

Final Sustainability and Energy Statement

12-14 Kentwood Hill, Tilehurst, Reading

Prepared by Ivan Ball

Bluesky Unlimited
39 Marsh Baldon
Oxfordshire
OX44 9LP

ivan@blueskyunlimited.co.uk

22nd June 2026



This report has been prepared by bluesky unlimited with all reasonable skill, care and diligence, and taking account of the services and terms agreed between bluesky unlimited and the client. This report is confidential to the client, and bluesky unlimited accepts no responsibility whatsoever to third parties to whom this report, or part thereof, is made known, unless formally agreed by bluesky unlimited beforehand. Any such party relies upon the report at their own risk.

Bluesky unlimited disclaims any responsibility to the client and others in respect of any matters outside the agreed scope of services.

Contents

1.0	Executive Summary	4
2.0	Introduction	5
	2.1 Context	5
	2.2 Preamble	5
3.0	Assessment Methodology and Targets	6
	3.1 Methodology	6
	3.2 Targets	7
4.0	Proposal	8
	Environmental Considerations	9
5.0	Climate change	9
6.0	Place Making	10
7.0	Transport and Movement	11
8.0	Ecology and Landscaping	12
9.0	Resources	13
10.0	Buildings	15
11.0	Construction Process and Site Management	17
12.0	Conclusion	17

1.0 Executive Summary

This Final Sustainability and Energy Statement has been prepared in response to Condition 15 imposed on the planning consent (25/1260) for the change of use of social Club (sui generis) into Place of worship and religious education with ancillary meeting rooms, amenity space and offices in addition to alterations and extensions to existing building at 12-14 Kentwood Hill, Tilehurst, Reading, RG31 6DE.

Condition 15 says;

The development hereby permitted shall not be first occupied until 1) a Final BREEAM Certificate for the building in accordance with the BREEAM Sustainability Standard following a post- construction stage review carried out by a licensed assessor has been submitted to and receipt acknowledged in writing by the Local Planning Authority, demonstrating that the development has attained as a minimum the standard set out in the Interim BREEAM Certificate referred to in the above condition; Or, 2) a report demonstrating compliance with the criteria referred to in Condition 14 (2) has been submitted to and approved in writing by the Local Planning Authority.

Policy CC2: Sustainable Design and Construction says;

Proposals for new development, including the construction of new buildings and the redevelopment and refurbishment of existing building stock, will be acceptable where the design of buildings and site layouts use energy, water, minerals, materials and other natural resources appropriately, efficiently and with care and take account of the effects of climate change.

The building has not been used for some years and the use as a place of worship is ideally suited to the arrangement of the existing building. However, the use of the BREEAM methodology is very onerous and therefore, whilst it is not proposed to seek compliance with BREEAM this Statement demonstrates how the proposal has met the requirements of 2) above and Policy CC2.

The site is located in a sustainable location close to existing facilities and infrastructure and provides a facility to meet local need.

Throughout the design process, the applicant and design team members have given careful consideration to the sustainability issues relating to the site, and how these have been enhanced in a marketable and feasible manner. As a result, this Final Statement demonstrates that the development meets relevant sustainability criteria and in a number of areas exceeds them.

The application is supported by various other specialist reports and this Final Statement uses the detail within those reports to inform the Final Sustainability and Energy Statement.

2.0 Introduction

2.1 Context

- 2.1.1 Bluesky Unlimited has been commissioned by Berachah International Christian Fellowship to prepare a Final Sustainability and Energy Statement in response to Condition 15 imposed on the planning consent (25/1260) for the change of use of social Club (sui generis) into Place of worship and religious education with ancillary meeting rooms, amenity space and offices in addition to alterations and extensions to existing building at 12-14 Kentwood Hill, Tilehurst, Reading, RG31 6DE.

Condition 15 says;

The development hereby permitted shall not be first occupied until 1) a Final BREEAM Certificate for the building in accordance with the BREEAM Sustainability Standard following a post- construction stage review carried out by a licensed assessor has been submitted to and receipt acknowledged in writing by the Local Planning Authority, demonstrating that the development has attained as a minimum the standard set out in the Interim BREEAM Certificate referred to in the above condition; Or, 2) a report demonstrating compliance with the criteria referred to in Condition 14 (2) has been submitted to and approved in writing by the Local Planning Authority.

