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SUSTAINABILITY
SUSTAINABILITY STATEMENT

REVISION C – 12 FEBRUARY 2021

Audit sheet.

Rev.	Date	Description of change / purpose of issue	Prepared	Reviewed	Authorised
A	08/02/2021	Draft for initial review and comment.	L. Martins	E. Jolly	
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The Application.

This Sustainability Statement has been prepared on behalf of Cassel Hotels (Cambridge) Ltd , hereafter referred to as the Applicant, in support of the full planning application for the proposed 80 bed Care home at Hotel Felix, Girton, hereafter referred to as the Proposed Development.

The Sustainability Statement for the Proposed Development has been prepared in response to the planning policy requirements of Greater Cambridge Sustainable Design and Construction Supplementary Planning Document and South Cambridgeshire Local Plan and makes reference to National Planning Policy and regulatory standards.

Sustainability strategy summary.

Table 1 provides a summary of how the Proposed Development has responded to adopted planning policy and guidance as part of the full planning application.

Table 1: Sustainability strategy summary.

Theme	Proposed Development response
Greater Cambridge sustainable design and construction SPD (adopted January 2020)	
	**Energy and carbon reduction** – The Proposed Development has produced an energy strategy which follows a fabric first approach in accordance with the Energy Hierarchy methodology. – The energy strategy demonstrates that a total saving of 10.4% in regulated carbon emission can be achieved over the Part L 2A baseline. – Air tightness of 3m^3/m^2/hr at 50Pa has been targeted over Part L 2A baseline of 10m^3/m^2/hr at 50Pa. Very efficient lighting has been specified throughout equating to 40% improvement compared to the Part L 2A notional building.
	**Water** – The Proposed Development will install low water consumption sanitary fittings and appliances throughout and achieve water reduction of 105.85 litres/person/day – A water meter will be installed on the mains water supply with a pulsed output to enable connection to a 'Building Management System' (BMS) for the monitoring of water consumption; – A mains water leak detection system will be installed, to reduce the volume of potable water which may be lost due to leaking sub-surface pipework.
	**Climate change adaptation** – The Proposed development relies on comfort cooling, where indoor environment can be managed and controlled. MVHR has been proposed with ventilation bypass, which improves thermal comfort in the summer period. – The Energy Strategy outlines different glazing g-values to avoid unnecessary solar gains. A lower g-value of 0.20 has been targeted in areas where overheating might occur. – An allowance of an additional 40% for climate change has been factored into calculations for sizing water storage based on 1 in 100 years storm event. –

Theme	Proposed Development response
	**Biodiversity** – A mitigation hierarchy (i.e. avoidance, mitigation, compensation, enhancement) for protecting the various habitats and species within the site has been followed in development of the landscape strategy. – Overall, there is an increase of 1.88 habitat biodiversity units, which results in a net gain of 74.49% for habitat units. – The landscape design approach reflects site-wide aspiration to establish a strong presence of nature and natural spaces within the development, exploiting the positive biophilic benefits that green space can offer. – The proposals include for a range of plant species which are native and/ or wildlife friendly, together with a selection of bird and bat boxes which will increase habitat value within the site and provide ecological enhancements.
	**Light pollution** – External lighting illumination levels will be based on CIBSE, SLL and ILP guidance to maximise safety and security, whilst maintaining a minimal impact on the site surroundings, environment and neighbouring properties. – The external lighting has been designed in order to enhance visibility to landscape and building whilst preventing lighting trespasses. – A lighting zoning strategy has been addressed to adequately illuminate each area, taking into consideration each lighting application. – LED has been specified for the external lighting to maximise energy efficiency and lifespan of fittings. – A lighting control strategy will ensure no external lighting is on unnecessarily during the night.
	**Noise** – An environmental sound survey was undertaken to establish the background and ambient sound levels in the surrounding area. – The site layout and building configuration has helped to achieve a good acoustic design. – The results of the survey have been used as the basis for setting plant noise limits and for determining the sound insulation requirements for the façade. – Considering potential impact to building users, the acoustic design utilises acoustic insulation and double glazed opening within the façade design to limit effects from external noise sources. – Building services will be designed to mitigate any unwanted noise.
	**Sustainable drainage systems and flood risk** - The location of the Proposed development is classified as Flood Zone 1 and therefore at low risk of flooding from rivers and/or the sea. - Under the NPPF Flood risk vulnerability classification, the Proposed Development is classified as "More Vulnerable" and therefore, due to Flood risk classification (Zone 1), the Proposed development is considered appropriate. - Management of surface water will be achieved through reuse existing drainage network connections. - The surface water system has been designed to accommodate 1 in 100 years storm event with an allowance for climate change.

Theme	Proposed Development response
	- Suitable and Potential drainage strategies have been identified and SuDS maintenance plan has been prepared for the Proposed Development, which should be reviewed after the first 5 years. - The water quality of surface runoff has been identified as "Very low" hazard level.
	Construction Standards – A 'Resource Management Plan' (RMP) will be produced to mitigate the volume of waste arising from demolition and construction activities and to ensure that waste will be sorted and stored effectively to allow materials to be reused and recycled on and/or offsite where possible. – The contractor will be required to follow considerate construction methods to ensure best practices are followed. – BREEAM certification is not required for the Proposed Development. However, the scheme will endeavour to incorporate good design and construction practices to ensure that environmental stewardship is demonstrated and achieved.
	**Construction waste and Recycling waste facilities** – Where possible, materials will be procured to achieve responsible sourcing. – Where appropriate, robust materials will be used to avoid replacement over the Proposed Development life cycle. – The Proposed Development has been developed to minimise waste generation. – Adequate storage will be provided on site to certify that the operational waste is sorted and collected effectively.
	Transport – The Site is in close proximity to bus stops, offering direct routes to Cambridge City Centre and surrounding areas – 22no. secure cycle storage spaces will be provided. – 31no. car parking spaces will be provided on site from which 3no. will have electric charging points.
	**Contaminated land** – The Proposed Development lies on previously developed land which was investigated by Solmek in 2020 through intrusive site investigation. As part of the site, investigation of the Site included five small percussive boreholes, installation of ground gas wells, three cable percussive boreholes and eight machines excavated trial pits. – The fieldwork and testing were carried out according to the recommendations of BS5930: 2015 "Code of Practice for Ground Investigations" and where applicable BS EN 1997-2:2007 with soil descriptions to BS EN 14688-1:2013 where applicable. The levels of contamination recorded are below the relevant thresholds for human health.
	**Heritage assets** – The Proposed Development consists of the demolition of an existing building which has some local community value, however it is important to note that existing Felix Hotel is considered low level of significance. – Building mass and scale have been designed to suit existing landscape context. – Early feasibility study has shown that demolition over refurbishment is more feasible due to the building life cycle, thermal comfort and low level of significance of existing building.

Theme	Proposed Development response
	**Health and Wellbeing** – The proposed Development goes beyond Part M of building regulations to ensure easy access and freedom of movement throughout the building and to the external areas, whilst providing surveillance for residents safety. – The Proposed Development has been designed to ensure good daylighting and views are achieved. – The design has ensured that occupants will not be subject to excess temperatures. – Low VOC products such as paints, adhesives to be procured in order to achieve best practices for interior finishes. – HAPPI principles have been embedded into the design to ensure generous integration between internal and external environment.

1. Introduction.

This Sustainability Statement has been prepared on behalf of Cassel Hotels (Cambridge) Ltd., hereafter referred to as the Applicant, in support of the full planning application for the proposed 80-bedroom Care home at Hotel Felix, Girton, hereafter referred to as the Proposed Development.

The Sustainability Statement for the Proposed Development has been prepared in response to the planning policy requirements of Cambridge Local Plan, Greater Cambridge Sustainable Design and Construction Supplementary Planning Document and South Cambridgeshire Local Plan and makes reference to National Planning Policy and regulatory standards.

1.1 The Proposed Development.

The Proposed Development will be situated on the northwest side of Whitehouse Lance, circa 2.8Km to the northwest of Cambridge City Centre. The new 80-bedroom care home will replace a 52-bedroom hotel, including a restaurant that is open to the public.

1.1.1 Site address

Whitehouse Lane, Huntingdon Road, Girton, Cambridge CB3 0LX

1.2 Policy context and drivers.

Relevant national and local policies

The applicable planning policies to the scheme with regards to sustainability are reviewed in Appendix B and include the following:

- National Planning Policy Framework
- Cambridge Local Plan 2018
- Supplementary Planning Documents / Guidance (SPD/G), in particular the Greater Cambridge Sustainable Design and Construction SPD 2020
- South Cambridge Local Plan 2018

Building Regulations Part L2013

Part L of the Building Regulations 2013, which covers the conservation of fuel and power, came into effect in October 2014. The Proposed Development has been assessed in accordance with the Building Regulations Part L2A 2013. Please refer to the Energy Strategy produced by Harniss Consulting for full detail.

Figure 1-Application Site boundary

2. Sustainability statement.

2.1 Approach to sustainability.

The Sustainability Statement within this section has been developed to provide a response to the Greater Cambridge Sustainable Design and Construction Supplementary Planning Document (adopted January 2020) and South Cambridgeshire Local Plan.

Responses to the Sustainable Design and Construction Checklist, specifically for South Cambridge policies, can be found in Appendix A.

2.2 Energy and carbon.

The following sections detail the passive design and energy efficiency measures that have been considered, and those that will be implemented at the Proposed Development.

Policy summary

Table 1 provides a summary of local policy requirements relating to energy and CO_2 emissions.

Table 1: Policy summary – Energy and carbon.

