

5.0 CONCLUSION

The proposals will replace the existing dwelling, which is in a poor state or repair, with a highly sustainable Net Positive Energy Building (NPEB).

This statement and scheme has been prepared in close collaboration with Nicholas Dexter Landscaping, Rural Solutions Planning Consultants who have prepared the accompanying planning statement, ION consulting engineers and QED structural engineers alongside supporting work from other consultants. It is considered that the replacement dwelling is in accordance with the provisions of the NPPF, National and Local planning policies as well as the High Weald Design guide and associated planning guidance.

The existing dwelling is unremarkable in design and is a prominent form within its context. In contrast, the parkland garden is considered to retain great value and the proposals have been prepared so as to have no detrimental impact on this setting.

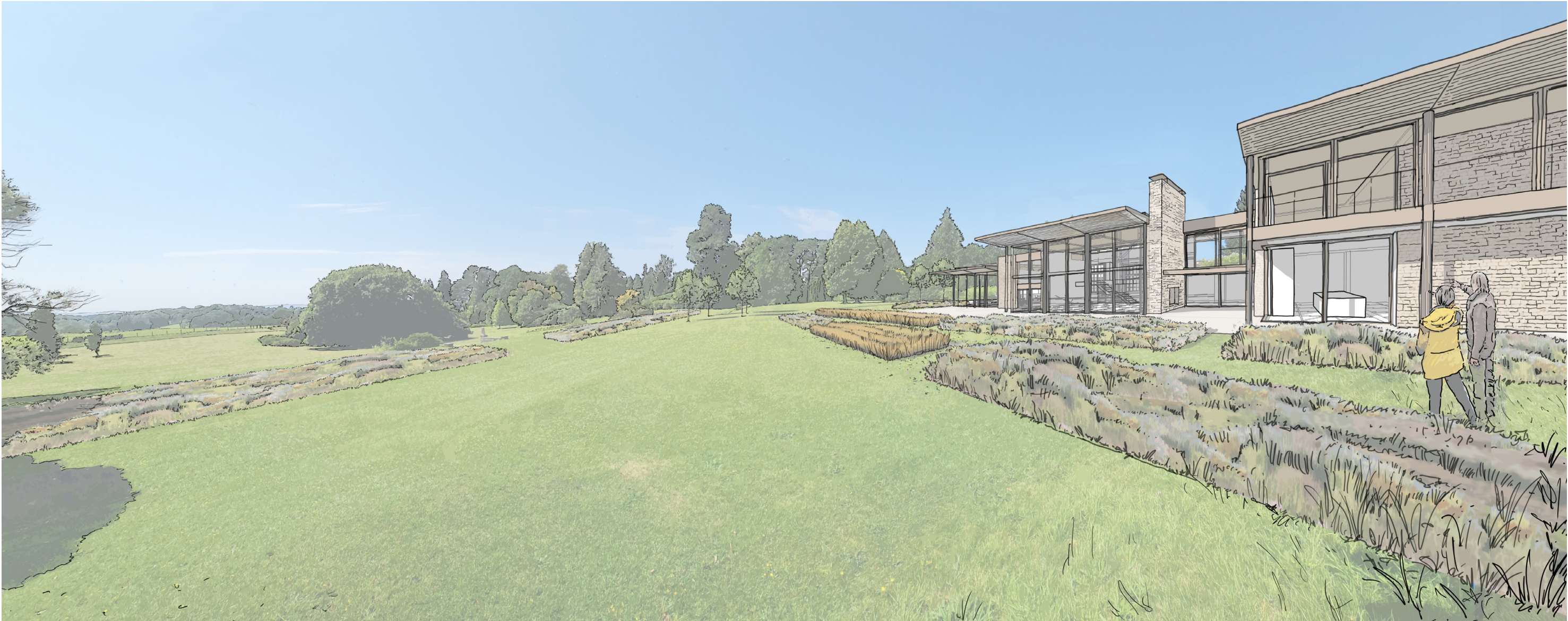
The approach to design is one that promotes a contemporary dwelling that it is both integral with the landscape and sensitive of the context in form, positioning and materials. The unremarkable existing dwelling will be replaced with a dwelling that relates to its context and is of lower impact. The proposed dwelling is over a storey lower and makes use of the local stone and natural materials to blend in with the landscape setting.

