources as a result of the Site, as shown in Table 5.
- The Site will not increase the risk of flooding off-site.
- The residual flood risks have been identified and mitigation measures are not proposed.

Table 4 Summary of flood risk to the development

Flood Mechanism	Source	Flood Risk to the Development	Mitigation required?	Residual Risk
Fluvial	Upper Colne and Ellen Brook, River Colne, River Lee	Very Low*	No	Very Low
Tidal	None	None	No	None
Surface Water / Overland Flow	Runoff from adjacent areas	Low*	No	Low*
Groundwater	Underlying geology and groundwater levels	Very Low	No	Very Low

Sewer	Surrounding public / private drainage networks	Low	No	Low
Artificial Sources	Nearby artificial waterbodies	Very Low	No	Very Low

*Considering the impacts of climate change

Table 5 Summary of flood risk from the development

Flood Mechanism	Source	Flood Risk to the Development	Mitigation required?	Residual Risk
Fluvial	None	Very Low*	No	Very Low
Tidal	None	None	No	None
Surface Water / Overland Flow	Runoff from Site	Low*	No	Low*
Groundwater	Underlying geology and groundwater levels	Very Low	No	Very Low
Sewer	Surrounding public / private drainage networks	Very Low	No	Very Low
Artificial Sources	Nearby artificial waterbodies	Very Low	No	Very Low

*Considering the impacts of climate change

The FRA concludes that the Site is at a low risk of flooding from all sources. Furthermore, the development will not increase flood risk from these potential sources either to the Site or surrounding areas.

Surface Water Drainage Strategy

The Drainage Strategy confirms that the Site is located in a medium risk area for groundwater vulnerability and the ground investigation suggests the infiltration rate is very low or non-calculatable and would need treatment to ensure no contaminants enter the ground. The Drainage strategy concludes that infiltration is not, therefore, considered a viable option for the disposal of surface water runoff for the Proposed Development. Water harvesting has been considered but is deemed not viable due to existing space constraints on the Site, and there are no nearby watercourses that the Site can readily discharge into; therefore, the drainage strategy proposes discharging surface water into the existing Thames Water surface water sewer.

The proposed SuDS for the Site, which have been identified in accordance with the CIRIA SuDS Manual 2015, are as follows:

- Part of the proposed road will be permeable paving with a barrier so contaminants will not infiltrate into the ground. The proposed area of permeable paving will be approximately 458 m², 0.45 metres deep and have a 30% void ratio, therefore giving an approximate storage volume of 75 m³ within the permeable paving. The runoff from the proposed road extension will be treated by the permeable paving.
- A proposed geo-cellular storage tank will be used to attenuate surface water runoff, including the water that infiltrates into, and is treated by, the permeable paving. The water entering the geo-cellular storage tank will have passed through an oil interceptor, providing adequate treatment.

The water quality of the Proposed Development has been assessed using the Simple Index Approach, from CIRIA C753 SuDS Manual. Using the Simple Index Approach, it is deemed that the proposed SuDS will provide sufficient water treatment for the discharge into the existing private network on-site and then into the Thames Water public sewer.

The Hertfordshire County Council Lead Local Flood Authority (LLFA) Summary Guidance for developers states:

“Peak discharge rates from Site will not increase as a result of the proposed development, up to a 1 in 100 chance in any year including an allowance for climate change storm event. We expect all applicants to achieve greenfield runoff rates for greenfield development Sites and to aim to provide greenfield run-off rates for all brownfield Sites to reduce the impact of the development on the surface water drainage infrastructure.”

The existing surface water drainage on the Eisai Site contains two networks, one to the north discharging into the private sewer by the roundabout and one to south discharging into the Thames Water surface water sewer along Tamblin Way. The Proposed Development falls entirely within the south catchment.

