

## 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:	Mr & Mrs T Wood		
Agent's name:	Rick Mills – Direct Design		
Site Address:	8 Ennismore Avenue, Guildford		
	GU1 1SP		
Application reference (if known):			
Description of proposal: (e.g. total and types of units/floorspace)	SINGLE STOREY REAR EXTENSION FOLLOWING DEMOLITION OF REAR ADDITION, SINGLE STOREY FRONT BAY EXTENSION & PORCH CANOPY ROOF		
Questionnaire prepared by: (name and qualification/job title)	Rick Mills BSc		
Signature of above:			
Energy information prepared by: (name and qualification/job title):			
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 'Resources, materials and waste' 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.

No, the proposed work will predominantly involve cavity masonry and new materials, where demolition of existing masonry the rubble is to be crushed and retained on site for reuse as hardcore/patio base

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.

Yes, existing masonry and concrete will be reused as hardcore where appropriate. Existing roof tiles will be set aside for resale.

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

Removed materials will be sorted on site and sent to the relevant recycling as appropriate.

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

Materials will be ordered just in time and handled carefully to prevent the likelihood of damage on site. Where possible, materials will be ordered from suppliers that accept returns of unused materials and packaging. Waste materials and packaging will be sorted on site for recycling. Off cuts will be collected and reused across the site where possible.

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

Where possible, transport emissions associated with material sourcing will be minimised.

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

FSC certified timber will be used throughout construction, rendered blockwork and rubber roof covering are designed to be long wearing and low maintenance. These will reduce occupation / operational carbon through their material lifespan and can be re-used in the future.

2. Low energy design: landform, layout, building orientation, massing and landscaping (Policy D2 1c and 2). See 'Site layout, landscaping and urban form' and 'Building design' 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. <u>This information should align with the energy data provided in parts 2a and 2b of this questionnaire.</u>

Yes. The building fabric will be designed to meet the current building regulations with U-Values as set out under Part L as a fabric first approach

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.

No, as this is largely extension work to the existing building we are generally tied into the orientation of the existing building. Where possible use of solar receipts will be made

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

The proposed extension will have large openings to provide good levels of natural light minimising the need for artificial lighting during the day.

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

The arrangement of windows to the existing house will remain, as these are position to the front and rear it will provide adequate cross flow ventilation when required.

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

No plans have been confirmed at this stage

# 3. Water efficiency (Policy D2 1d). See 'Water efficiency' 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 As an existing property, it is not intended to replace all elements to meet 'new build' water efficiency targets

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

N/A As an existing property, it is not intended to replace all elements to meet 'new build' water efficiency targets

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

Garden water butts will be provided

# 4. Measures that enable sustainable lifestyles for building occupants (Policy D2 1e). See 'Measures that enable sustainable lifestyles for building occupants' 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.

An area has been retained for home working avoiding the need to commute.

Replacement windows & doors will meet modern thermal performance standards & Building Regulations Approved Document Part L

Smart metering will be installed with thermostatic radiator valves (TRV)

# 5. Climate change adaptation (Policy D2 4 and P4). See 'Climate change adaptation' 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.

Yes. The existing thermal mass of the building will retain coolness from overnight cooling. Cooling will be achieved through the opening of existing windows and new door openings to release any heat that has been absorbed during the day. This will create a more comfortable dwelling during the hotter summers and severe heatwaves, therefore reducing the likelihood of overheating.

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

No significant change to existing

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

No change to existing

#### 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.

N/A

### 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.

N/A

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.

N/A

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.

#### 9. New buildings: Carbon reduction calculation

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

N/A

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

# Part 2b: Carbon reduction calculation

For guidance on how to complete this table, see section 'Questionnaire Part 2b: Carbon reduction calculation' in section 6 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%