It has been shown in the supporting documentation from Nicholas Dexter Landscaping that the proposed new dwelling will have no impact on the wider AONB.

The dwelling will be constructed so as to be net positive in yearly energy consumption and represent one of the highest levels of sustainability. This is achieved with renewables technologies combined with passivhaus design

and a super insulated construction. The approach will also focus on natural insulation rather than that derived from the petrochemical industry with CO2 producing blowing agents. The choice of the local stone and natural materials and detailing also references the local vernacular and will assist with allowing the building to recede into the site.

The combined approach to architecture and landscaping will significantly enhance its immediate setting and it is considered that this unique dwelling will demonstrate the highest levels of sustainable architecture.



View looking west of the proposed replacement dwelling in the context of the wider estate beyond.

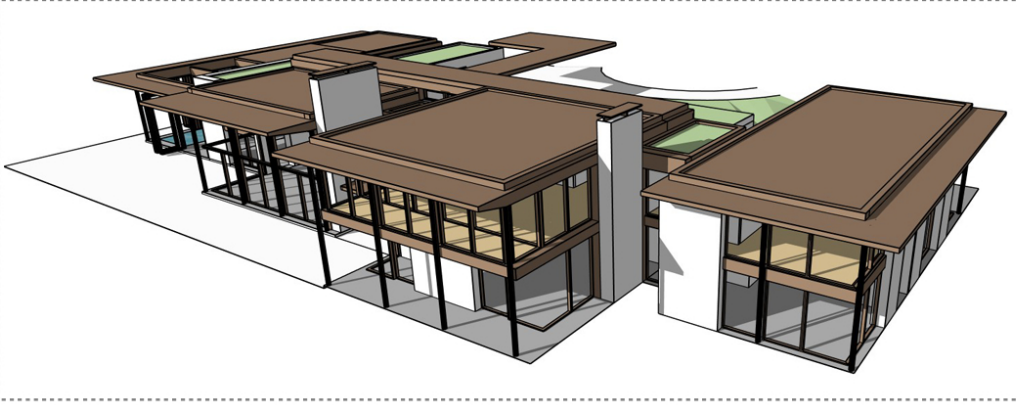


View from within the estate showing the south facade of the proposed dwelling

Passive House-Verification

10.4a EN

PHPP



Building:

Lydhurst Estate

Street:

Warminglid

Postcode/City:

RH17 5TG

Province/Country:

East Sussex

GB-United Kingdom/ Britain

Building type:

2-Single family house with separate apartment I Two-family hous

Climate data set:

GB0003a-London Gatwick, Altitude corrected, +0K summer correct

Climate zone:

3: Cool-temperate

Altitude of location:

111 m

Home owner / Client:

Street:

Postcode/City:

Province/Country:

Mechanical engineer:

Street:

Postcode/City:

Province/Country:

Certification:

Street:

Postcode/City:

Province/Country:

Architecture:

Meloy Architecture & Design

Street:

Hill House, Juggs Road

Postcode/City:

BN7 3PP

Lewes

Province/Country:

East Sussex

Energy consultancy:

APE Architecture & Design Ltd.

Street:

90 Markmanor Avenue

Postcode/City:

E17 8HH

London

Province/Country:

Greater London

Year of construction:

2026

No. of dwelling units:

1

No. of occupants:

3.9

Interior temperature winter [°C]:

20.0

Internal heat gains (IHG) winter [W/m²]:

2.1

Specific heat capacity [Wh/K per m² TFA]:

132

Interior temp. summer [°C]:

25.0

IHG summer [W/m²]:

2.1

Mechanical cooling:

Specific building characteristics with reference to the treated floor area

	Treated floor area m²			Criteria	Alternative criteria	Fullfilled?²
Space heating	Heating demand kWh/(m²a)	11	≤	15	-	Yes
	Heating load W/m²	11	≤	-	10	
Space cooling	Cooling & dehum. demand kWh/(m²a)	-	≤	-	-	-
	Frequency of overheating (> 25 °C) %	0	≤	10	-	Yes
	Frequency of excessively high humidity (> 12 g/kg) %	0	≤	20	-	Yes
Airtightness	Pressurisation test result n50 1/h	0.6	≤	0.6	-	Yes
Non-renewable Primary Energy (PE)	PE demand kWh/(m²a)	8	≤	-	-	-
Primary Energy Renewable (PER)	PER demand kWh/(m²a)	7	≤	60	60	Yes
	Renew. energy generation (in rel. to projected building footprint area) kWh/(m²a)	0	≥	-	-	

I confirm that the values given here have been determined following the PHPP methodology and based on the characteristic values of the building. The PHPP calculations are attached to this verification.

Task:

First name:

Surname:

Certificate-ID

Issued on:

City:

Passive house Classic?

Yes

Signature:

Supporting design and access statement - Lydhurst Estate 35

APPENDIX B DEVELOPMENT AREAS

	Existing	Proposed at Pre-Planning	Proposed at Full Submission
Residential/ habitable area	Ground floor residential internal area	444	454
	First floor residential internal area	283	628
	Second floor residential internal area	199	
	Consented increase in area	90	
	Total residential (including consented)	1016 sqm	
Non habitable area			
	Basement area	172	439
	Games room building	67	573
	Total internal floor area existing	1255 sqm	1012 sqm
Development area			
		% increase over existing/consented	-0.4 %
	Lower ground floor plant room/ basement	97	61
	Lower ground floor swimming pool wing	191	214
	Games room building (retained)	67	67
Permeable development area			
	Total internal floor area proposed	1437 sqm	1354 sqm
		% increase over existing/consented	7.9 %
	Residential footprint	867	875
	Games room footprint	78	78
Ecological habitat			
	Total existing hardstanding (includes at grade parking)	1023	1023
	Total undercroft hardstanding	253	271
	Total development area (hardstanding and footprint)	2221 sqm	2247 sqm
		% increase over existing/consented	7.2 %
Developed volume (above ground)			
	Permeable hardstanding (includes parking)	906	846
	Permeable green roofs	255	91
	Total non permeable development area as proposed	1060 sqm	937 sqm
		% decrease of non permeable development over existing/consented	-55.3 %
Ridge height			
	Total % developed area which is landscaped/ green roofs	30.2 %	21.9 %
		% increase in developed area as ecological habitat	21.9 %
	Approximate volume of existing dwelling	4646	4375
	Approximate volume of consented increase	1102	1168
	Approximate volume of existing basement		
	Total approximate volume	5748 m3	5543 m3
		% increase in total developed volume	19.8 %
		% increase in developed volume (residential only i.e less pool wing)	-5.4 %
	Ridge height of existing dwelling at its highest	118.65 m AOD	118.1 m AOD

APPENDIX C SCHEDULE FOR REUSE OF MATERIALS

The following schedule highlighted how the proposed development will reuse and repurpose the existing dwelling. The intention will be for as much of the existing material to be re-used on the estate and minimise the removal of demolition waste out of the estate. The below is an updated schedule from that supplied as part of the pre-planning application.

1.0 Masonry (Brick/Block)
Potential for reuse: High
Re-purposing: Clean and reuse any bricks within the wider estate. Any low grade masonry that cannot be reused is to be crushed on site, graded and used within the sub base or as aggregate

2.0 Timber Roof Structure
Potential for reuse: Moderate to High
Re-purposing: Reuse within the wider estate where timber is structurally sound. Inspect and treat for pests or damage. Any secondary grade timber to be recycled for mulch, panel board etc

3.0 Roof Tiles
Potential for reuse: High
Repurposing: Reuse intact tiles for roofing projects within the wider estate. Tiles that are not to re-used on the estate to be offered for use within the wider community. Any broken tiles can be crushed on site and used as sub-base material.