The greenfield runoff rates have been calculated for the south catchment area, and based on this, the greenfield runoff rate for the proposed impermeable area has been prorated. For the proposed additional hardstanding on the Site, the greenfield runoff rate for a 1-year return period is approximately 0.84 l/s, however this value has been increased to a final proposed discharge rate of 2 l/s as any lower rate is at risk of blockage.

Based on the PPG it is recommended that potential effects of Climate Change should be considered realistically for the lifetime of a proposed development and that “...developers, the local planning authority and Environment Agency should discuss and agree what allowances are acceptable”. Environment Agency (EA) guidance covers allowances for climate change to be considered when assessing flood risk for a development. Climate change allowances include predictions of anticipated change for peak river flow and peak rainfall intensity.

An allowance of a 40 per cent increase in rainfall intensity has been used, based on EA climate change allowance guidance. The proposed SuDS for the Site have been designed to attenuate surface water runoff for the proposed Site, up to 1 in 100 year plus 40 per cent climate change allowance, reducing the flood risk from the development to the surrounding areas. It is expected that the drainage strategy will not increase surface water runoff from the Site.

Water efficiency

The design of the Proposed Development will aim to minimise potable water consumption. This will be achieved through the specification of water-efficient sanitary fittings, such as low-flow WCs and taps, in accordance with the water efficiency requirements of the Building Regulations Approved Document Part G.

The sanitaryware specification for the Proposed Development is yet to be finalised, however, to align with the BREEAM Wat 01 target, it is likely that the following specification will be met:

- Dual flush WC – 6/3 litre flush volume;
- Wash hand basin taps – 5 litres/min;
- Showers – 6 litres/min.

The Proposed Development will be fitted with water meters to allow for the monitoring and management of water use, with the aim of reducing water consumption. Water metering will be included to align with BREEAM Wat 02 requirements. The Proposed Development will also target BREEAM Wat 03 and Wat 04 credits; these credits aim to reduce potable water consumption through the installation of water leak detection equipment and the identification of systems or processes to reduce water consumed by irrigation and other water uses that are not captured under the Wat 01 BREEAM credit.

The external landscape planting will be selected so watering will not be required beyond the establishing period, with exception to particularly dry periods when manual watering may be undertaken. No irrigation systems will be installed on-site.

8. Materials and Waste

This section outlines how the sustainable choice and use of materials will be integrated into the design of the Proposed Development. It also describes how waste will be minimised and managed during the construction and operation of the Proposed Development.

8.1 Planning Policy and Guidance

The aims and proposals set out in this section are intended to address the following planning policies and standards:

- Welwyn Hatfield Local Plan (adopted April 2005): Policy R5;
- Welwyn Hatfield Draft Local Plan Proposed Submission (August 2016): Policy SP 10;
- Welwyn Hatfield Sustainability Checklist: Impact and Future Use of the Development – Waste Management and Construction Period – Waste Management.
- Environmental assessments: BREEAM 'Very Good'.

8.2 Aims and Proposals

The design, construction and operation of the Proposed Development will aim to:

- Optimise the design to minimise waste and design for deconstruction;
- Process waste in line with the waste hierarchy;
- Manage operational waste generation efficiently, effectively and safely;
- Promote circular economy principles;
- Specify and source sustainable and responsible materials; and
- Consider the use of recycled and reclaimed materials.

Designing out Waste

Lean design principles have been considered to allow the development of a design which can both minimise quantities of materials used and the generation of construction waste. The potential for use of Modern Methods of Construction (MMC) will be considered further for the Proposed Development during detailed design stage. This is expected to include consideration of off-site prefabrication methods to increase quality, reduce wastage and support more efficient future decommissioning and recycling.