- 2.1.2 This Final Statement has been prepared to demonstrate how the proposed development meets the requirements of 2) above and Policy CC2.

- 2.1.3 The objectives of the Final Sustainability and Energy Statement are to;

- ❖ examine and comprehend the key sustainability themes and associated standards within the national and local planning policy and guidance;
- ❖ assess the performance of the development proposals in achieving the sustainability standards;
- ❖ identify any opportunities and appropriate actions required to ensure sustainability is delivered at the detailed design stage.

2.2 Preamble

- 2.2.1 Costs for sustainable initiatives and strategies are reducing through improvements in technology, design techniques and construction methods. Utility prices continue to rise and individuals and organisations are starting to value the more intangible benefits associated with 'sustainability'. A greater awareness is becoming apparent about the need for sustainable environments and building owners and occupiers are starting to demand these. A large part of designing sustainably is to do with addressing global warming through energy efficient design and using tools such as life-cycle assessments to maintain the balance between longevity and cost.

- 2.2.2 Sustainable development is a core principle throughout the proposed development.

3.0 Assessment Methodology and Targets

3.1 Methodology

3.1.1 The methodology involves completing a detailed policy review of current and emerging national and local policy relating to sustainability to provide a specific policy context for the assessment.

3.1.2 Furthermore a review of good practice methods and techniques relating to sustainability has been made.

3.1.3 The key aspects of sustainability are addressed under the following headings and these form the structure of this assessment.

- ❖ Climate change
- ❖ Place making
- ❖ Transport
- ❖ Ecology
- ❖ Resources
- ❖ Business
- ❖ Buildings

3.1.4 The set of targets the site will achieve is set out in section 3.2 below. The subsequent sections propose strategies for meeting the targets and for the development to become an example of good practice, which delivers a sustainable building by addressing social, economic and environmental drivers.

Emission Factors

3.1.5 The CO₂ emission factors, where applicable, used throughout this report have been taken from the Building Regulation Approved Document L – 2021.

	kg CO ₂ /kWh
Mains gas	0.210
Grid supplied and displaced electricity	0.136

3.2 Targets

Schedule of Sustainability Requirements

3.2.1 The following targets have been crafted to enable compliance with current Building Regulations as well as National and Local planning policy.

3.2.2 The numbering in the table relates to the chapters in this Final Sustainability and Energy Statement.

Schedule of Sustainability Requirements		
Ref	Description of Target	Target/Scope
5.0	Climate Change	
	Peak run-off rates are no greater for the developed site than it was for the pre-development site.	Whole Site

Schedule of Sustainability Requirements		
Ref	Description of Target	Target/ Scope
7.0	Transport and Movement	
	3 parking spaces including a disabled space are provided.	Whole site
	Cycle parking has been provided at a ratio of 1 space per 50 sq m of floor area (for places of worship). A total of 13 cycle parking spaces are provided.	Whole Site

Schedule of Sustainability Requirements		
	Description of Target	Target/ Scope
9.0	Resources	
	All materials in buildings are A+, A or B rated according to The Green Guide to Specification, unless deemed impractical or otherwise prescribed.	Whole Site
	All timber for basic elements will be obtained from appropriately certified legal sources. In addition, 80% of building element timber will be procured from sustainably certified forests.	Whole Site

Schedule of Sustainability Requirements		
Ref	Description of Target	Target/ Scope
10.0	Buildings	
	Carbon dioxide emissions have been reduced (based on Part L – 2021) through energy efficiency.	The building

Schedule of Sustainability Requirements		
Ref	Description of Target	Target/ Scope
10.0	Buildings	
	Additional insulation has been installed where required to improve the thermal efficiency of the building.	The building
	Existing windows have been replaced with double-glazed sealed units to improve thermal efficiency.	The building
	All internal lighting has been provided using dedicated low energy fittings.	The building