Policy reference	Target
Policy CC/3	– 10% on site renewable or low carbon energy for all new residential development and major non-residential development

Energy strategy overview

- An energy strategy has been developed for the Proposed Development which follows the energy hierarchy methodology, i.e. Be Lean, Be Clean and Be Green.
- The strategy has been developed with a 'fabric first' approach to reduce energy demand in the first instance via specification of high fabric efficiency and building services. Targeted performance parameters are better than the notional Part L building parameters
- The building is targeting an air permeability of $3m^3/m^2/hr$ at 50Pa, which helps to control ventilation losses, consequently a better energy efficient and comfortable environment.
- Thermal demand will be met by CHP which will to achieve further savings in regulated CO_2.
- A low and zero carbon (LZC) feasibility has been carried out within the Be Green section of the Energy Strategy report.
- The energy strategy demonstrates that a total saving of 10.4% in regulated carbon emission can be achieved over the Part L2013 gas boiler baseline.
- It has been agreed that BREEAM is not required for the Proposed Development. therefore, number of BREEAM ENE01 credits have not been considered.

Please refer to Energy Strategy report for full detail (ref: 1761-REP-ES-01 - Energy Strategy Report - Rev P1, Harniss Consulting, February 2021).

Energy efficiency – lighting

Considering the importance of efficient lighting in terms of reducing CO_2 emissions, the targets quoted in luminaire lumens per circuit Watt (lmlu/Wc) in Table are reduced from Part L thresholds.

Table 2: Commercial lighting targets.

Lighting	Lighting Efficacy Target (lm_c/W_c)	
	Part L2A Requirement	Proposed Development Target
General	60	100

As seen in the table above, the lighting efficacy targeted for general lighting at the Proposed Development shows as betterment of 40% compared to the Notional building.

The implementation of efficient lighting would not only reduce energy demand and CO_2 emissions associated with lighting, but would also aid in minimising the energy requirement associated with cooling due to reduced internal gains.

Please refer to Energy Strategy report for full detail (ref: 1761-REP-ES-01 - Energy Strategy Report - Rev P1, Harniss Consulting, February 2021).

2.3 Water.

The following sections detail the measures that have been considered, and those that will be implemented at the Proposed Development to reduce water demand on site.

Policy summary

Table 3 provides a summary of local policy requirements relating to water demand.

Table 3: Policy summary – Water.

Policy reference	Target
Policy CC/4	– All residential development should target 110 litres/person/day – All non-residential development should achieve minimum 2 BREEAM credits for Wat01

Water demand

- The Proposed Development consists of the provision of an 80-bedroom Care Homes. As such, for the purpose of this policy, the Proposed Development has provided as response as a residential development. Therefore, a maximum internal water consumption of 110 litres/person/day has been targeted.
- Part G calculations have been carried out by Harniss Consulting, which demonstrates an a total water consumption of 105.85 litres/person/day. can be achieved based on the targeted specifications.
- Water metering and submetering have been proposed for individual system usage such as domestic hot water process loads for kitchen and laundry with pulsed output capability to the BMS.

Please refer to the Water Management & Conservation Statement (1761-REP-WM-01 – Rev P1, Harniss Consulting, February 2021)

Leak detection

- The Proposed Development seeks to implement leak detection through the alarm of 'out of range' value being recorded.
- All water systems will be designed in compliance with relevant Code of Practice and industry/sector best practice guidance;

2.4 Climate change adaptation and resilience.

The following sections detail the measures that have been considered, and those that will be implemented at the Proposed Development to adaptable and resilient to potential hazards arising from climate change.

Policy summary

Table provides a summary of local policy requirements relating to climate change adaption and resilience.

Table 4: Policy summary – Climate change adaption and resilience.

Policy reference	Target
Policy CC/1	– All development should demonstrate embedded principles of climate change mitigation and adaptation into the development.

- The Proposed Development utilises traditional form and fabric to ensure resilience within the façade from potential impacts of climate change, e.g. increased rainfall, extreme temperatures in winter and summer months.
- The fabric performance and building services strategy has been developed with the intended building users in mind, i.e. human centric approach.
- The intended building users will comprise of the elderly with some cases of dementia. As such, the building design has been developed to ensure adequate thermal comfort can be maintained throughout the year to reduce potential health risks.
- MVHR (Mechanical Ventilation with Heat Recovery) has been specified with ventilation bypass, which improves thermal comfort in the summer period.
- Potential risk from increased temperatures in summer months have been mitigated further via the specification of comfort cooling in occupied areas.
- An allowance of 40% for climate change has been factored in calculations for sizing water storage based on 1 in 100 years storm event.

2.5 Biodiversity and land use.

The following sections detail the measures that have been considered, and those that will be implemented at the Proposed Development to protect and enhance biodiversity within proximity to the site.

Policy summary

Table provides a summary of local policy requirements relating to biodiversity and land use.

Table 5: Policy summary – Biodiversity and land use.

Policy reference	Target
Policies NH/4 and NH/5	– All development proposals should seek to conserve and enhance biodiversity

Biodiversity

A Phase 1 Habitat survey has been completed by Ecology Solutions in July 2020 in order to ascertain the general ecological value of the site and to identify the main habitats and associated plant species.

A Biodiversity metric 2.0 was used to capture importance of nature through calculations to assess the importance of each habitat based on its size, ecological condition, location and connectivity.

Amongst newly created habitat, the Ecological Net Gain report summaries the following:

- Urban – Amenity Grassland
- Grassland – Other Neutral Grassland
- Urban – Introduced Shrub
- Urban – Intensive Green Roof
- Urban – Ground Based Green Wall
- Urban – Street Tree
- Hedge Ornamental Non-Native
- Native Hedgerow
- Urban -Developed land; sealed surface.

Proposed landscaping will be based around native species that will improve the floristic diversity of the site, whilst also establishing varied green infrastructure through the site with the establishment of green roofs and walls, as well as native hedgerow and tree planting which will also provide enhancements to existing site.

The enhancements proposed will offer new opportunities for wildlife and provide gains in biodiversity and will be in accordance with the with the Ecological Net Gain report produced and national and local policies.

Please refer to:
Ecological Net Gain Report (9153.BNGreport.vf (complete), Ecology Solutions, February 2021) for further details
Landscape Proposal (LANDSCAPE-LUC_KYN-Hotel Felix_Landscape Proposals Planning)

Land use

The Landscape proposal reinforce the local green network whilst providing a safe, accessible places that offer amenity to residents.
The landscape proposals have been designed to maximise tree retention on site as well as further opportunities for amenities.

A landscape zoning concept has been set out to create a clear transition in character from the building interface to the site edge

2.6 Pollution.

The following sections details the measures that have been and will be adopted to reduce, mitigate or remove potential negative impacts of various forms of pollution.

Policy summary

Table 6 provides a summary of local policy requirements relating to impacts of pollution.

Table 6: Policy summary – Pollution.

Policy reference	Target
Policy SC/9	– All development proposals including external lighting or changes to existing lighting should reduce the potential impacts of that lighting in relation to energy efficiency and light pollution – All development proposals should limit lighting levels for public reasons of public safety, crime prevention/ security and living, working and recreational purposes – Light spillage and glare are minimised.
Policy SC/10	Development will be permitted where it is demonstrated that: – it will not lead to significant adverse effects and impacts, including cumulative effects and construction phase impacts wherever applicable, on health and quality of life/amenity from noise and vibration; and – adverse noise effects/impacts can be minimised by appropriate reduction and/or mitigation measures secured through the use of conditions or planning obligations, as appropriate (prevention through high quality acoustic design is preferable to mitigation).
Policy SC/11	– All major development and any development proposals on land subject to contamination or land that is suspected to be contaminated. Developers are responsible for ensuring that a proposed development will be safe and 'suitable for use' for the purposes for which it is intended.
Policy SC/12 and SC/13	– Development must ensure that it does not adversely impact on air quality or expose sensitive users to poor air quality and does not lead to significant adverse effects on health, amenity and the environment from polluting or malodorous emissions, or dust or smoke emission to air.
Policy SC/14	– Development likely to generate malodours and emissions to air such as dust, fumes, smoke, heat, radiation, gases, steam or other forms of pollution will only be permitted where it can be demonstrated that it will have no significant adverse effect on: a – Health b- The amenity of existing or proposed sensitive end users; c – The wider environment.