Construction Waste

A Resource Management Plan (RMP) will be prepared in line with BREEAM Wst 01 requirements. The RMP will cover non-hazardous waste materials, including demolition and excavation waste. Accurate data records on waste arisings and waste management routes will be collected during the construction period. The RMP will be reviewed and updated throughout the construction work, and will include the following:

- A target benchmark for resource efficiency of no more than 13.3 m³ of waste or 11.1 tonnes of waste per 100m² gross internal floor area;
- Procedures and commitments to minimise non-hazardous waste in line with the target benchmark;
- Procedures to minimise hazardous waste;
- A waste-minimisation target and details of waste minimisation actions to be undertaken;
- Procedures to estimate, monitor, measure and report on hazardous and non-hazardous site waste and demolition waste;

- Monthly reporting of all construction waste data throughout the project checked against what would be expected based on the stage of the project; and
- Procedures to sort, reuse and recycle construction waste into defined waste groups, either on-site or through a licensed external contractor.

The diversion from landfill benchmarks listed in Table 4 have been set as minimum targets for the Proposed Development.

Table 6 Diversion from landfill benchmarks

Type of waste	Volume	Tonnage
Non-demolition	70%	80%
Demolition	80%	90%

A Waste Champion is to be nominated for the Site to facilitate management of the RMP. This role will also aim to ensure that the waste hierarchy is considered at all times, with the emphasis being on reducing, reusing and recycling before landfill disposal is considered.

A pre-demolition audit will be carried out for the demolition of the hardstanding, with the aim of maximising the recovery of material for subsequent high grade or value applications. Consultation with local waste management facilities will be undertaken to determine which materials identified in the pre-demolition audit can be re-used / recycled and diverted from landfill.

Operational Waste

The Proposed Development will be designed to encourage the diversion of operational waste from landfill through the provision of adequate space for the segregation, storage, movement and collection of waste. It is anticipated that this provision will be guided by BREEAM Wst 03 requirements as well as local policy. Waste storage facilities will be clearly labelled to assist with segregation, easily accessible, and of a capacity appropriate to the Proposed Development's predicted volumes of waste. Where significant volumes of recyclable waste are likely to be generated, space will be allocated for suitable waste compactor or baler equipment. The Proposed Development will be designed to allow for the efficient collection of waste.

Materials

A Sustainable Procurement Plan will be developed for the Proposed Development, in line with BREEAM Mat 03 requirements. The Sustainable Procurement Plan will include sustainability aims, objectives and strategic targets to guide procurement activities. The plan will include a requirement to procure construction products locally, where possible and it will include procedures to check and verify the plan's effective implementation.

In line with BREEAM credit Mat 02, construction products will be specified with Environmental Product Declarations (EPDs), where possible. EPDs provide robust and comparable data on the impacts of construction products and provide the project team with the information required to make informed decisions with regard to selecting construction products with reduced environmental impacts.

Materials made available through excavation (for example, fill soil and gravels) will be reused directly on-site, where feasible. This will help to minimise embodied carbon and other emissions associated with the production and import of materials to site, and the removal of waste from site.

The responsible sourcing of construction products will be assessed against BREEAM's Mat 03 criteria, helping to facilitate the selection of products that are associated with lower levels of negative environmental, economic and social impacts across their supply chain including extraction, processing and manufacture. Sustainable timber will be procured to align with BREEAM Mat 03 requirements.

To reduce the need to repair and replace materials resulting from damage to exposed elements of the building and its surrounding landscape, vulnerable areas will be identified, and appropriate protection measures incorporated into the building and landscape design for these areas. Exposed parts of the Proposed Development will be protected from material degradation by environmental factors, in line with BREEAM Mat 05 requirements.

9. Ecology

This section of the Statement outlines how the Proposed Development responds to planning policies relevant to ecology and biodiversity.

9.1 Planning Policy and Guidance

The aims and proposals set out in this section are intended to address the following planning policies and standards:

- Welwyn Hatfield Local Plan (adopted April 2005): Policies R11 and R17;
- Welwyn Hatfield Draft Local Plan Proposed Submission (August 2016): Policies SP 10 and SADM 16;
- Welwyn Hatfield Sustainability Checklist: Future Use of the Development – Habitats and Species and Construction Period – Habitats and Species;
- Environmental assessments: BREEAM 'Very Good'.