Schedule of Sustainability Requirements		
Ref	Description of Target	Target/ Scope
11.0	Construction Process and Site Management	
	Waste arising from site has been monitored and segregated into at least five waste streams for recycling throughout the construction period.	Construction Site
	Water consumption on site has been monitored monthly and compared with agreed KPIs throughout the duration of construction.	Construction Site
	All temporary timber (site hoardings, formwork, and scaffold boards) will be from FSC, CSA, SFI or PEFC sources, or re-used timber.	Construction Site

4.0 Proposal

4.1 Planning permission has been granted for the following;

Unit Type	Floor Area
	m ²
Place of Worship	513.0
	513.0

Environmental Considerations

5.0 Climate Change

5.1 Flooding

5.1.1 Climate change projection predicts a decrease in annual rainfall in the South East of England by up to 10% with significantly wetter winters (between 15-20% more winter rain) and an increase in frequency of severe weather. Drier summers may lead to increased flash flooding when sudden storms cause rapid run off over dry ground. Recent research suggests the number of people at risk of localised urban flooding in England could increase fourfold due to climate change.

5.1.2 Sustainable drainage involves the provision of surface water drainage systems that slow down the run off rate to rivers/watercourses and aquifers, thus conserving water as a natural resource.

5.1.3 A Flood Risk Assessment was not required to support the application and has not been prepared.

5.1.4 There is no change to the impermeable area of the site and therefore the rainwater runoff will be the same as the existing scenario.

5.2 Surface Water Management

5.2.1 Consideration has been given to the use of grey water recycling. However, the internal infrastructure required would add considerable complexity to the construction. In addition, the cost of systems does not currently make them a viable option. They have therefore not been included in the proposed development.

6.0 Place Making

6.1 Efficient Use of Land

- 6.1.1 Building intensification, where appropriate, is a key objective of Government policy in order to meet the requirements for new buildings, whilst limiting pressure on green field sites. The use, design and layout of the building is appropriate to the location.

6.2 Design Process

- 6.2.1 High quality design is an integral element to sustainable development, both of internal and external spaces and some key elements, which have been considered within the detailed design of the site and building have included the following:

- ❖ Resource efficiency;
- ❖ Safety;
- ❖ Adequate daylight and minimum overlooking;
- ❖ Provision of outside spaces;
- ❖ Flexible and functional use of accommodation;
- ❖ Aesthetically pleasing.

6.3 Passive Solar Gain and Daylighting

- 6.3.1 The energy required for space heating and lighting can be reduced by using the orientation, form and fenestration to make the most use of passive solar gain.
- 6.3.2 New roof lights have been installed, a new feature window to the southern gable wall has been installed and three new French doors into the room which is proposed as the Main Meeting Hall have also been installed. These are generally orientated towards the northeast and southwest and provide additional natural daylighting to the Hall and assist with increasing cross ventilation to limit summer overheating.

6.4 Adaptability

- 6.4.1 Whilst the proposed use of the building is as a place of worship, only minimal changes have been made from the previous use. The building has potential for the future adaptability to other uses.

6.5 Safety and Security

- 6.5.1 The scheme has, through detailed design development, incorporated Secured by Design principles, which has put the building users and staff safety at the forefront.

7.0 Transport and Movement

The application site is located in on Kentwood Hill, Tilehurst close to the junction with School Road and Norcot Road. There are various shops and local amenities nearby and the site has good transport links being close to the M4 motorway and Reading town centre. The site is bounded by residential accommodation to the north and east, an electricity substation to the south and Kentwood Hill to the west.

7.1 Public Transport

7.1.1 The nearest bus stops to the application site are located approximately 130 metres (southbound) and 160m (northbound) on Kentwood Hill. The bus stops are served by Route 18 Buzz, which provides services between Tilehurst Triangle, Portman Road and Central Reading every half an hour from Monday to Saturday and hourly on Sundays and Route 85, which provides a once-a-day service to Little Heath School via Oxford Road.

