



MERCIER & THOM
ENERGY AND BUILDING COMPLIANCE

ENERGY, CLIMATE CHANGE AND SUSTAINABILITY STATEMENT

Project Address: 23 Dwellings, The Copse, Worthing Road, Horsham

Date: 06/02/2026



Project – The Copse 23 New Dwellings

1.0 INTRODUCTION

Further to your instruction, we have prepared this Sustainability Appraisal in support of the planning application for the proposed development of 23 new residential dwellings at The Copse, Worthing Road, Horsham.

The purpose of this document is to demonstrate how the proposals respond positively to the principles of sustainable design, energy efficiency, and climate change mitigation in accordance with the Horsham District Planning Framework (HDPF) and the Council's Sustainable Design and Construction Supplementary Planning Document (SPD).

This appraisal follows the same structure and approach as previously submitted sustainability documentation for the site, ensuring continuity for the Local Planning Authority while reflecting the revised residential nature of the scheme.

The strategy aligns with:

- HDPF Policy 33: Energy and Water
- HDPF Policy 35: Climate Change
- The National Planning Policy Framework (NPPF)

1.1 Scope of Document

This document comprises the Sustainability and Energy Statement and should be read alongside other application documents including the Planning Statement, Design and Access Statement, Flood Risk Assessment, Transport Statement, and Ecology Report where applicable.

SAP calculations have been prepared for each dwelling to assess Building Regulations compliance and to explore future low- and NetZero-carbon opportunities.

2.0 TRANSPORT

The site is located within an established urban area with access to local services, facilities, and public transport infrastructure.

Bus routes are located approximately 0.1 miles from the site along Worthing Road, with Horsham railway station approximately 2.4 miles away, providing regional connectivity.

Car parking, cycle storage, and electric vehicle charging infrastructure are proposed in accordance with the approved layout and local authority standards, supporting sustainable travel choices and reducing reliance on fossil-fuelled vehicles

(HDPF Policy 40: Sustainable Transport).

3.0 FLOOD RISK ASSESSMENT / SUSTAINABLE DRAINAGE (SUDS)

Surface water drainage for the development will be designed in accordance with best practice and informed by specialist flood risk and drainage assessments.

Where appropriate, Sustainable Drainage Systems (SuDS) will be incorporated to manage surface water runoff and reduce flood risk, consistent with local and national policy

(HDPF Policy 36: Flooding and Drainage).

4.0 RECYCLING & WASTE

The development will provide appropriate internal and external waste and recycling storage facilities in accordance with Horsham District Council requirements.

During construction, best practice waste management procedures will be implemented to minimise waste generation and maximise reuse and recycling of materials, in line with the objectives of the Sustainable Design and Construction SPD.

5.0 BIODIVERSITY (INCLUDING BIODIVERSITY NET GAIN)

The proposed development incorporates opportunities for soft landscaping and planting to enhance on-site biodiversity.

Landscape proposals will be informed by specialist ecological assessment where required and will seek to deliver biodiversity enhancements appropriate to the site context
(HDPF Policy 31: Biodiversity and Geodiversity).

6.0 POLLUTION

- 6.1 Materials and Air Quality

Low-VOC materials, finishes, and paints will be specified to protect internal air quality. Heating systems will be low-NOx, and refrigerants with low global warming potential will be prioritised
(HDPF Policy 33; Sustainable Design and Construction SPD).

- 6.2 External Lighting

External lighting will be designed to minimise energy use and light pollution. Low-energy fittings will be controlled by photocells and timers to avoid unnecessary operation
(HDPF Policy 33).

- 6.3 Noise and Dust

Construction noise and dust will be managed in accordance with best practice and any relevant planning conditions, with mitigation measures implemented as required.

7.0 ADAPTATION & CLIMATE CHANGE (INCLUDING OVERHEATING)

The development has been designed to respond positively to future climate change impacts, including increased summer temperatures.

Overheating risk has been considered in accordance with Building Regulations Part O, with passive design measures incorporated at an early stage
(HDPF Policy 35: Climate Change).

Measures include:

- Orientation-led design and controlled glazing proportions
- Openable windows to all habitable rooms to allow natural ventilation
- Use of thermal mass within the construction to moderate internal temperatures

These measures reduce reliance on mechanical cooling and support long-term occupant comfort.

8.0 WATER CONSERVATION

Water efficiency measures have been incorporated in accordance with Building Regulations Part G and Horsham District Council guidance

(HDPF Policy 33: Energy and Water).

All dwellings will achieve an internal water consumption rate of no more than 110 litres per person per day, through the use of:

- Dual-flush WC systems
- Low-flow taps and showers
- Water-efficient appliances

This approach delivers meaningful water savings without the need for rainwater harvesting or greywater recycling systems. (Please see annexed site Part G water calculation provided)

9.0 DESIGN & ENERGY EFFICIENCY

The proposed dwellings adopt a fabric-first approach, with enhanced insulation towards passive standards, good airtightness, and efficient dwelling forms to minimise energy demand.

High-efficiency air source heat pumps provide low-carbon space heating and hot water, supporting compliance with Building Regulations Part L 2021 and aligning with local authority climate change objectives.