9.2 Aims and Proposals

A Preliminary Ecological Appraisal (PEA) has been undertaken for the Proposed Development. The PEA assesses and identifies the potential for the Proposed Development to enhance biodiversity. The PEA confirms that the Proposed Development Site has low biodiversity value and is comprised mainly of amenity grassland, hardstanding and landscaping in the form of shrubs and young trees.

The PEA confirms that no notable or protected species were found on the Site. There are no habitats within 1 km of the Site which are listed as habitats of priority importance (HoPI) on the Natural Environment and Rural Communities Act (2004) as amended, and there are no Ancient Woodlands within 1 km of the Site. The PEA notes that significant efforts are made to ensure that contaminants, including insects, are kept out of the existing Eisai building.

The PEA confirms that young trees and shrubs will need clearing to enable the construction of the Proposed Development, and it recommends that these are removed outside of the bird breeding season to prevent the disturbance of breeding birds. Where this cannot be undertaken, an ecologist will be required to confirm the absence of active birds' nests immediately prior to clearing works commencing. Tree removal will be mitigated, where possible.

A list of the habitats recorded in the Phase 1 Habitat survey and their corresponding area are provided in Table 7.

Table 7 List of habitats in ascending area

Habitat	Brief Description	Area (hectares)	% area of the Site
Amenity grassland	Regularly mown grassed areas with a moderate diversity of plant species	0.67	45
Hard standing	Roads, pavement and car parking areas	0.57	38
Shrubs and trees	Landscaping around the edge of the Eisai Site.	0.16	12
Strip of mosses and lichen	1-1.5 m in width extending immediately within the security fencing	0.05	3
Mound of soil/sub-soil with ruderal plants	A moderate diversity of plants	0.03	2

The PEA confirms that no invasive non-native species were found on the Site, however, to prevent such plants and animals being brought onto or moving into the Site, it is recommended that standard biosecurity measures are implemented. For plants, standard biosecurity measures should be adopted to ensure that no seeds, rhizomes or other plant propagules are brought onto the Site. In the case of animals, the workforce should be vigilant given the potential for mammals to access the wider site. Were any such species to colonise the Site, they should be dealt with immediately.

The following opportunities, taken from the list of recommendations within the PEA, will be implemented to enhance the biodiversity of the Proposed Development.

- Creating moss patches/gardens;
- Planting a herb garden; and
- Providing habitat for Pied Wagtail to feed and nest.

Negative impacts from Site preparation and construction works will be managed according to BREEAM's mitigation hierarchy and in line with the ecologist's recommendations to ensure that no overall loss of ecological value will occur.

To secure ongoing monitoring, management and maintenance of the Site and its habitats and ecological features, and to ensure intended outcomes are realised for the long term, a landscape and ecology management plan will be developed, covering at least 5 years after project completion and including the following:

- Actions and responsibilities of relevant individuals prior to handover;
- The ecological value and condition of the Site at handover and how this is expected to develop and change over time;
- Identification of opportunities for ongoing alignment with activities beyond the development project, which support the aims of BREEAM's Strategic Ecology Framework;
- Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts; and
- Clearly defined and allocated roles and responsibilities for delivering the plan.

10. Pollution

10.1 Planning Policy and Guidance

The aims and proposals set out in this section are intended to address the following planning policies and standards:

- Welwyn Hatfield Local Plan (adopted April 2005): Policies R18 and R19;
- Welwyn Hatfield Draft Local Plan Proposed Submission (August 2016): Policies SADM 18;
- Welwyn Hatfield Sustainability Checklist: Minimisation of Pollution;
- Environmental assessments: 'BREEAM Very Good'

10.2 Aims and Proposals

Noise

A Noise Impact Assessment has been undertaken to assess the noise and vibration impacts associated with the Proposed Development during both construction and operational stages. A summary of this study is provided below.