7.1.23 Tilehurst railway station is located approximately 1.2km to the north of the site and is easily accessible by foot, cycle or the Route 18 Buzz bus service. Tilehurst Railway Station provides direct services to Didcot Parkway and London Paddington. Reading railway station is located approximately 6.1 km to the east of the site.

7.2 Pedestrian and Cycle

7.2.1 Local to the application site, lit footways are provided along both sides of Kentwood Hill, being between 1.8m and 2.1m in width.

7.2.2 The existing infrastructure links the application site to nearby residential areas, bus stops and to the town centre. The town centre is located approximately 6.0km to the east of the site which has an extensive network of pedestrianised streets which provide direct access to the railway station and the main bus interchange.

7.2.3 Cycle parking has been provided in accordance with RBC's parking requirements. The standards require 1 space per 50 sq m of a place of worship, which equates to 13 spaces. 10 secure cycle spaces have been provided in the form of Sheffield stands to the north of the main building with an additional secure cycle/buggy store has been provided within the main building.

7.3 Parking

7.3.1 The site provides 3 parking spaces including a disabled space. Additional on street parking is available in the wider area and Recreation Road Public car park offers additional parking and is approximately 180m from the site.

8.0 Ecology and Landscaping

- 8.1.1 Landscape design and the presence of nature are critical to the quality of our urban environment and their role is not only to make places look greener but also fundamentally to influence the form of the development.
- 8.1.2 The existing site is entirely covered by buildings and hardstanding and there has been no requirement for an ecology or biodiversity assessment.
- 8.1.3 A number of planter boxes have been installed into the amenity space around the building, which provides some shrub planting.

9.0 Resources

9.1 Materials

9.1.1 The Green Guide to Specification is a simple guide for design professionals. The guide provides environmental impact, cost and replacement interval information for a wide range of commonly used building specifications over a notional 60-year building life. The construction has targeted the use of materials that are A+, A or B rated.

9.1.2 Preference has been given to the use of local materials & suppliers where viable to reduce the transport distances and to support the local economy. A full evaluation of these suppliers has been undertaken.

9.1.3 In addition, timber has been sourced, where practical, certified by PEFC or an equivalent approved certification body and all site timber used within the construction process has been recycled.

9.2 Pollution

9.2.1 All insulation materials have a zero-ozone depleting potential.

9.3 Noise

9.3.1 The building has been designed and constructed to reduce sound transmission. An Acoustic Assessment Report has been prepared by Pulsar Acoustics and accompanies the submission.

9.4 Construction waste

9.4.1 A Site Waste Management Plan has been prepared which has monitored and reported on waste generated on site into defined waste groups.

9.4.2 The Plan has set targets to promote resource efficiency in accordance with guidance from WRAP, Envirowise, BRE and DEFRA.

9.4.3 The overarching principle of waste management is that waste will be treated or disposed of within the region where it is produced.

9.4.4 Construction operations generate waste materials as a result of general handling losses and surpluses. These wastes have been reduced through appropriate selection of the construction method, good site management practices and spotting opportunities to avoid creating unnecessary waste.

9.4.5 A Construction Strategy has been developed, which has considered the following issues:

- ❖ Proper handling and storage of all materials to avoid damage.
- ❖ Efficient purchasing arrangements to minimise over ordering.
- ❖ Segregation of construction waste to maximise potential for reuse/recycling.
- ❖ Suppliers who collect and reuse/recycle packaging materials

9.5 Waste and Recycling

9.5.1 Operational waste and recycling has been considered in the proposed development in the following way:

- ❖ External space has been provided for the storage of recyclable materials, for collection by the Authority or private contractors, within the boundary of the site;
- ❖ The external space for recyclable material is of sufficient size to accord with Local Authority procedures;
- ❖ Internal storage for recyclables has been provided.

10.0 Buildings

10.1 Energy use and CO₂ emissions statement

10.1.1 Introduction

10.1.1.1 The proposal retains an existing building and repurposes it for a new use. Limited alterations have been made to the structure of the building. However, where changes have been proposed these have been designed and constructed to reduce energy demand and carbon dioxide emissions. The objective has been to reduce the energy demand to an economic minimum by making investment in the parts of the building that have the greatest impact on energy demand and are the most difficult and costly to change in the future, namely the building fabric.