10.0 ENERGY & CARBON STATEMENT

SAP calculations have been prepared for each dwelling to assess regulated energy and carbon performance against the Building Regulations Part L 2021 Target Emission Rate (TER).

For each dwelling, regulated carbon savings have been calculated by comparing the Dwelling Emission Rate (DER) from the proposed compliant SAP assessment against the corresponding Target Emission Rate, with savings calculated on the basis of treated floor area.

On a site-wide basis, the proposed development achieves an average regulated carbon reduction of 66.73% compared with the Building Regulations Part L 2021 Target Emission Rate. This equates to a total regulated carbon saving of approximately 18601.43 kg CO₂e per annum across the 23 dwellings. These reductions are achieved through a fabric-first approach, efficient building services, and the use of low-carbon heating systems (HDPF Policy 33; HDPF Policy 35).

Table 8.3 Water efficient consumption levels by component type

Component	Performance levels (quoted numbers are minimum performance required to achieve the level)						Unit
	Base	1	2	3	4	5	
WC	6	4.5	4	3.75	3.5	3	Effective flush volume (litres) (see Definitions)
Wash-hand basin taps	10	8	6	5	4	3	litres/min
Showers	12	10	8	6	5	3.50	litres/min
Baths	200	180	160	140	120	100	litres
Urinal (2 or more urinals)	7.50	6	3	1.50	0.75	0	litres/bowl/hour
Urinal (1 urinal only)	10	8	4	2	1	0	litres/bowl/hour
Greywater and rainwater system	0%	0%	0%	25%	50%	75%	% of WC or urinal flushing demand met using recycled non-potable water
Kitchen tap: kitchenette	10	8	7	6	5	5	litres/min
Kitchen taps: restaurant (pre-rinse nozzles only)	10.30	9	8.30	7.30	6.30	6	litres/min
Domestic sized dishwashers	17	13	13	12	11	10	litres/cycle
Domestic sized washing machines	90	60	50	40	35	30	litres/use
Waste disposal unit	17	17	0	0	0	0	litres/min
Commercial sized dishwashers	8	7	6	5	4	3	litres/rack
Commercial or industrial sized washing machines	14	12	10	7.50	5	4.50	litres/kg

Specifying components for a building in accordance with the above levels might result in the corresponding number of BREEAM credits being achieved. However, the component specifications above are akin to thresholds between each level. Therefore caution should be exercised when defining a component specification for a BREEAM-assessed building using exactly the same levels as the threshold levels. It is recommended that, where Wat 01 credits are targeted, the performance of a particular building's component specification is verified using the BREEAM Wat 01 calculator before committing to a particular specification and ordering or installing components. This will provide greater assurance that the component specification achieves the targeted number of BREEAM credits.

11.0 FUTURE NET ZERO CARBON PROVISION

A separate future Net Zero SAP scenario has been prepared to demonstrate the development's capability to achieve operational Net Zero carbon performance for regulated energy use.

This future scenario is supported by approximately 97.40 kWp of on-site photovoltaic generation, together with the provision of 10 kWh of battery storage per dwelling.

The inclusion of battery storage enables increased on-site utilisation of renewable electricity, reduces grid import during peak periods, and supports the long-term delivery of operational Net Zero carbon performance.

This Net Zero scenario is presented as a future provision, separate from Building Regulations compliance, and demonstrates that the development has been designed to be Net Zero ready.

12.0 CONCLUSION

The proposed development of 23 new residential dwellings at The Copse demonstrates a robust and policy-compliant approach to sustainable design, energy efficiency, and climate change mitigation.

Through a fabric-first strategy, efficient low-carbon heating systems, water-efficient design, passive overheating mitigation measures, and provision for future on-site renewable energy generation, the scheme aligns with the objectives of the Horsham District Planning Framework, the Sustainable Design and Construction SPD, and national planning policy.

If you have any queries with the above, then please do not hesitate to call or email me back.

Greenest Regards

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Award Winning Energy Efficiency Consultant: MCIPHE MIDHEE, DipDEA, DipOCDEA, DipNDEA, DipGDA Sustainability Champion: BREEAM AP, BREEAM Assessor, Code for Sustainable Homes Assessor

Winner- LABC (East Anglia) Residential Construction Professional of the Year 2019 Winner- West Midlands Energy Efficiency Consultant of the Year 2017

Highly Commended- West Midlands Energy Efficiency Champion of the Year 2017 Shortlisted- National Energy Consultant of the Year 2017

In the last twelve months, Mercier and Thom Ltd has helped save over 234 million kg CO2.

Plot	PV orientation	PV kW peak required for Future NetZero
Plot 01	East	4.5
Plot 02	East	5.2
Plot 03	East	5.2
Plot 04	East	5
Plot 05	East	5
Plot 06	East	5
Plot 07	East	4
Plot 08	East	5
Plot 09	South	3
Plot 10	South	3
Plot 11	South	4.3
Plot 12	South	3.6
Plot 13	East	3.6
Plot 14	West	3.5
Plot 15	West	3.5
Plot 16	West	3.5
Plot 17	East	4.5
Plot 18	South	3.2
Plot 19	South	3.2
Plot 20	West	4.8
Plot 21	West	5.4
Plot 22	East	5.4
Plot 23	South	4
TOTAL PV =		97.4