	Light pollution – External lighting illumination levels will be based on CIBSE, SLL and ILP guidance to maximise safety and security, whilst maintaining a minimal impact on the site surroundings, environment and neighbouring properties. – All lighting will be focused around the central landscape and leave the site boundaries in darkness with the exception of a few low level back of house way finding lights. – The majority of lighting will be directed downwards and up lighting and spotlights will be kept to a minimum and will have cowls/shields to prevent glare. – The Lighting strategy has been zoned according to sensitive areas of the development. – LED has been specified for the external lighting to maximise energy efficiency and lifespan of fittings. – A lighting control strategy will be developed to ensure no lighting is on unnecessarily during the night. – The lighting scheme has been designed to meet the SPD principles on light pollution. The lighting proposal document details how the lighting scheme meets the guidelines. Making reference to energy efficiency, sky glow, glare and light trespass Please refer to the Exterior & Landscape Lighting Concept (LIGHTING-PRSM-2349_CB01-A-Landscape Lighting Concept_20210205)
	Contaminated land – The Site lies on previously developed land which was investigated by Solmek in 2020 desk through intrusive site investigation. As part of the site, investigation of the Site included five small percussive boreholes, installation of ground gas wells, three cable percussive boreholes and eight machines excavated trial pits. – The fieldwork and testing was generally carried out according to the recommendations of BS5930: 2015 “Code of Practice for Ground Investigations” and where applicable BS EN 1997-2:2007 with soil descriptions to BS EN 14688-1:2013 where applicable. – Based on the results of the site investigation (Phase 2) there was little evidence of contamination that would affect the development apart from delineating areas of localised PAH contamination. Please refer to Phase 2 Investigation (SI Report Felix Hotel Proposed Care Home, January 2021)
	Noise – An noise impact assessment has been undertaken at the site to establish the background and ambient sound levels in the surrounding area. – The site layout, including car parking position and building entrance location, has been developed to enhance acoustic design. – The communal amenity courtyard, enclosed by the building, achieve good sound levels due to screening effect of the building. – External noise will be minimised by the building fabric and standard double-glazed windows and with standard through-frame trickle ventilators. – The environmental sound survey provides guidance on external plant noise levels, which will be followed during detailed design to ensure potential impact from noise is mitigated or removed. – Building services will be designed to achieve required levels of noise for day and night time.
	– The ventilation and cooling plant will be located in plant rooms which are less sensitivity areas of the building – The catering kitchen ventilation system will be developed during further design stages Please refer to the Acoustic Assessment for proposed development of the former Hotel Felix, Cambridge (R1-06.01.21-Hotel Felix Acoustic Assessment-2019995-AJN_SM, January 2021) Please refer to the Ventilation Statement for Proposed Care Home (1761-REP-VS-01 – Ventilation Statement – Rev P1)
	Air quality – A vehicle trip generation assessment has been undertaken suggesting that the development would result in a reduction of vehicle movements. – The Proposed Development seeks to utilise Combined Heat and Power (CHP) plant which will provide all thermal demand. The CHP will be specified to be low NOx to limit impact on local air quality. Please refer to the detailed Transport Statement (2020-12-11 TS02 6185 Draft) and Travel Plan (2020-12-11-TP03 6185 Draft) for further details. Please refer to Energy Strategy report for full detail (ref: 1761-REP-ES-01 - Energy Strategy Report - Rev P1, Harniss Consulting, February 2021).

2.7 Sustainable urban drainage (SUDs) and flood risk.

The following sections summarises the sustainable urban drainage strategy and how it endeavours to protect the Proposed Development from potential flood risk.

Policy summary

Table provides a summary of local policy requirements relating to SUDs and flood risk.

Table 7: Policy summary – SUDS and Flood Risk.

Policy reference	Target
Policies CC/7, CC/8 and CC/9	– All scales of new development need to utilise SUDS in order to reduce the rate of discharge into watercourses and mitigate the risk of surface water flooding. – A Site-Specific Flood Risk Assessment is required: – For proposals of 1 ha or greater in Flood Zone 1 – For all proposals for new development (including minor development and change of use) in Flood Zones 2 and 3; or – In an area within Flood Zone 1 which has critical drainage problems; or – Where proposed development, or a change of use to a more vulnerable class, may be subject to other forms of flooding

Sustainable drainage systems and flood risk

- According to the flood risk map provided by the environment agency, the existing Site is located within Flood Zone 1 and therefore at low risk of flooding from rivers and/or the sea.
- Flood zone 1 is in line with the Proposed Development vulnerability, classified as “More Vulnerable” according to NPFF.
- Surface water on the site will reuse the same drainage network connection from the site to discharge the proposed surface water runoff.
- The surface water system will accommodate flows on-site up to and including the 1 in 100 years critical duration event with an allowance for climate change. A total storage capacity of up to 400m^3 will be provided with a flow control device.
- A SuDS assessment have identified suitable and potential strategies as per as table below:

Table 8 - Drainage Strategies Summary

Suitable SuDS strategy	Potential SuDS strategy
Pervious pavement on hard landscaped areas such as car park and courtyard.	Filter strip for use in the soft landscaped areas around the building and car park
Attenuation tank for surface water run-off	Bioretention for use in the soft landscaped areas around the building and car park

- An overview of SuDS maintenance is provided for each of suitable and potential SuDS strategies above listed, which will be reviewed in the first 5 years for ongoing maintenance.
- The water quality of surface runoff identified a “Very low” hazard level.
- The Proposed Development have the right to connect foul water flows to public sewer.

Please refer to the Drainage Strategy report (Drainage Strategy Report - Felix Hotel P1) for further details.

Construction waste and recycling waste facilities.

The following section summarises measures and practices which will be adopted to reduce waste arising and resource demand from material use as a result of the Proposed Development.

Policy summary

Table provides a summary of local policy requirements relating to waste management and material use.

Table 10: Policy summary – Construction Waste and recycling waste facilities.

Policy reference	Target
Policies CC/6 and HQ/1	– All new development should include measures to reduce construction waste and ensure that provision is made for storage capacity for waste, both internal and external.

Responsible sourcing

- Where possible, procurement of materials will be carried out to ensure responsible sourcing of materials is achieved
- All timber will be procured to be legally harvested and traded, e.g. FSC certified.

Construction waste

- A ‘Resource Management Plan’ (RMP) will be produced for the Proposed Development for each phase of construction to define measures for how to minimise the volume of waste arising from demolition and construction activities, which is sent to landfill.
- The RMP will provide detail on procedures and practices that will be enforced during the demolition and construction phases to divert waste from landfill.

Waste arising from demolition and landfill will be sorted and stored effectively to allow materials to be reused and recycled on and/or off site where possible.

Considerate construction

- The contractor will be required to follow considerate construction methods, both during demolition and construction, to ensure the following practices are followed:
  - Enhance the site appearance
  - Respect the local community
  - Protect the environment
  - Ensure on-site safety
  - Provide support to workers.

Material specification and use

- Materials will be specified to be robust for the intended use to reduce the need for replacement and repair during operation. Specifically, this consideration will relate to building function, wear and tear during operation and potential climate change impacts.
- Materials brought onto the site will be stored appropriately to reduce risk of damage.
- The Proposed Development design has been developed to enable construction can be carried out without the need for excessive waste, e.g. reduced cut and trim, standard angles, etc.

Operational waste

- Adequate storage has been provided for general waste, recycling and food waste that will arise during operation.
- The operational waste strategy has been developed to ensure accessibility to facilities staff and waste collection services to ensure waste is sorted, stored and collected effectively.

	– Consideration of how green and food waste can be used for ongoing landscaping maintenance will be reviewed during detailed design.
	BREEAM – The Proposed Development will not require to be certified under Building Research Establishment Environmental Assessment Method (BREEAM). – However, the Proposed Development will endeavour to incorporate good practice design and construction practices to ensure environmental stewardship is demonstrated and achieved.

2.8 Transport.

The following section summarises the features that have been included within the design of the Proposed Development to encourage sustainable modes of transport to and from the site.

Policy summary

There are no Policies specifically related to transport, however there are measures to meet sustainable transport objectives to support sustainable and low emission public transport and incentivise behavioural change towards great car sharing, increased bus and rail use, and improved cycling/ pedestrian infrastructure. Objectives are as follows:

- Reduce the need for travel by private car
- Prioritising walking and cycling
- Integrating new and existing pedestrian and cycle networks successfully
- Retaining and improving existing networks and ensuring these networks are in place prior to first occupation
- Developing an appropriate car parking and cycle parking strategy
- Ensuring both existing and proposed high quality sustainable transport links (both public transport and cycle paths/ bridleways) are not inhibited by the development
- Choosing the most sustainable location for sustainable modes (non-residential only)
- Using the sequential approach to ensure that non-residential development is located in areas easily accessible by sustainable mode.
- Ensuring accessibility for all
- Ensuring transport infrastructure minimises impact on wildlife, landscape and amenity
- Supporting the transition to low emission vehicles

	Transport overview The Proposed Development is readily accessible on foot and by cycle using existing footways and cycle routes. In addition, there are various frequent bus routes serving the site. Furthermore, the Transport Statement demonstrates that the Proposed Development will result in a reduction of vehicle movement compared to the existing site use. Please refer to the detailed Transport Statement (2020-12-11 TS02 6185 Draft) and Travel Plan (2020-12-11-TP03 6185 Draft) for further details.
	Public Transport The Proposed Development is accessible by various sustainable transport systems. A large number of bus stops are also available within 500 m of the Site, with frequent services to the City centre and surrounding areas. The Site has direct link to Cambridge city centre and Cambridge railway station which has local and national rail services.
	Walking and Accessibility A network of footways and footpaths from the Proposed Development provide pedestrian access the existing infrastructure on Whitehouse Lane, which connects to a wider footway network providing continuous pedestrian access throughout the local area including to Cambridge city centre. The wider footway is fitted with tactile paving and pedestrian crossing is clearly visible.
	Cyclist facilities The proposed development will provide a total of no. 22 secure and sheltered cycle spaces. The travel plan anticipated that 41% of trips will be carried by bicycle.

	Car Parking 31no. car parking spaces will be provided on site. There is one existing Tesla wall charger, which will be rained and relocated. In addition, the Proposed Development will have other 2no. electric charging points.

2.9 Heritage assets

The following section summarises the measures that have been considered and adopted within the design development to ensure that the Proposed Development safeguard the heritage significance whilst adopting vernacular architecture approach to the building design.

Policy summary

Table 1 provides a summary of local policy requirements relating to health and wellbeing of building users.

Table 11 Policy summary – Heritage assets and climate change.

Policy reference	Target
Policy NH/15	– Demonstrate that building's carbon footprint reduction through energy hierarchy and specify environmentally conscious materials.