Suitability of the Site for Office Development

An assessment of the suitability of the Proposed Development for office use has been undertaken based on the proposed usage of internal space and corresponding facades worst affected by noise. The assessment indicates that mitigation in the form of thermal glazing will be incorporated into the building envelope to provide suitable internal noise conditions.

Table 8 presents the desirable internal sound levels that should not be exceeded in new developments.

Table 8 Indoor ambient noise levels (BS 8233)

Space	Design Range (dB LAeq,T)
Staff / meeting room, training room.	35 - 40
Open-plan Office	45 - 50
Cafeteria	50 - 55

Table 9 details the measured sound levels at a monitoring location on the southwest section of the Proposed Development where office / cafeteria space is planned and the mitigation performance that is predicted to be required to meet internal noise level criteria. In addition, example glazing specifications are provided that may achieve the required internal noise levels.

Table 9 Example glazing configuration

Building Usage	Typical Daytime LAeq, 16hr dB	Recommendation Rw+Ctr Glazing Specification	Example of Most Onerous Required Glazing Specification
Open-plan Office	55	10	Standard thermal insulation 6mm-12mm-4mm
Cafeteria	55	5	Standard thermal insulation 6mm-12mm-4mm

Operational Noise Limits for Fixed Plant and Building Services

The assessment methodologies presented in BS 4142:2014+A1:2019 have been used to provide recommendations for operational noise limits applicable to fixed plant and building services of the Proposed Development.

Table 10 presents proposed operational noise limits for any fixed plant and building services associated with the Proposed Development, as experienced at nearby sensitive receptors.

Table 10 Proposed fixed plant and building services design criteria

Location	Rating level of operational noise LAr,Tr , dB	
	Day 07:00-23:00	Night 23:00-07:00
Receptors to south of Site along Tamblin Way	41	39

The Noise Impact Assessment confirms that the above rating levels can be relaxed by 5dB if the design and final selection of plant / equipment does not produce tonal noise or has other character.

Operational Changes in Road Traffic

The impact on traffic flows on existing roads in the area surrounding the Site once it is operational has been assessed. The magnitude of a noise impact due to changes in road traffic noise levels has been assessed with reference to criteria outlined in the Highways Agency's Design Manual for Roads and Bridges Sustainability & Environment Appraisal LA 111 Noise and Vibration (DMRB).

The Noise Impact Assessment confirms that it is forecast that the Proposed Development will increase HGV movements. The predicted increase in the number of HGV's is 10 dB below a worst-case scenario using the maximum capacity, and as such, it is deemed that the noise change will not cause changes to behaviour or response to noise and will not give a rise to a significant effect.

Construction

The Construction Logistics and Constraints Plan confirms that the works are to be carried out in a manner that shall minimise noise impact to as low a level as is practical. Works shall comply to the recommendations in BS 5228 Code of Practice for noise control on demolition and construction Sites. Liaison with local Site neighbours will take place on a regular basis to inform them of particularly disruptive upcoming works.

Light Pollution

The Institute of Lighting Professionals (ILP) has produced the 'Guidance Notes for the Reduction of Obtrusive Light (ILP, 2021) along with the 'SLL Code for Lighting 2012', which describes how to provide appropriate external lighting in different environmental zones. The ILP guidance notes have been used to develop the lighting strategy for the Proposed Development and the external lighting strategy complies with Table 2 of the ILP Guidance notes for the reduction of obtrusive light. This is in line with BREEAM credit, Pol 04 – Reduction of night-time light pollution.

All external lighting, with exception of safety and security lighting, will be designed with the ability to be automatically switched off between 23:00 and 07:00. Where safety or security lighting will be used between 23:00 and 07:00, this part of the lighting system will comply with the lower levels of lighting recommended during these hours in Table 2 of the ILP guidance notes.

Internally, within the Proposed Development, lighting shall be controlled according to the function of the area, with office, laboratory and warehouse having presence/absence detection to automatically switch off lighting when areas are not in use.

