

## **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.

## Part 1: Applicant details

Applicant's name:

Runnymede Homes Ltd and Godolphin homes Ltd

Agent's name:

Simon Grainger

Site address:

Hooke Farm, Effingham Common, Effingham, Leatherhead, KT24 5JE

Application reference (if known):

Description of proposal (e.g. total and types of units/floorspace):

Erection of 2 x 2 bed dwellings following demolition of existing non-agricultural buildings

Questionnaire prepared by (name and qualification/job title):

Morena Congia Kernan / Technical Manager

Signature of above:

Morena Congia Kernan

Energy information prepared by (name and qualification/job title):

Nick Gill / CfSH Assessor, BPEC & ATTMA Engineer / Pebble Energy

Signature of above:

Nick Gill

## Part 2: Sustainable design, construction, and climate change adaption

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.

Yes, through the use of: concrete building blocks with recycled aggregates, local recyclers for road base and patios, engineered wood products, re-used topsoil.

1.b. 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, where possible, excavation material will be re-used on site as hardcore.

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

Yes, although it is unlikely that mineral waste will be present on site, a site waste management plan will be in place to ensure that all waste that leaves site are recycled and reused wherever possible.

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

Yes, through segregated waste and recycling areas.

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

Yes, through the use of road base materials and ready mixed concrete and possibly more to be confirmed during construction.

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

Yes, all timber will be sourced from FCS certified sources. Most building materials such as bricks, blocks, mortar and plasterboard will be sourced from suppliers with verified responsible sourcing certification BES 6001 or equivalent.

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.

2.a. 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.

Yes, through an energy efficient building fabric which exceeds minimal Part L requirements as listed on the Energy Statement.

- 2.b. 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.

Yes, the low-rise construction will maximize solar receipt which at the same time will be optimized thanks to the orientation of each of the two dwellings.

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

Yes, please refer to architects internal layout.

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

Yes, Natural cross ventilation is proposed. The dwellings' energy design is expected to result in low risk summertime overheating.

- 2.e. 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 'Water efficiency' in the sustainable design and construction guide in section 5 of the SPD.

- 3.a. 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.

Yes, the scheme is proposed to meet water efficiency of 110L per person per day.

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

Yes, through reduced flow taps and showers, dual flush toilet cisterns and water efficient energy appliances such as washing machines and dishwashers.

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

Yes, water butts connected to rainwater pipes.

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.

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

Yes, bicycle storage with external sockets will be available to facilitate the use of bicycle for commute and transport.

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.

5.a. 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 development has been designed to meet current building control standards and provide energy efficient houses that ensure a comfortable temperature all year round.

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

Yes, the site is in Flood Zone 1 (low risk of flooding) with no anticipated chances of extreme flood events but permeable paving and the soft landscaping will be maximised.

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

Yes, the site is in Flood Zone 1 (low risk of flooding) with no anticipated chances of extreme flood events but sustainable drainage system will be designed.

6. Any further information

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

Use of air source heat pumps as zero carbon hot water and heating source.

## Part 2a: Energy

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

7.a. 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

7.b. 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

7.c. 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

7.d. 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

8.a. 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.

Air source heat pumps are proposed as the only heating source. Please refer to the energy statement to further energy saving solutions applicable to this site.

### 9. New buildings: Carbon reduction calculation

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

Yes, No. 2 dwellings proposed.

9.b. 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
Plot 1	12.95	4.88	62.3%