	**Heritage assets**
	– The Proposed Development consists of the demolition of an existing building which has some local community value.
	– The building will be constructed by taking into consideration its context in relation to scale, massing into its surrounding landscape.
	– A review was carried out at early stages of design development to assess the viability of refurbishment over demolition. The following factors ultimately led to the decision to demolish:
	  – Lower regulated carbon emissions could be achieved with new construction
	  – Internal thermal comfort for vulnerable building users could be guaranteed with new construction
	  – The level of refurbishment required to achieve the same performance would make the project unviable.
	  – The existing structure would not be able to accommodate the number of bedrooms required.
	  – Felix Hotel is considered as low level of significance due to structural interventions over the time.
	
	Please refer to the Heritage Statement (210208 - Draft Felix Hotel Heritage Statement) for further details.
	Please refer to the Design and Access Statement (A-846-Design and Access Statement)

2.10 Health and wellbeing.

The following section summarises the measures that have been considered and adopted within the design development to ensure that the Proposed Development provides a healthy and comfortable environment for all building users.

Policy summary

Table provides a summary of local policy requirements relating to health and wellbeing of building users.

Table 12: Policy summary – Health and Wellbeing.

Policy reference	Target
Policy SC/2	– For proposals of 20 or more dwellings or 1,000m2 or more of new floorspace.

	Accessibility strategy - Building design and integration with the garden allow freedom of movement throughout the building and external areas. - Surveillance will be in place to control access to public space and avoid any hazards. - Disabled parking has been positioned strategically close to the building entrance; - Internal doors thresholds and unobstructed wheelchair access have been taken into consideration into the design for facilitating access to the residents
	Daylighting and view out - Window design and position on façade helps daylighting distribution on the back of the bedrooms - The proposals have been designed to a formal layout and seek to provide a visual focus to the scheme, viewed from both the ground and upper level of the building.
	Health and wellbeing – The design has ensured that the occupants will not be subject to excess temperatures. – The landscape provides sensory experience and contact with nature throughout the site. – The contractor will be required to plan for, monitor and minimise pollution arising from construction. – Low VOC materials to be procured for any exposed materials, interiors and finishes, where able. – HAPPI principles have been applied, which ensure generous integration between internal and external environment. Please refer to the Design and Access Statement (A-846-Design and Access Statement)

3. Conclusion.

This document has been produced to provide a response to the current adopted Planning Policies associated with the Proposed Development.

The following summarises the sustainability strategies for the Proposed Development.

Table 13: Sustainability strategy summary.

Theme	Proposed Development response
Greater Cambridge sustainable design and construction SPD (adopted January 2020)	
	**Energy and carbon reduction** – The Proposed Development has produced an energy strategy which follows a fabric first approach in accordance with the Energy Hierarchy methodology. – The energy strategy demonstrates that a total saving of 10.4% in regulated carbon emission can be achieved over the Part L 2A baseline. – Air tightness of 3m^3/m^2/hr at 50Pa has been targeted over Part L 2A baseline of 10m^3/m^2/hr at 50Pa. – Very efficient lighting has been specified throughout equating to 40% improvement compared to the Part L 2A notional building.
	**Water** – The Proposed Development will install low water consumption sanitary fittings and appliances throughout and achieve water reduction of 105.85 litres/person/day – A water meter will be installed on the mains water supply with a pulsed output to enable connection to a 'Building Management System' (BMS) for the monitoring of water consumption; – A mains water leak detection system will be installed, to reduce the volume of potable water which may be lost due to leaking sub-surface pipework.
	**Climate change adaptation** – The Proposed development relies on comfort cooling, where indoor environment can be managed and controlled. MVHR has been proposed with ventilation bypass, which improves thermal comfort in the summer period. – The Energy Strategy outlines different glazing g-values to avoid unnecessary solar gains. A lower g-value of 0.20 has been targeted in areas where overheating might occur. – An allowance of an additional 40% for climate change has been factored into calculations for sizing water storage based on 1 in 100 years storm event. –
	**Biodiversity** – A mitigation hierarchy (i.e. avoidance, mitigation, compensation, enhancement) for protecting the various habitats and species within the site has been followed in development of the landscape strategy. – Overall, there is an increase of 1.88 habitat biodiversity units, which results in a net gain of 74.49% for habitat units. – The landscape design approach reflects site-wide aspiration to establish a strong presence of nature and natural spaces within the development, exploiting the positive biophilic benefits that green space can offer. – The proposals include for a range of plant species which are native and/ or wildlife friendly, together with a selection of bird and bat boxes which will increase habitat value within the site and provide ecological enhancements.

Theme	Proposed Development response
	**Light pollution** – External lighting illumination levels will be based on CIBSE, SLL and ILP guidance to maximise safety and security, whilst maintaining a minimal impact on the site surroundings, environment and neighbouring properties. – The external lighting has been designed in order to enhance visibility to landscape and building whilst preventing lighting trespasses. – A lighting zoning strategy has been addressed to adequately illuminate each area, taking into consideration each lighting application. – LED has been specified for the external lighting to maximise energy efficiency and lifespan of fittings. – A lighting control strategy will ensure no external lighting is on unnecessarily during the night.
	**Noise** – An environmental sound survey was undertaken to establish the background and ambient sound levels in the surrounding area. – The site layout and building configuration has helped to achieve a good acoustic design. – The results of the survey have been used as the basis for setting plant noise limits and for determining the sound insulation requirements for the façade. – Considering potential impact to building users, the acoustic design utilises acoustic insulation and double glazed opening within the façade design to limit effects from external noise sources. – Building services will be designed to mitigate any unwanted noise.
	**Sustainable drainage systems and flood risk** - The location of the Proposed development is classified as Flood Zone 1 and therefore at low risk of flooding from rivers and/or the sea. - Under the NPPF Flood risk vulnerability classification, the Proposed Development is classified as "More Vulnerable" and therefore, due to Flood risk classification (Zone 1), the Proposed development is considered appropriate. - Management of surface water will be achieved through reuse existing drainage network connections. - The surface water system has been designed to accommodate 1 in 100 years storm event with an allowance for climate change. - Suitable and Potential drainage strategies have been identified and SuDS maintenance plan has been prepared for the Proposed Development, which should be reviewed after the first 5 years. - The water quality of surface runoff has been identified as "Very low" hazard level.
	Construction Standards – A 'Resource Management Plan' (RMP) will be produced to mitigate the volume of waste arising from demolition and construction activities and to ensure that waste will be sorted and stored effectively to allow materials to be reused and recycled on and/or offsite where possible. – The contractor will be required to follow considerate construction methods to ensure best practices are followed. – BREEAM certification is not required for the Proposed Development. However, the scheme will endeavour to incorporate good design and construction practices to ensure that environmental stewardship is demonstrated and achieved.

Theme	Proposed Development response
	**Construction waste and Recycling waste facilities** – Where possible, materials will be procured to achieve responsible sourcing. – Where appropriate, robust materials will be used to avoid replacement over the Proposed Development life cycle. – The Proposed Development has been developed to minimise waste generation. – Adequate storage will be provided on site to certify that the operational waste is sorted and collected effectively.
	Transport – The Site is in close proximity to bus stops, offering direct routes to Cambridge City Centre and surrounding areas – 22no. secure cycle storage spaces will be provided. – 31no. car parking spaces will be provided on site from which 3no. will have electric charging points.
	**Contaminated land** – The Proposed Development lies on previously developed land which was investigated by Solmek in 2020 through intrusive site investigation. As part of the site, investigation of the Site included five small percussive boreholes, installation of ground gas wells, three cable percussive boreholes and eight machines excavated trial pits. – The fieldwork and testing were carried out according to the recommendations of BS5930: 2015 “Code of Practice for Ground Investigations” and where applicable BS EN 1997-2:2007 with soil descriptions to BS EN 14688-1:2013 where applicable. The levels of contamination recorded are below the relevant thresholds for human health.
	**Heritage assets** – The Proposed Development consists of the demolition of an existing building which has some local community value, however it is important to note that existing Felix Hotel is considered low level of significance. – Building mass and scale have been designed to suit existing landscape context. – Early feasibility study has shown that demolition over refurbishment is more feasible due to the building life cycle, thermal comfort and low level of significance of existing building.
	**Health and Wellbeing** – The proposed Development goes beyond Part M of building regulations to ensure easy access and freedom of movement throughout the building and to the external areas, whilst providing surveillance for residents safety. – The Proposed Development has been designed to ensure good daylighting and views are achieved. – The design has ensured that occupants will not be subject to excess temperatures. – Low VOC products such as paints, adhesives to be procured in order to achieve best practices for interior finishes. HAPPI principles have been embedded into the design to ensure generous integration between internal and external environment.

4. Appendix A: South Cambridgeshire checklist.

Table 14: Sustainability checklist for applications in South Cambridgeshire.

