

Our ref: JT/32559

31 May 2022

BY EMAIL ONLY: [REDACTED]

Mr S Hail
Carriage House
Burton Park Road
Petworth
West Sussex
GU28 0JS

Dear Stuart

RE: Drainage Statement for Converted Outbuilding

1.0 Introduction

- 1.1 The proposed development comprises the conversion and extension of an existing stable / barn outbuilding to include a one-bedroom dwelling for holiday accommodation and additional vehicle storage.
- 1.2 The site is located within Flood Zone 1, with a low probability of flooding.
- 1.3 The plan roof area of the existing outbuilding is approximately 102m². An adjacent concrete apron presents an impermeable area of some 66m². The total impermeable footprint of the existing outbuilding therefore totals approximately 168m².
- 1.4 Under the proposals the concrete apron will be removed. The roof area of the new development will be approximately 190m², representing a net increase of 22m² (13%).

2.0 Surface Water Drainage

- 2.1 With reference to the British Geological Society (BGS) mapping, local superficial soils comprise Sussex Rother Terrace Deposits with varying fractions of clay and sand. These overlay the sandstone-based Folkestone Formation bedrock. Borehole logs near to the site appear to corroborate this, indicating variable drift deposits overlying sand-based beds.
- 2.2 Consideration will therefore be given to managing surface waters by infiltration using sustainable drainage techniques. Infiltration testing to the requirements of BRE 365 will be undertaken at the site to confirm this is viable.
- 2.3 The proposed development includes a driveway running the full length of the building for recreational vehicle access. If the testing informs that infiltration techniques are viable then consideration should be given to discharging surface waters from the roof into a soakaway located within or under the driveway. The driveway should be of permeable construction. All infiltration systems shall be designed to accommodate a 1:100 year storm event with an additional 40% allowance for predicted climate change. There will be no material increase in surface water runoff relative to equivalent greenfield levels.

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3.0 Foul Water Drainage

- 3.1 The existing outbuilding is not currently served by foul water drainage. Foul drainage will be required to serve the proposed one-bedroom dwelling.
- 3.2 Foul drainage from the converted outbuilding will discharge to an existing septic tank which also receives flow from a separate building (Woodend). The septic tank is located approximately 1m higher and 20m away from the proposed development. Foul waters will be directed to this septic tank via a domestic scale foul water pumping station and rising main. A preliminary assessment indicates that the peak dry weather flows [6 DWF] for the outbuilding will be in the order of 0.1 l/s and therefore will not overload the existing facility.

4.0 Maintenance

- 4.1 All new drainage systems shall be managed and maintained to provide a level of performance that will not compromise any future flood risk.

I trust that this drainage statement meets your requirements for now. Should you require any further information then please do not hesitate to contact me.

Yours sincerely

[REDACTED]

James Teuten MEng(Hons) CEng MIMechE ACGI
Associate
for ARCHIBALD SHAW

