

Climate Change, Energy and Sustainable Development Questionnaire

When should this questionnaire be used?

This questionnaire is for minor developments (developments from one to nine residential units and one to 1000 square meters of non-residential floor space) and householder developments.

Developments of a scale above these thresholds (major developments) should not use the questionnaire, but should instead submit a Sustainability Statement and an Energy Statement. See policy 'D2: Climate change, sustainable design construction and energy' (policy D2) and the 'Climate Change, Sustainable Design, Construction and Energy SPD' (the 'SPD') for more information. The SPD is available on the Council's website.

What is the purpose of this questionnaire?



Policy D2 requires non-major developments to submit "adequate information" about how the development complies with the energy requirements of policy D2 and "information proportionate to the size of the development" regarding other matters of sustainability. These requirements for information will be deemed to have been met if a correctly completed questionnaire is submitted.

The questions in the questionnaire are based on requirements set out in Local Plan policies and you should refer to these to make full use of the questionnaire. The Climate Change, Sustainable Design, Construction and Energy SPD sets out guidance on the matters covered within the questionnaire.

The questionnaire is not an exhaustive list of sustainability matters and additions to the questionnaire are welcome.

The questionnaire is intended to guide development towards sustainable outcomes through compliance with Local Plan policy, from the initial proposal and site layout through to detailed design proposals, the construction process and finally the operation of the completed building. As a result, it is important that the questionnaire is first considered at the outset of planning and at the earliest stage of design. It should be updated as plans evolve.

If planning permission is granted, a condition will be applied requiring work to be carried out in accordance with the information provided in the questionnaire. It is important that the questionnaire is completed in good faith and any works identified within it are deliverable.

Applicant's name:	Paul Wilson
Agent's name:	Paul Cashin Architects
Site Address:	Monks House, 21 Queen Street, Gomshall, Guildford, GU5 9LU
Application reference (if known):	23/P/01953
Description of proposal: (e.g. total and types of units/floorspace)	Planning and Listed Building Consent for a single storey side extension, refurbishment of living spaces and landscaping of gardens.
Questionnaire prepared by: (name and qualification/job title)	Paul Cashin - Architect
Signature of above:	
Energy information prepared by: (name and qualification/job title):	Paul Cashin - Architect
Signature of above:	

Part 1: Sustainable design, construction and climate change adaptation

1. Efficient use of minerals, use of secondary aggregates, waste minimisation and reuse of material from excavation and demolition (Policy D2 1a &1b). See 'Error! Reference source not found.' in the sustainable design and construction guide in section 5 of the SPD.

1.a Will the use of primary minerals be minimised through e.g. the use of renewable materials, recycled and secondary aggregates, and other recycled and reused materials? Please provide details.

The existing patio will be lifted and reused as hardcore aggregate under the new ground floor slab.

1b. Will demolition/excavation material from the proposed works be reused on site? Please provide details of where material will be derived and where it will be used.

The existing patio will be lifted and reused as hardcore aggregate under the new ground floor slab.

1c. Will unused mineral waste be sent for reuse or recycling? Please provide details.

There is very little demolition of the existing buildings, only the patio and substrate will be reused fully on site.

1d. Will non-mineral construction waste (e.g. packaging, timber, plastics) be minimised? Please provide details.

The extension requires no plastic, it is clad in timber and has a standing seam metal roof. Deliveries of these materials can be made in single visits for such small amounts, and packaging will be minimised by suppliers.

1e. Will locally sourced materials be used? Please provide details.

Timber cladding will be sourced from local merchants in the Surrey area, and steel/metal will be delivered from a local supplier.

1f. Will materials be sustainably sourced (e.g. FSC certified timber)? Please provide details.

Timber cladding, internal timber joinery will be supplied by FSC suppliers such as Russwood.

2. Low energy design: landform, layout, building orientation, massing and landscaping (Policy D2 1c and 2). See 'Error! Reference source not found.' and 'Error! Reference source not found.' in the sustainable design and construction guide in section 5 of the SPD.

2a. Will operational energy demand be minimised through low energy design and the use of energy efficient fabric? Please provide details. This information should align with the energy data provided in parts 2a and 2b of this questionnaire.

The extension is a simple floor plan with glazed sides, which will have triple glazed panels and under floor heating from an air source heat pump, heating the floor at low energy demand levels. Insulation in the roof will exceed U-values required by building regulations, currently aiming for 0.10 across the roof build up.

2b. Has the layout of the site, landscaping and orientation of buildings taken account of solar receipts and other environmental factors to reduce the need for mechanical heating and artificial lighting in the development? Please provide details.

In the summer the over hanging roof will shade the interior spaces, thus minimising over heating. In the winter the sun will be low enough to shine into the spaces under the overhanging roof. This will aid solar gain in colder months. The triple glazing will aid heat retention from the solar gain, whilst minimising heat loss.

The central roof light ensures good day light levels can enter the extension even on overcast days. This will reduce the need for power consumption of artificial lighting.