Code	Checklist	Summary of approach
Transport – SPD Section 2		
T1	Have you demonstrated that the development is in the most suitable location for access by public transport, walking and cycling, reducing the need to travel by private car?	The Proposed Ddevelopment is in close proximity to public transport. Existing road infrastructure allows walking and cycling. In addition, secure cycle park spaces will be available within the site. Please refer to Bright Plan's Transport Assessment report for further detail.
T2	Have you demonstrated how the development proposals give priority for walking and cycling over cars, linking the development with the surrounding walking and cycling network including planned projects?	The Proposed Development provides a good surrounding walking and cycling infrastructure. In addition to this, n.22 cycle spaces are proposed within the site.
T3	Will the proposed walking and cycling provision be in place by first occupation of the development so that sustainable travel patterns can be established at an early stage?	The Proposed Development will utilise the existing access routes to cycle and pedestrian paths wherever possible. Additional measures to encourage sustainable travel, such as cycle storage, will be installed and available to building users prior to handover.
T4	Where car parking is provided, has provision been made for electric vehicle charging?	The Proposed Development will offer a total of 31 car parking spaces. Of which 2 spaces will be dedicated for electric vehicle charging
T5	Have any 'softer' measures been included, to encourage uptake of more sustainable modes of transport?	The following measures would be used to encourage employees to travel by sustainable modes: staff communal notice board detailing local and national transport information; promotion of cycling events; requiring each employer to investigate the Government's cycle scheme; promotion of car sharing;
T6	Does the development inhibit the expansion of high-quality public transport/cycling and walking routes?	The Proposed Development does not expand on the site boundary of the existing site. As such there will be no impact on the public transport, cycling or walking routes within proximity to the site.
Energy and carbon reduction – SPD Section 3.2		
En.1	Has the 10% CO_2 reduction required been established using SAP/SBEM calculations or other appropriate benchmarks?	An Energy Strategy has been produced by Harniss Consulting to support the submission. The strategy has been developed in accordance with the Energy Hierarchy methodology and therefore has incorporated a fabric first approach to the design. The Energy Strategy reports that a total reduction in regulated carbon emissions of 10.4% against the Part L2013 can be demonstrated for the Proposed Development.
En.2	Has the Energy Statement form been completed (see Appendix 5)?	Please refer to the Energy Strategy report produced by Harniss Consulting.
En.3	Has initial feasibility work into renewable options for the development been provided?	Within the Be Green stage of the hierarchy (refer to Section 7 of the Energy Strategy) a Low and Zero Carbon (LZC) technology feasibility study has been undertaken.
En.4	Has the contribution that passive solar design will make to the energy requirements of the development been provided (optional)?	An Energy Strategy has been produced by Harniss Consulting to support the submission. The strategy has been developed in accordance with the Energy Hierarchy methodology and therefore has incorporated a fabric first approach to the design. Within the Be Lean stage of the hierarchy (refer to Section 5 of the Energy Strategy), passive design measures have been implemented to ensure Part L compliance and improvement can be achieved before the consideration of LZC technologies.

Code	Checklist	Summary of approach
En.5	Has it been clearly indicated which technology(s) has been chosen and demonstrated how this/these meet the 10% CO_2 reduction requirement?	The Proposed Development has been designed to follow a fabric first approach by considering highly efficient building fabric and energy efficient systems and controls to reduce energy demand in the first instance. Space heating and hot water demand will be met via a central Combined Heat and Power (CHP) plant. Utilising low carbon technology in the form of CHP on this scheme achieved a reduction in CO_2 emissions of 10.4% from Be Clean to Be Green stage of the energy hierarchy.
En.6	Has visual information been provided to show the technology(s) has/have been successfully integrated into the development?	Space heating and hot water demand will be met via a central Combined Heat and Power (CHP) plant. The plant will be located within the Ground Floor plantroom which can be seen in the architectural plans for the Proposed Development.
En.7	Have you demonstrated how any adverse impacts on residential amenity (e.g. air quality impacts or noise) can be mitigated in accordance with Section 3.5 of this SPD? Where gas CHP is proposed, evidence will need to be provided to demonstrate that it meets the emissions standards set out in Appendix 3 of this SPD.	Space heating and hot water demand will be met via a central Combined Heat and Power (CHP) plant. The CHP will be specified to meet the standards set out in Appendix 3 of the SPD document.
En.8	For large scale development likely to take place over a number of years, have you taken into consideration Government proposals to stop new housing from having gas boilers from 2025?	Not applicable.
En.9	For growth areas and new settlements, has consideration been given to site-wide approaches to renewable and low carbon energy provision?	Not applicable.
Water efficiency – SPD Section 3.3		
Wat.1	For residential development have you prepared a Sustainability Statement setting out how your proposal will meet the requirement for potable water use of no more than 110 litres/person/day?	Although not a traditional residential development, as water demand is anticipated to be a large proportion of the total resource demand associated with operation, water use calculations (in accordance with Part G methodology) have been carried out to ensure the target of 110 litres/person/day can be achieved. Refer to the Water Statement produced by Harniss Consulting which shows a usage of 105.83 litres/person/day. Statement to be provided
Wat.2	For non-residential development have you included information to demonstrate that your proposal will be able to meet the requirement for achievement of 2 credits from Wat01 of the BREEAM assessment?	The Proposed Development is not required to be certified under BREEAM NC2018. However, as water demand is anticipated to be a large proportion of the total resource demand associated with operation, water use calculations (in accordance with Part G methodology) have been carried out to ensure the target of 110 litres/person/day can be achieved. This has been carried out as an alternative approach to WAT01 due to the intended building use profile. Refer to the Water Statement produced by Harniss Consulting which shows a usage of 105.83 litres/person/day. Statement to be provided
Wat.3	Have you given consideration to water re-use as part of the sustainable drainage strategy for the site as part of an integrated approach to water management?	Reuse of grey water and rainwater was considered at early stages of design. However, following detailed review, the quality of water and mitigation of potential health risks to residents could not be confirmed. Therefore, utilisation of water reuse measures as part of the Proposed Development was considered unsuitable. Please refer to the Drainage Strategy report (Drainage Strategy Report - Felix Hotel P1) for further details.
Climate change adaptation – SPD Section 3.4		
Ca.1	Have you integrated measures to design out the risk of overheating, giving priority to architectural approaches in line with the cooling hierarchy?	As part of the Part L analysis to support the Energy Strategy, a criterion 3 (limiting excessive solar gains) check was completed for the occupied areas of the Proposed Development. Building form (including orientation, glazing to floor ratio and fabric efficiency) has been developed to ensure that a balance of daylight provision and thermal comfort can be achieved for residents and other building users. A hybrid approach to ventilation in the form of natural ventilation from openable windows and mechanical ventilation has been developed to ensure sufficient air exchange is achieved both automatically via the system controls as well as manually for the building users to achieve their desired comfort.

Code	Checklist	Summary of approach
		Finally, comfort cooling will be provided to ensure comfortable indoor temperatures can be achieved during the summer months for the residents.
Ca.2	Have you undertaken overheating analysis following the CIBSE methodology and utilising future climate scenarios?	Computational analysis has not been undertaken at this stage of design. the provision of comfort cooling ensures that risk of overheating for the vulnerable residents can be mitigated. In addition, MVHR will be combined with ventilation bypass, which promotes additional thermal comfort. It is not proposed to undertake computational analysis for future climate change scenarios at this stage of design on the basis that thermal comfort shall be ensured with the provision of comfort cooling ensures resident communal dayrooms.
Ca.3	Have you considered the role of green infrastructure and cool materials in enhancing the adaptive capacity of your proposal?	Building form (including orientation, glazing to floor ratio and fabric efficiency) has been developed to ensure that a balance of daylight provision and thermal comfort can be achieved for residents and other building users. From the planning process it has been necessary to design in a “traditional” pallet of materials, load bearing masonry construction rendered in keeping with the original building.
Ca.4	Where there are existing trees on your site, including ancient and veteran trees, how has the retention of these trees informed the layout of your development?	A number of trees are present on the existing site. Following the tree survey completed by Haydens, trees of importance will be retained and protected during construction. Where trees will be removed at part of the proposed works, new trees will be planted. There are no ancient and veteran trees within the development. Please refer to the Landscape Strategy produced by LUC for further detail.
Ca.5	How have you integrated the planting of new trees into your proposals, giving consideration to the right tree in the right place principle?	The landscape report and plans include specification according to zoning, material and planting palette. A number of trees are present on the site. Following the tree survey completed by Haydens, trees of importance will be retained and protected during construction. Where trees will be removed at part of the proposed works, new trees will be planted. Please refer to the Landscape Strategy produced by LUC for further detail
Ca.6	What other measures have been incorporated into the development to enable it to cope with predicted climate change impacts, without increasing the use energy consuming ventilation and cooling?	The Energy Strategy confirms different glazing g-value considerations for different orientations due to potential excessive heat gain. The building glazing has been specified with g-value of 0.50 for the majority of areas. However, for critical exposed areas glazing, a g-value of 0.2 has been targeted. In addition, MVHR with ventilation bypass has been proposed. The building elevations illustrate careful consideration between solid and transparent elements in order to avoid excessive heat gains from sunlight.
Ca.7	Where you are proposing to utilise thermal mass to help regulate internal temperatures, has this thermal mass been designed to be exposed and have you developed a strategy to enable night purge ventilation?	From the planning process it has been necessary to design in a “traditional” pallet of materials, load bearing masonry construction rendered in keeping with the original building. As such, construction methods such as curtain walling has been limited to ensure benefits from thermal mass can be achieved.
Biodiversity and geodiversity – SPD Section 3.5		
Bio.1	Has a Preliminary Ecological Assessment and Protected Species Scoping Survey been conducted, with sufficient detail given the nature and size of the site and the proposed development?	A phase 1 habitat survey was carried out by Ecology Solutions in July 2020 in order to ascertain the general ecological value of the site and to identify the main habitats and associated plant species located within. A desk-based study was also undertaken to inform this assessment. Obvious faunal activity, such as birds or mammals observed visually or by call during the course of the surveys, was recorded. Specific attention was paid to any potential use of the site by protected species, priority species (formerly Biodiversity Action Plan (BAP) species), or other notable species; specific surveys were completed for badgers and bats. Please refer to Phase 1 Habitat Survey Report for full detail.
Bio.2	If a protected or priority species and/or habitats have been identified, has a specialist been engaged to conduct a detailed survey? https://events.cieem.net/ProfessionalDirectory/Professional-Directory.aspx	An internal and external assessment of the buildings was undertaken to ascertain their potential to support roosting bats. Subsequently a series of bat emergence and re-entry surveys was completed. Survey work was led by a Natural England bat licence holder.