Air Pollution

Welwyn Hatfield's Draft Local Plan Policy SADM 18, states that an Air Quality Assessment is needed if the following applies to the Proposed Development:

- i. *Likely, due to the nature of the proposal, to give rise to significant air pollution;*

- ii. Within an Air Quality Management Area;*
- iii. Within 50 metres of a major road or heavily trafficked route;*
- iv. Within proximity to a source of air pollution which could present a significant risk to human health; and/or*
- v. Particularly sensitive to air pollution due to their nature, such as schools, health care establishments or housing for older people.*

It is deemed that the Proposed Development does not meet any of the above conditions, therefore an Air Quality Assessment is not deemed necessary.

11. Conclusions

Sustainable development principles have informed the design of the Proposed Development from the outset. The scheme incorporates measures that will contribute to social and economic sustainability, in addition to being environmentally responsible and resource efficient. The Sustainability Statement has assessed the Proposed Development against the standards set out in Hatfield Welwyn's adopted Local Plan and Draft Local Plan Proposed Submission documents. The key beneficial impacts of the scheme in relation to sustainability can be summarised as follows:

- Targeting a BREEAM New Construction 2018 'Very Good' rating.
- Provision of a development that is accessible to all, including the disabled, and promotes pedestrian and bicycle access.
- Promotion of active forms of travel to and from the Site via the provision of cycle spaces and showering facilities.
- Delivery of an energy strategy that follows the energy hierarchy.
- Use of a high standard of fabric and energy efficiency and the incorporation of low and zero carbon technologies in the form of chillers, which use air source heat pump technology, and photovoltaics.
- Development of a site with good public transport accessibility.
- Provision of electric vehicle charging points.
- Development of a site with a low risk of flooding from all sources and a Proposed Development that will not increase flood risk from the site.
- Incorporation of SuDS, in the form of permeable paving and a geo-cellular storage tank, as part of the drainage strategy.
- Delivery of a drainage strategy that will not increase surface water runoff from the site, including for a climate change allowance.
- Provision of water efficient sanitaryware, water metering and leak detection as well as reduced irrigation demands.
- Consideration of lean design principles to minimise quantities of materials used and the generation of construction waste.
- Preparation of a Resource Management Plan (RMP) to help track and achieve construction waste targets.
- Undertaking of a pre-demolition audit with the aim of maximising the recovery of material for subsequent high grade or value applications.
- Provision of adequate space for the segregation, storage, movement and collection of waste.
- Preparation of a Sustainable Procurement Plan and the responsible sourcing of construction materials.
- Development on a Site that has a low biodiversity value and the identification of opportunities to enhance the biodiversity.
- Identification of measures required to ensure suitable noise levels are achieved both internally and externally.
- Minimisation of light pollution by following industry good practice guidance.

The sustainability strategy described in this report sets out the proposed measures and commitments that have been and will continue to be incorporated into the design process and throughout the construction and operation of the Proposed Development. The objective is to optimise the building's environmental performance and deliver a scheme that can be constructed and operated in a sustainable way.

Appendix A BREEAM Pre-Assessment

The following pre-assessment details the targeted credits for the Proposed Development. The pre-assessment is based on a 'Fully fitted' scope under the 'BREEAM New Construction 2018 – Industrial' scheme. The following pre-assessment provides an indication of the credits that could be targeted by the Proposed Development to achieve the targeted 'Very Good' rating. The pre-assessment will continue to be updated as the design progresses.