2c. Will the internal layout of buildings make best use of solar gain and natural light? Please provide details.

Yes see above.

2d. Will passive cooling/ventilation measures be incorporated into the scheme? Please provide details.

The extension is passively cooled, as all sides of the extension can be opened. The applicant is aware of the passive cooling idea of opening the doors on the north side to let in cooler air.

2d. Will the scheme include mechanical cooling (e.g. air conditioning)? If so, explain why passive measures would not be adequate.

No mechanical cooling is proposed.

3. Water efficiency (Policy D2 1d). See 'Error! Reference source not found.' in the sustainable design and construction guide in section 5 of the SPD.

3a. If the scheme includes new dwellings, will these be designed to the national optional building regulation water efficiency standard of 110 litres per person per day (regulation 36(2b))? The relevant Water Efficiency Calculation (s) (Part G) for the new dwellings should be submitted to the Council prior to occupation.

N/A

3b. For all developments, will water efficiency measures be incorporated into the scheme to reduce the demand for water? Please provide details.

The existing WC will be upgraded for new fittings with minimal flush/water use cisterns. The new kitchen will have upgraded taps with tap aerators.

3c. For all developments, will water harvesting measures be incorporated into the scheme? Please provide details.

Surface water is collectable from the new extension roof and stored in water butts which can be used in garden watering.

4. Measures that enable sustainable lifestyles for building occupants (Policy D2 1e). See 'Error! Reference source not found.' in the sustainable design and construction guide in section 5 of the SPD.

4a. Will measures that enable sustainable lifestyles for building occupants be incorporated into the scheme? Please provide details.

The proposals do not include charging points at this time, however the applicant will be amenable to installing such measures if required.

5. Climate change adaptation (Policy D2 4 and P4). See 'Error! Reference source not found.' in the sustainable design and construction guide in section 5 of the SPD.

5a. Will the scheme incorporate adaptations for the full range of expected climate impacts including: hotter/drier summers, warmer/wetter winters, more frequent and severe heatwaves and overheating, and more frequent and severe heavy rainfall events and flooding? Please provide details.

The extension sits in place of an unused patio which currently collects and holds surface water (as it is not permeable). The proposals therefore replace a potential flood risk with a suitable extension that allows rain water to be collected and the landscaping to be replaced with permeable surfacing in new patio areas.

5b. Will the use of soft landscaping and permeable surfaces be maximised (as opposed to hard surfacing)? Please provide details.

Please see the landscape plan for details.

5c. Will surface water be managed by Sustainable Drainage Systems (SuDS)? Please provide details.

The new extension will link to the existing soakaway which will be upgraded.

6. Any further information

6a. Please provide information about any other sustainable design, construction and climate change measures that will be incorporated into the scheme.

The house is Listed and although the proposals have been designed to minimise impact on historic elements of the house, the extension and landscaping will give the house a renewed façade and arrangement of spaces that will ensure its longevity for the next few decades. The façade will be clad in timber which not only allows the historic portions of the house to be understood when viewed from the public realm, but also protects the weaker extensions and accretions from continued weather erosion. The pebble dash render is notorious for failing over time and is unsightly. Timber cladding is a completely sustainable product and can help protect these elements from further decay.

Part 2a: Energy

7. Combined (Cooling) Heating and Power ((C)CHP) networks (Policy D2 6, 7 and 8).

7a. Will the development fall within the vicinity of a (C)CHP/heat distribution network (of any scale from single building to district heat)? If so, please list the identified networks.

No

7b. If the development will fall within the vicinity of a (C)CHP/heat distribution network, will the proposed development connect to it or be connection-ready? If not, please set out a clear justification.

N/A

7c. Is the development within a Heat Priority Area? If so, is a (C)CHP or heat distribution network proposed as the primary source of energy for the development? If not, please set out a clear justification.

No

7d. If a new (C)CHP or heat distribution network is proposed, is it designed in accordance with the CIBSE Heat Networks Code of Practice? If not, please provide a clear justification.

N/A

8. Low and zero carbon energy

8a. If the scheme includes the provision of low and zero carbon technologies, provide details of the proposed energy systems here including: type of technology, location of installation and predicted energy yield.

An air source heat pump will be installed to heat the under floor matrix for the extension.

9. New buildings: Carbon reduction calculation

9a. Will the proposed scheme deliver any new buildings (net or gross)?

No

9b. If the answer to 9a is yes, please complete the following carbon reduction calculation template in part 2b.

N/A

Part 2b: Carbon reduction calculation

For guidance on how to complete this table, see section 'Error! Reference source not found.' in section Error! Reference source not found. of the SPD. Add more rows as appropriate.

1. Reference	2. Target Emission Rate (TER)	3. Dwelling Emission Rate (DER) or Building Emission Rate (BER)	4. % carbon reduction from TER
e.g. Plot 1	e.g. 17.2	e.g. 13.4	e.g. 22.09%