10.1.1.2 The building is largely retained as existing albeit the following changes are proposed;

- ❖ Extending the roof of the existing rear extension by raising the eaves level by approximately 1050mm;
- ❖ Construction of a new slate roof covering on the proposed roof extension;
- ❖ Installation of new roof lights into the proposed roof extension;
- ❖ Installation of new feature window to the southern gable end at ground floor level;
- ❖ Installation of new French doors at ground floor level to the Main Meeting Hall.

10.1.2 Methodology

Passive solar gain and Daylighting

10.1.2.1 Passive measures include allowing for natural ventilation and exposed thermal mass coupled with high levels of insulation, air tightness and the control of solar gain.

10.1.2.2 The new roof lights, French doors and feature window allow for additional natural ventilation and daylighting.

Building Envelope

10.1.2.3 The roof over the front, 3-storey element of the building has been upgraded with new roof tiles, battens and breather membrane and the installation of insulation between and under the rafters.

10.1.2.4 The external walls to the front, 3-storey element of the building have also been upgraded with the installation of Celotex PIR insulation.

10.1.2.5 The existing windows have been replaced with high efficiency double-glazed UPVC units.

10.1.2.6 The following U-values have been achieved for the new elements;

Element	Proposed
	W/m ² K
New Roof over Existing Rear Extension	0.11
New Roof Lights, Feature Window and French Doors	1.40
Improved Roof over Front 3-storey element	0.18
Improved External Walls to Front 3-storey element	0.24
Replacement Window Units (16 windows have been upgraded)	1.60

Air Leakage

10.1.2.7 Large amounts of heat are lost in winter through air leakage from a building (also referred to as infiltration of air permeability) often through poor sealing of joints and openings in the building

Ventilation

10.1.2.8 The windows to the building are openable and cross ventilation can be provided. Intermittent mechanical extract ventilation has been installed in all WCs.

Lighting

10.1.2.9 Throughout the building natural lighting has been optimised.

10.1.2.10 LED lighting has been used throughout and all light fittings have had lamps installed with a minimum luminous efficacy of 100 light source lumens per circuit-watt.

10.2 Water use statement

10.2.1 In the South East of England, water demand exceeds the volume licensed for abstraction, with the shortfall being met from ground water. In excess of 20% of the UK's water is used domestically with over 50% of this used for flushing WCs and washing (source: Environment Agency). The majority of this comes from drinking quality standard or potable water.

10.2.2 The amount of potable water used within buildings can be reduced by using fixed fittings, which reduce water use in WC's and to taps and showers. Greywater harvesting systems are not proposed.

10.2.3 Water efficient devices have been fully evaluated, and installed, wherever replacement is required. The specification of such devices has been considered and has been subject to an evaluation based on technical performance, cost and market appeal, together with compliance with the water use regulations.

11.0 Construction Process and Site Management

11.1 Where best practice guidance is available dealing with construction methods and standards these have been adopted.

11.2 The effects of construction can be divided into two sections;

- ❖ those related to the materials used on site
- ❖ those related to the construction process

Considerate Constructors

11.3 To ensure good relations with the local community, the Applicant has kept local people informed of works, which might have affected them, and has provided a method for comments, complaints and required remedial action for action.

Construction Site Impacts

11.4 Site management procedures has been put in place to monitor water consumption and all site timber used in construction has been sourced from certified suppliers.

12.0 Conclusion

12.1 This Final Statement demonstrates that the development has achieved a sustainable development in terms of its economic, social and environmental sustainability.

12.2 Throughout the design process, the applicant and design team have given careful consideration to the sustainability issues relating to the site, and how these have been enhanced in a marketable and feasible manner. As a result, this Final Statement demonstrates that the building meets relevant sustainability criteria and in a number of areas exceeds them.

12.3 The Final Statement also describes the responsibilities that the applicant, designers and consultant and construction team have in delivering sustainability measures that have contributed to the objectives and targets set out above.