Code	Checklist	Summary of approach
		Please refer to Phase 1 Habitat Survey Report for full detail.
Bio.3	Has/will all the relevant information from these surveys been provided?	The information pertaining to the original Phase 1 Habitat Survey, internal and external surveys of the buildings within the site and the results of the two dusk emergence surveys and single dawn re-entry survey are included within the Ecological Assessment.
Bio.4	Has the mitigation hierarchy been followed, demonstrating how existing habitats and species have been protected in the proposed ecological and landscape strategy? http://www.csbi.org.uk/our-work/mitigation-hierarchy-guide/	An Ecological Assessment has been produced by Ecology Solutions to support the submission. The assessment includes recommendations based upon the mitigation hierarchy (i.e. avoidance, mitigation, compensation, enhancement), for protecting the various habitats and species within the site. These measures have been adopted as part of the Landscape Proposals.
Bio.5	Has the mitigation hierarchy been followed, demonstrating how any potentially adverse effects have been mitigated?	The Ecological Assessment includes recommendations based upon the mitigation hierarchy for mitigating any potentially adverse effects. Such effects will be fully mitigated as part of the scheme.
Bio.6	Has the mitigation hierarchy been followed, demonstrating that adequate compensation measures have been proposed on or offsite, where it is agreed that damage is unavoidable?	The Ecological Assessment has shown that potential adverse effects of the scheme are very limited, with all necessary measures being delivered within the site, such that there is a significant net gain for biodiversity.
Bio.7	Has it been demonstrated that the proposals will deliver biodiversity net gain, with use of the DEFRA Biodiversity Offsetting metric?	A Biological Net Gain Report has been calculated by Ecology Solutions to support the submission. When assessed against the Biodiversity Metric version 2.0, the report shows that the site delivers an overall net habitat gain of 74.49% and a net hedgerow gain of 38.72%.
Bio.8	For major development, has the Natural Cambridgeshire Local Nature Partnership (LNP) Developing with Nature Toolkit been adopted?	The Proposed Development does not fall within the definition of a major development. Nevertheless, the current proposals include the planting of 1km of hedgerows, the seeding of 0.43ha of wildflower meadow, the establishment of fruit trees as a small orchard and the provision of bat, bird and invertebrate boxes, all of which are encouraged by the Developing with Nature Toolkit.
Bio.9	Has a suitable biodiversity management and monitoring strategy for the site been proposed?	The site will be subject to a suitable management regime, as detailed in the landscape strategy. Where features such as bat and bird boxes are to be installed, these will be checked on an annual basis and replaced in the event of failure.
Bio.10	For development likely to affect a European site, what information have you provided to enable the local planning authority, as Competent Authority under the provisions of the Conservation of Habitats and Species Regulations 2017 (as amended) to record its decision with regard to likely significant effect, including undertaking Appropriate Assessment where necessary?	The proposed development is not likely to have a significant adverse effect on a European site.
Pollution – SPD Section 3.6		
Light pollution		
Pol.1	For all development with artificial lighting has a statement of the need for lighting been submitted and have the principles of an external lighting strategy that meets the requirements of the local plan policy/SPD been set out?	An external & landscape lighting concept addresses and local plan policy to conserve and enhance biodiversity. Please refer to the exterior lighting proposal which features an assessment of the requirement for lighting on the site. It also shows indicative lighting layout alongside a lighting control strategy. The lighting scheme has been designed to meet all required of the local planning policies.
Pol.2	Will the final detailed external lighting design / scheme be in accordance with the guidance and principles set out in the light pollution section of the SPD?	The lighting scheme has been designed to meet the SPD principles on light pollution. The lighting proposal document details how the lighting scheme meets the guidelines. Making reference to energy efficiency, sky glow, glare and light trespass
Pol.3	Has the development taken measures to reduce light pollution impacts on character, residential amenity and biodiversity?	The lighting has been designed to reduce the impact light pollution on the residential amenity by using downwards directed light, sensitive positioning of light fittings (away from site boundaries) and the omission of any unnecessary upwards lighting or flood lighting.

Code	Checklist	Summary of approach
		Ecological reports produced for the Proposed Development have been used to establish the lighting strategy which consists of lighting being focused around the walkways and garden areas directly adjacent to the building. Leaving the site boundaries as a dark perimeter for ecological habitats, unimpaired by artificial light.
Pol.4	For substantive large-scale lighting installations such as the floodlighting of external recreational and sporting facilities/pitches or transport interchanges has a detailed lighting assessment been undertaken by a qualified Lighting Engineer or lighting company in accordance with Section 3.6.24 of the SPD?	The Proposed Development has no large-scale lighting installation or flood lighting associated. Therefore, response is not required.
Pol.5	For Environmental Impact Assessment (EIA) development has a lighting impact assessment been undertaken having regard to and in accordance with the Institute of Lighting Professionals 'PLG04 - Guidance on Undertaking Environmental Lighting Impact Assessments'?	The Proposed Development does not require an EIA to be produced. Therefore, response is not required.
Pol.6	For any proposal for the display of illuminated advertisements has the relevant information been provided?	The Proposed Development has no display of illuminated advertisements associated. Therefore, response is not required.
Contaminated land		
Pol.7	Is the development site's land use history known? Is the site potentially affected by land contamination (including ground water contamination) that could result in unacceptable risks e.g. a previous potentially contaminative industrial or similar use on site or ground gases? If yes, as a minimum, has a land contamination desk top study with risk assessment and site walk-over been undertaken and included with the application?	The existing site consist of a 52-bed hotel with associated landscaping. A contaminated land assessment has been carried out for the Proposed Development. Based on the results of the site investigation (Phase 2) there was little evidence of contamination that would affect the development apart from delineating areas of localised PAH contamination. Any additional soft landscaped areas proposed would require a suitable growing medium sourced from the topsoil already present on the site excluding the area around TP3 where PAH was detected in the topsoil. Construction workers should wear appropriate PPE and copper/PE water pipes are not suitable for use.
Noise pollution		
Pol.8	For major Noise Sensitive Development (NSD) located in a noisy environment or near to a specific existing noise generating source e.g. near to a busy road, railway line, noisy commercial/industrial premises including building services plant/equipment has an appropriate acoustic assessment /report been undertaken in accordance with the noise assessment process and submission requirements set out in the noise section of the SPD?	An Acoustic Report has been produced for the Proposed Development. The acoustic report concludes that external existing noise generated by nearby traffic is slightly higher than the guideline range recommended by BS 8233:2014, however it is not unacceptable considering proximity to the surrounding strategic highway routes.
Pol.9	For Noise Generating Development (NGD) such as industrial commercial/trade or business premises and uses including plant and equipment has an appropriate acoustic assessment/report been undertaken in accordance with the noise assessment process and submission requirements set out in the noise section of the SPD?	The Proposed Development is not considered an NGD. Therefore, response is not required.
Pol.10	Has an 'Acoustic Design Statement' been included demonstrating that the principles of good acoustic design and noise mitigation will be followed for both NSD and NGD?	The Acoustic report includes NGDs and NSDs in line with NPPF and summarises external generated noise from road traffic. Potential impact from external noise sources on building users will be mitigated using the building envelope. In addition, the site layout and car parking position have been developed to minimise adverse impact on building users.
Pol.11	Has the development taken measures to reduce existing noise and enhance the existing soundscape of the site?	The most sensitive rooms (bedrooms) are located away from the propose car park and main entrance, separated by non-residential space, such as communal spaces, offices, kitchen and foyer. The acoustic report confirms that the position of the proposed building will screen noise from car park in the resident's gardens.

Code	Checklist	Summary of approach
		Please refer to the Acoustic Report for full detail.
Pol.12	For all development has the impact of demolition construction noise/vibration been assessed and mitigation proposed?	A Construction Management Plan (CMP) will be developed by the contractor once appointed. The CMP will be developed to consider measures to minimise and mitigate potential noise and vibration impacts from demolition and construction works.
Pol.13	For substantial development or infrastructure projects has a Noise and Vibration Demolition and Construction Environmental Management Plan been provided?	The Proposed Development does not fall within the definition of a substantial or infrastructure development, therefore response is not required.
Pol.14	If the proposals are likely to generate a significant amount of traffic (defined as road traffic movements greater than 5% of Annual Average Daily Traffic) has a noise impact assessment of any increase in local traffic noise been undertaken?	As reported in the Transport Assessment, the Proposed Development is anticipated to result in a reduction of traffic compared to the existing site. Therefore, a noise impact assessment is not required.
Air quality		
Pol.15	Air Quality: How have you incorporated practical measures to mitigate the transport impacts of development on local air quality into the development (i.e. Low Emission Strategy for major developments)?	The results of the transport assessment, carried out by Bright Plan, demonstrates that the Proposed Development will result in less transport movement compared to the existing patterns. As such, the Proposed Development will have a positive impact on air quality resulting from transport impacts.
Pol.16	Have you undertaken an air quality impact assessment if the development is in particularly congested location or where there are particular travel problems, if generating large number of trips, if near or within the Air Quality Management Area?	The Proposed Development is not located within a highly congested area. The results of the transport assessment, carried out by Bright Plan, demonstrates that the Proposed Development will result in less transport movement compared to the existing patterns. As such, the Proposed Development will have a positive impact on air quality resulting from transport impacts.
Odour and other fugitive emissions		
Pol.17	For all industrial, commercial or business uses that generate odours or if substantial ventilation or extraction equipment is proposed has an overarching outline ventilation statement/strategy been provided?	The Proposed Development does not consist of the provision of industrial, commercial or business uses. However, the ventilation statement addresses odour by setting up appropriate locations for kitchen canopy and kitchen extracts. In addition, the extract system will be designed to remove 85% of the air volume and so to ensure the room operates under negative pressure.
Pol.18	For low to medium odour risk generating developments such as hot food premises/commercial kitchens has an appropriate odour risk assessment been undertaken including the provision of the information requested in paragraphs 3.6.193 – 3.6.196 of the SPD?	The kitchens which will cater the residents will be fitted with commercial supply and extract ventilation systems in line with the requirements of DW/172, ensuring that the low risk of kitchen odours of this building are efficiently diluted. In addition to this a ventilation strategy statement has been produced by Harniss Consulting which outlines the overall ventilation strategies of the building.
Pol.19	For higher risk odour generating uses, such as a new sewage treatment works or when odour sensitive uses are proposed near such uses, has a detailed odour assessment been undertaken in accordance with the Institute of Air Quality Management document 'Guidance on the assessment of odour for planning (IAQM, Version 1.1 - July 2018)'?	Not applicable
Sustainable drainage systems – Refer to the Cambridgeshire Flood and Water SPD		
SuDS. 1	Have you completed the pre-application Checklist (Appendix E) and Surface Water Drainage Pro-forma (Appendix F) of the Cambridgeshire Flood and Water SPD	Surface Water drainage calculations have been carried out. This is part of Appendix E of the Drainage Strategy report.
Sustainable show homes – SPD Section 3.9		
SuSh. 1	For residential developments that will include a show home, have you given consideration to the range of measures that will be incorporated	No show rooms are included within the scope of the Proposed Development.