4.0 Hardwood Timber Floors
Potential for reuse: High
Repurposing: Use as flooring or wall cladding within the new dwelling and/ or wider estate. Plane and sand as necessary. Inspect and treat for pests or damage. Any timber floor not used to be recycled through salvage and reclamation specialists

5.0 Crittall Windows
Potential: Moderate to High
Re-purposing: Restore and reuse as windows within the wider estate where thermal performance is not paramount. Any crittall windows not used to be recycled through salvage and reclamation specialists

6.0 Internal Doors/ Joinery
Potential for reuse: High

Re-purposing: Reuse any functional doors within the wider estate where possible. Any doors/ joinery not used to be recycled through salvage and reclamation specialists.

7.0 Existing Staircase
Potential for reuse: Moderate
Re-purposing: Reuse if possible or rework into smaller construction elements.

8.0 Radiators
Potential for reuse: Moderate
Re-purposing: Clean and recycle through salvage and reclamation specialists.

9.0 Copper Piping
Potential: High
Re-purposing: Any modern pipework to be reused. Aged copper piping to be wholly recycled.

10.0 Wiring
Potential: Low to Moderate
Re-purposing: Wiring to be stripped and recycled for metal recovery.

SUSTAINABILITY NOTES:

The following are the principles of reuse to be applied within the project at the Lydhurst Estate.

Material Harvesting
Where possible it should be viewed that demolition is an opportunity to "mine" valuable resources.
The above register identifies high-value materials (e.g., hardwoods, masonry, metal) and prioritize their extraction.

Local Reuse and Circular Economy
Use materials within the wider estate to minimise transport emissions.
Engage with local businesses, workshops, or communities to repurpose salvaged materials.

Hierarchy of Reuse
Direct Reuse: Use materials as-is (e.g., bricks, tiles, beams).
Adaptation: Modify materials for new purposes (e.g., converting doors into furniture).

Recycling: Process materials into new forms when direct reuse is not possible (e.g., turning concrete into aggregate).

Designing Out Waste:
On site operations will separate materials during demolition to maintain their integrity and recyclability.

Value Over Time
Consideration for the embodied energy and life cycle of materials will be made, prioritizing those with high durability and aesthetic or functional value.

Collaborative Process
The client, consultant team and contractors are to work together to integrate reuse principles into the project.
Share knowledge and create a culture of sustainable reuse.

Design for Disassembly
The demolition should be planned to enable the recovery of materials for reuse, avoiding unnecessary damage.
Materials should be labelled and documented for future re-purposing.

By applying these principles, the demolition process transforms from waste disposal into an opportunity to extend the lifecycle of valuable materials sustainability.



MELOY ARCHITECTURE AND DESIGN

Meloy Architecture and Design were founded in 2006 and have built a reputation for award winning sensitive and sustainable contemporary design.

The practice has won numerous internationally recognised awards. Most recently for their project 'The Mile House' which was recognised at the South National Park Design Awards with the residential award.

The project 'Hill House Passivhaus' was the first fully certified Passivhaus within the South Downs National Park. This project was supported by the Parish Council who commented *'that such a thoughtful design should stand as a fine example to be emulated elsewhere in Lewes and the National Park.'* The scheme was also locally recognised with a Friends of Lewes Award and nationally with a RIBA national award given to projects that are deemed to have made significant contributions to architecture. The project is also featured in the RIBA publication 'Good Design Doesn't Cost The Earth' which promotes sustainable design to meet the demands of meeting the climate emergency.

Contemporary but respectful of context the design led approach seeks to produce buildings that are *'of place'*. This is undertaken in close collaboration with clients, consultants and stakeholders to ensure the right response to the brief.

Recognised Awards;

South Downs National Park Design Awards 2024

RIBA Regional Building Award 2024

Sussex Heritage Trust Award 2024

South Downs Award 2024

GAGA Detail Award 2020

RIBA National Award 2019

RIBA House of the year longlist 2019

RIBA Regional Building, Sustainability and Small Projects Award 2019

FOL Award 2019

RIBA Regional Building Award 2014

Manser Prize Shortlist 2014

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