Eisai – Fully fitted	Available Credits	Targeted Credits
MANAGEMENT		
Man 01 – Project brief and design	4	2
Man 02 – Lifecycle cost and service planning	4	1
Man 03 – Responsible construction practices	6	5
Man 04 – Commissioning and handover	4	3
Man 05 Aftercare	3	3
TOTAL MANAGEMENT CREDITS	21	15
TOTAL MANAGEMENT SCORE	11%	7.86%
HEALTH AND WELLBEING		
Hea 01 – Visual comfort	6	4
Hea 02 – Indoor Air Quality	4	0
Hea 04 Thermal Comfort	3	3
Hea 05 – Acoustic performance	3	2
Hea 06 – Security	1	0
Hea 07 – Safe and healthy surroundings	2	2
TOTAL HEALTH AND WELLBEING CREDITS	19	11
TOTAL HEALTH AND WELLBEING SCORE	14%	8.11%
ENERGY		
Ene 01 – Reduction of energy use and carbon emissions	13	4
Ene 02 – Energy Monitoring	2	2
Ene 03 – External lighting	1	1
Ene 04 – Low carbon design	3	0
Ene 05 – Energy Efficient Cold Storage	2	1
Ene 08 Energy Efficient Equipment	2	2
TOTAL ENERGY CREDITS	23	10
TOTAL ENERGY SCORE	16%	6.96%
TRANSPORT		
Tra 01 – Transport assessment and travel plan	2	2
Tra 02 – Sustainable transport measures	10	5
TOTAL TRANSPORT CREDITS	12	7
TOTAL TRANSPORT SCORE	10%	5.83%
WATER		
Wat 01 – Water consumption	5	3
Wat 02 – Water monitoring	1	1
Wat 03 – Water leak detection	2	2
Wat 04 – Water efficient equipment	1	1
TOTAL WATER CREDITS	9	7
TOTAL WATER SCORE	7%	5.44%
MATERIALS		

Mat 01 – Environmental impacts from construction products – Building life cycle assessment (LCA)	7	0
Mat 02 - Environmental impacts from construction products – Environmental Product Declarations (EPD)	1	1
Mat 03 – Responsible sourcing of construction products	4	2
Mat 05 – Designing for durability and resilience	1	1
Mat 06 – Material efficiency	1	0
TOTAL MATERIALS CREDITS	14	4
TOTAL MATERIALS SCORE	15%	4.29%
WASTE		
Wst 01 Construction waste management	5	2
Wst 02 – Use of recycled and sustainably sourced aggregates	1	0
Wst 03 – Operational waste	1	1
Wst 05 – Adaptation to climate change	1	0
Wst 06 – Design for disassembly and adaptability	2	0
TOTAL WASTE CREDITS	10	3
TOTAL WASTE SCORE	6%	1.80%
LAND USE AND ECOLOGY		
LE 01 Site selection	2	2
LE 02 Ecological risks and opportunities	2	2
LE 03 Managing impacts on ecology	3	3
LE 04 Ecological change and enhancement	5	3
LE 05 Long term ecology management and maintenance	2	2
TOTAL LAND USE AND ECOLOGY CREDITS	14	11
TOTAL LAND USE AND ECOLOGY SCORE	13%	10.21%
POLLUTION		
Pol 01 Impact of refrigerants	3	2
Pol 02 Local air quality	2	2
Pol 03 Flood and surface water management	5	4
Pol 04 Reduction of night time light pollution	1	1
Pol 05 Reduction of noise pollution	1	1
TOTAL POLLUTION CREDITS	12	10
TOTAL POLLUTION SCORE	8%	6.67%
INNOVATION		
Man 03 Responsible construction practices	1	1
Hea 01 Visual comfort	2	0
Hea 02 Indoor air quality – Minimising sources of air pollution	1	0
Hea 06 Security	1	0
Ene 01 Reduction of energy use and carbon emissions	5	0
Wat 01 Water consumption	1	0
Mat 01 Environmental impact from construction produced – Building life cycle assessment (LCA)	3	0
Mat 03 Responsible sourcing of construction products	1	0
Wst 01 Construction Site waste management	1	0
Wst 02 Use of recycled and sustainable sourced aggregates	1	0
Wst 05 Responding to Climate Change	1	0
LE 02 Ecological risks and opportunities	1	0
LE 04 Ecological change and enhancement	1	0

TOTAL INNOVATION CREDITS	20	1
TOTAL INNOVATION SCORE	10%	1.00%