Code	Checklist	Summary of approach
	into the Show Home to enable home buyers to purchase additional options to enhance the environmental performance of their new home?	
Heritage assets and climate change – SPD Section 3.10		
Ha.1	Where works to a heritage asset to address climate change are proposed, have you undertaken studies to ensure that your proposals are based on a thorough understanding of the building's historic evolution and construction (where these matters relate to the heritage significance of the asset), architectural and historic significance?	The Proposed Development consists of the demolition of an existing building which has local community value but is not considered a heritage asset. A
Ha.2	Have you undertaken an assessment of the building's existing environmental performance, and how have your proposals been informed by this work?	The Proposed Development consists of the demolition of an existing building which has local community value but is not considered a heritage asset. A Heritage Report has been produced by Bidwells. Please refer to the Heritage Statement (210208 - Draft Felix Hotel Heritage Statement) for further details. A review was undertaken by the design team to assess the viability of refurbishment vs. demolition of the existing building. ultimately, considering the current state of the existing building, it was determined that a refurbishment would require significant improvements to ensure the same level of reduced operational emissions, thermal comfort for building users, and protection of building users and materials from climate change impact. As such, demolition and new build is proposed.
Ha.3	Have you developed a building monitoring and management strategy in order to assess the ongoing impact of the implemented measures on the asset's historic fabric?	The Proposed Development consists of demolition and new construction; therefore, this measure is not required.
Ha.4	How have you factored in the potential for remediation works should ongoing monitoring identify that measures are leading to harm to the heritage asset?	The Proposed Development consists of demolition and new construction; therefore, this measure is not required.
Recycling and waste facilities – SPD Section 3.1		
Wr.1	Has the size and location of recycling and waste facilities, both for storage and collection, been factored into the design of the proposals using the requirements set out in the RECAP Waste Management Design Guide SPD and associated Toolkit?	A dedicated space for the segregation and storage of operational recyclable waste volumes generated by the assessed building, its occupants and activities will be provided in accordance with the following: – Clearly labelled, to assist with segregation, storage and collection of the recyclable waste streams; – Accessible to facilities operators for the deposit of materials and collections by waste management contractors; – Of a capacity appropriate to building type, size and predicted volumes of waste that will arise from daily/ weekly operational activities and occupancy rates (at least 2m^2 per 1,000m^2 of net floor area). GIFA 4,655 m^2 equalling a requirement of 10 m^2 the current provision is for 25 m^2
Wr.2	Has it been shown that the average and maximum distances for building users to move their waste to the storage/collection points is within the guidelines set out in the relevant guidance? If these targets are exceeded, have justification and mitigation measures been proposed?	The Proposed Development has followed the industry guidance outlined in BREEAM New Construction 2018 Wst03 to develop the operational waste strategy. As such, the maximum horizontal distance from waste generation source (e.g. bedroom) to store is <20m.
Wr.3	Have measures been put in place to: – Reduce the amount of construction waste generated by the proposals, including the use of single-use plastics where alternative options exist; and – Re-use and recycle remaining construction waste	A Construction Management Plan (CMP) will be developed by the contractor once appointed. The CMP will be developed to outline measures and procedures to be enforced during demolition and construction to reduce waste arising in the first instance, reuse and recycle on/off site where possible and ultimately divert waste from landfill.
Other sustainability considerations – SPD Section 4		

Code	Checklist	Summary of approach
Osc.1	Has a target been set for improving the environmental impact of materials used in constructing the development, with consideration given to the embodied carbon of materials? Non-residential schemes should refer to the BREEAM assessment. Residential schemes should give consideration to use of the Green Guide to Specification, certification schemes for specific materials with further information available at: http://www.greenbooklive.com/	Full specification of materials has not yet been considered other than the traditional masonry approach to the façade mentioned in Ca.3. Specification of internal finished will be carefully considered by the interior designer with regard to sustainable procurement and responsible sourcing.
Osc.2	Has consideration been given to providing food growing opportunities as part of the development, in the form of a private amenity space of the appropriate size and aspect? Have long term management and maintenance arrangements been considered in the design of these spaces?	Due to the intended building user' profile and limitations, food growing opportunities are not suitable for the Proposed Development. However, amenity provisions for residents such as courtyard and sensory gardens have been included on Landscape plan. Please refer to the Landscape strategy for further detail.
Osc.3	Have measures been integrated into the design to create healthy indoor environments, given consideration to issues such as daylight, ventilation and humidity control and the use of materials with low toxicity?	Provision of a healthy internal environment for building users is at the forefront of the aspirations of the client and as such a high level of fresh air is proposed to all occupied areas of the Proposed Development via the specification of high efficiency heat recovery units positioned around the building. The windows height and position have been designed to enhance daylight access and distribution including to the back of bedrooms. Low VOC materials to be procured for any exposed materials, interiors and finishes, where possible.
Osc.4	For non-residential development, has consideration been given to creating a healthy indoor working environment, giving consideration to elements such as biophilic design?	Due to the nature of the Proposed development, consistubg of the construction of an 80-bed care home, working areas relate only to staff rooms/offices which make up a small proportion of the building and will be intermittently used. However, all staff areas have been developed in accordance with all other occupied spaces of the Proposed Development (i.e. thermal comfort, biophilia, etc.) to ensure all building users, not just residents, have access to healthy indoor environments.
Osc.5	Has consideration been given to the role of smart technologies in the design of your proposals, giving consideration to the role that such technologies could play in both the construction and operational phases of the development?	The building shall be provided with an intelligent Building Management System to control the building services plant and equipment as well as ensure internal space conditions are maintained. The building also benefits from high specification of Audio/Visual, Data, Nurse Call, Access Control, CCTV and alarm systems.
Osc.6	For new settlements covered by policies within Chapter 3 of the Local Plan, how do you plan to meet policy requirements to exceed baseline sustainable design and construction requirements established by the Local Plan? This could include the use of the BREEAM Communities certification scheme in light of the supporting text to policy CC/1	Not applicable
Osc.7	Have you considered measures to enable residents/building owners to more easily retrofit their property in the future e.g. low temperature heating systems or 'stage 1 fit' pipework for rainwater harvesting?	Not applicable

5. Appendix B: Policy context.

5.1 National.

Approved Document Part L
Part L of the Building Regulations is the mechanism by which government is driving reductions in the regulated CO_2 emissions from new buildings.

Current requirements: Part L2013
Part L has five key criteria which must be satisfied as follows:

a. Criterion 1 - Achieving the Target Emission Rate (TER)
b. Criterion 2 - Limits on design flexibility
c. Criterion 3 - Limiting the effects of solar gains in summer
d. Criterion 4 - Building performance consistent with the Building Emission Rate (BER)
e. Criterion 5 - Provision for energy efficient operation of the building

Criterion one requires that the building as designed is not predicted to generate CO_2 emissions in excess of that set by the Target Emission Rate (TER) calculated in accordance with the approved Standard Assessment Procedure (SAP) 2012. Part L (2013) requires the following reductions:

a. A 6% aggregate reduction in CO_2 emissions beyond the requirements of Part L 2010 for dwellings; and
b. A 9% aggregate reduction in CO_2 emissions beyond the requirements of Part L 2010 for non-domestic buildings.

Criterion two places upper limits on the efficiency of controlled fittings and services for example, an upper limit to an external wall U-value of 0.35W/m^2.K (non-domestic buildings).

A Fabric Energy Efficiency Standard (FEES) has been introduced for new buildings although no definitive targets have been set in this regard. Part L2013 requires the following Fabric Energy Efficiency performance targets to be met:

– Target Fabric Energy Efficiency (TFEE). The TFEE is calculated for the building, based upon an elemental recipe of efficiency parameters, applied to the geometry of the building in question. This would generate a notional value which would then be relaxed by 15% to generate the TFEE

Criterion three requires that zones in non-residential buildings are not subject to excessive solar gains. This is demonstrated using the Simplified Building Energy Model (SBEM) or Dynamic Simulation Method (DSM) for non-residential buildings.

5.2 Local Policy

1.1 SPD Overview

The Sustainability Statement should take the form of a report with accompanying plans and drawings to illustrate and expand upon the information contained in the Sustainability Checklist.

The Sustainability Checklist provides the questions that applicants need to respond to in their Sustainability Statement and other relevant documents. For developments in Cambridge, the Sustainability Statement should be integrated into the Design and Access Statement for all major developments. For developments in South Cambridgeshire, the Sustainability Statement should form a stand-alone document.

Part 1a of the Sustainability Checklist applies to applications in Cambridge, while Part 1b applies to South Cambridgeshire. Policies have been colour coordinated as follows:

Key:
- Cambridge Local Plan (2018) / Applications in Cambridge
- South Cambridgeshire Local Plan (2018) / Applications in South Cambridgeshire
- Both the above

1.2 Energy & Carbon Reduction

As specified in the Sustainability Checklist Policies En.1 - En.3:

All Residential development – 44% reduction on Part L 2006 (19% reduction on Part L 2013)
All Non-residential – mandatory requirements for Ene01 associated with BREEAM 'excellent'
10% onsite renewable or low carbon energy for all new residential development and major non-residential development
For large residential developments, BREEAM Communities assessment could be considered

Energy sources

Encourage the installation of zero-emission heating sources, such as electric heating, ground-source and air-source heat pumps
All gas boilers to have low NOx emissions (boilers that meet a dry NOx emission rating of 40mg/kWh)
Minimum emission standards for CHP emissions (Spark ignition engine: less than 150 mgNOx/Nm3, Compression ignition engine: less than 400 mgNOx/Nm3, Gas turbine: less than 50 mgNOx/Nm3)
Considerations should be made in reference to decarbonisation of grid to determine CHP feasibility.

Carbon Reduction Template:

To demonstrate compliance, applicants should submit a Carbon Reduction Statement - Alongside the table below, the main body of the Statement should include a summary of the measures proposed to reduce carbon emissions following the energy hierarchy (be lean, be clean and be green).
Applicants will need to be mindful of the Government's intention to ban gas boilers in new homes from 2025 in a bid to tackle climate change. Coupled with the proposed changes to the carbon intensity of electricity in SAP 10, which takes into account the decarbonisation of electricity, a long term view of the carbon emissions associated with gas forms of heating should be taken into consideration. Where possible SAP 10 carbon factors are recommended.

1.3 Biodiversity

As specified in the Sustainability Checklist Policies Bio.1 – Bio.9:

All development proposals should seek to conserve and enhance biodiversity
A Preliminary Ecological Assessment and Protected Species Scoping Survey61 must be conducted
Mitigation hierarchy must be followed, demonstrating how existing habitats and species have been protected in the proposed ecological and landscape strategy

- It must be demonstrated that the proposals will deliver biodiversity net gain, with use of the DEFRA Biodiversity Offsetting metric.
- For major developments, the Natural Cambridgeshire Local Nature Partnership (LNP) Developing with Nature Toolkit must be adopted.

As specified in the Sustainability Checklist Policies Osc.2 – Osc.5:

> Consideration must be given to the provision of food growing opportunities.
> Measures must be integrated into the design to create healthy indoor environments.

1.4 Transport

The council has offered the following guidance on sustainable transport measures:

> Incentivise behavioural change towards greater car sharing, increased bus and rail use, and improved cycling/pedestrian infrastructure.
> Support sustainable and low emission public transport
> Improve parking allocation and facilities through non-idling policies, priority parking for low emission vehicles (with charging points) and for car share schemes, bicycle parking, electric bike charging points.

Electric Vehicles

> At least one rapid EV Charge Point for every 1,000m2 non-residential floor space (as per Institute of Air Quality Management guidance) or one fast EV Charge Point for every 1,000m2 non-residential floor space (if the installation of a rapid charge point is technically Impossible due to grid supply constraints (evidence must be provided)
> At least one rapid EV Charge Point for large-scale Major developments
> Installation of passive charge points - electric vehicle charging infrastructure for future activation - at all vehicle parking spaces without active charge points (to provide 100% coverage)
> A minimum of one car club vehicle per 500 parking spaces in new residential developments; a minimum of one vehicle per 10,000 m2 in non-residential developments

Electric and Low Emission Vehicle requirements:

> Residential developments
> 1. Charging Point (standard or fast where possible) for all private and allocated parking spaces
> 2. Charging Point (Fast or Rapid where possible) for every 10 communal parking spaces
>
> Commercial developments
> 1. One Rapid Charging Point/station Per 1000m2 of floorspace or per 20 parking spaces or
> 2. Allocated fast Charging Point for 50% of proposed parking spaces
>
> Supporting infrastructure
> 1. Provision of infrastructure to facilitate additional charging points
> 2. Support for other Low Emission technologies is welcome and considered on site-by-site basis

As specified in the Sustainability Checklist Policies T.1 – T.6:

> You must demonstrate how the development proposals give priority for walking and cycling over cars, linking the development with the surrounding walking and cycling network including planned projects
> Electric vehicle charging should be provided where there is car parking

1.5 Materials

As specified in the Sustainability Checklist Policy Osc.1:

> A target must be set for improving the environmental impact of materials used in constructing the development, with consideration given to the embodied carbon of materials. Non-residential schemes should refer to the BREEAM assessment. Residential schemes should give consideration to use of the Green Guide to Specification, certification schemes for specific materials with further information available at: http://www.greenbooklive.com/

1.6 Recycling and Waste

All new development should include measures to reduce construction waste and ensure that provision is made for storage capacity for waste, both internal and external.

WRAP (Waste and Resources Action Programme) have identified five key principles that design teams can use during the design process to reduce waste:

> Design for reuse and recovery;
> Design for off-site construction;
> Design for materials optimisation;
> Design for waste efficient procurement; and
> Design for deconstruction and flexibility

As specified in the Sustainability Checklist Policies Wr.1 – Wr.3:

> The size and location of recycling and waste facilities, both for storage and collection, should be factored into the design of the proposals using the requirements set out in the RECAP Waste Management Design Guide SPD and associated Toolkit.
> Complete Cambridge City Council's Waste and recycling checklist for developers.
> Measures should be put in place to reduce the amount of construction waste generated by the proposals, including the use of single-use plastics where alternative options exist; and re-use and recycle remaining construction waste (Non-residential schemes should refer to the BREEAM assessment)

1.7 Construction Standards (BREEAM)

As specified in the Sustainability Checklist Policies Cs.1 – Cs.2:

> All new non-residential development to achieve BREEAM 'excellent'
> Where BREEAM has been used, a BREEAM pre-assessment must be prepared for submission with your planning application

1.8 Climate Change Adaptation

All development should integrate measures into the design of developments to enable adaptation to climate risks including overheating and flood risk.

As specified in the Sustainability Checklist Policies Ca.1 – Ca.7:

- Overheating analysis must be undertaken following the CIBSE methodology and utilising future climate scenarios

> Where the proposal has flat roofs, these should be designed as green or brown roofs in line with the requirements of policy 31
> Where there are existing trees on site, including ancient and veteran trees, the retention of these trees should inform the development layout. This is alongside the integration of new tree planting.

1.9 Pollution

> All development proposals including external lighting or changes to existing lighting should reduce the potential impacts of that lighting
> All major development and any development proposals on land subject to contamination or land that is suspected to be contaminated.
> Developers are responsible for ensuring that a proposed development will be safe and 'suitable for use' for the purposes for which it is intended.
> Development must ensure that it does not adversely impact on air quality or expose sensitive users to poor air quality and does not lead to significant adverse effects on health, amenity and the environment from polluting or malodorous emissions, or dust or smoke emissions to air.

Development will be permitted where it is demonstrated that:

> a) It will not lead to significant adverse effects and impacts, including cumulative effects and construction phase impacts wherever applicable, on health and quality of life/amenity from noise and vibration; and
> b) Adverse noise effects/impacts can be minimised by appropriate reduction and/or mitigation measures secured through the use of conditions or planning obligations, as appropriate (prevention through high quality acoustic design is preferable to mitigation).

1.10 Health and Wellbeing

Further guidance will be contained in an update to the South Cambridgeshire Health Impact Assessment SPD and updates to both Councils Affordable Housing SPDs.

- Submission of a Health Impact Assessment required for proposals of 20 or more dwellings, or 1,000m2 or more of new floorspace.

1.11 Water Efficiency

As specified in the Sustainability Checklist Policies Wat.1 – Wat.3:

- All Residential development – requirement for potable water use of no more than 110 litres/person/day
- All Non-residential development – maximum BREEAM credits for Wat01
- All Non-residential development – 2 BREEAM credits for Wat01

Sustainable Drainage Systems:

- All scales of new development need to utilise SuDS in order to reduce the rate of discharge into watercourses and mitigate the risk of surface water flooding.
- Consideration must be given to water re-use as part of the site sustainable drainage strategy

A site-specific Flood Risk Assessment is required:

- For proposals of 1 ha or greater in Flood Zone 1
- For all proposals for new development (including minor development and change of use) in Flood Zones 2 and 3; or
- In an area within Flood Zone 1 which has critical drainage problems; or
- Where proposed development, or a change of use to a more vulnerable class, may be subject to other forms of flooding

1.12 Heritage Assets

Where works to improve the environmental performance of a heritage asset are proposed, evidence is required to demonstrate that the works will not harm the building's integrity or significance.

CIBSE guidance on building services in historic buildings sets out four principal aims when seeking to enhance the sustainability of heritage assets:

- Aim 1 – preserve historic fabric;
- Aim 2 – extend the beneficial use of older buildings;
- Aim 3 – reduce carbon emissions, using the hierarchical approach; and
- Aim 4 – specify environmentally conscious materials.

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