**MR JAMES SPOONER**

17 VALEBRIDGE ROAD, BURGESS HILL, WEST SUSSEX, RH15 0RA

# Compensatory Storage, Sequential Test and Evacuation Plan

September 2025
(Revised December 2025)

eas ltd
Environmental Assessment Services Ltd

# REPORT DATA SHEET

| Requirement | Data |
|---|---|
| Report Reference | 831/MrJamesSpooner/17ValebridgeRoad/CS |
| Date | September 2025 |
| Client | Mr James Spooner |
| Report type | Compensatory Storage, Sequential Test & Evacuation Plan |
| Purpose | Planning Application |
| Revisions | December 2025 |
| Prepared by | Eur Ing Malcolm McKemey BSc (Hons), CEng, CEnv, MICE, MCIWEM, MIEnvSc<br>  <br>Signed |
| Approved by | Xanthe Lyford<br>  <br>Signed |

**MR JAMES SPOONER**

17 VALEBRIDGE ROAD, BURGESS HILL, WEST SUSSEX, RH15 0RA

**Compensatory Storage, Sequential Test and Evacuation Plan**

September 2025
(Revised December 2025)

## CONTENTS



## APPENDICES

**MR JAMES SPOONER**

17 VALEBRIDGE ROAD, BURGESS HILL, WEST SUSSEX, RH15 0RA

**Compensatory Storage, Sequential Test and Evacuation Plan**

September 2025
(Revised December 2025)

## 1. THE SITE & PROPOSED DEVELOPMENT

1.1 The site comprises an existing workshop/storage building and surrounding, mainly paved, area at the rear of No. 17 Valebridge Road in the northern part of Burgess Hill. The site area is approximately 800 $m^2$. The Ordnance Survey (OS) map reference for the site is TQ 32198 20213. The site elevation is approximately +33.5 m OD. See Appendix A, Figure 1: Site Location Plan and Figure 2: Existing site layout.

1.2 According to the British Geological Survey (available online), the site lies on Cretaceous Weald Clay. Online Environment Agency (EA) groundwater mapping identifies the site to lie on unproductive strata. The site does not lie within a groundwater source protection zone.

1.3 The land at the site and beyond falls gently to the southwest, until it meets the London – Brighton railway line which is elevated on an embankment 40 m to the west of the site. There is an underpass beneath the embankment some 100 m to the north of the site.

1.4 It is proposed to demolish the existing workshop/storage building and construct a two-storey, four bedroom dwelling with associated garage and bin storage. See Figure 4.

## 2. FLOOD RISK ASSESSMENT

2.1 A detailed flood risk assessment (FRA) was carried out by GeoSmart Information Limited in January 2025. This FRA confirmed that the site lies within Flood Zone 1 (low risk of fluvial flooding) and at low risk of surface water (pluvial) flooding. The site lies just within the 1 in 1000 year return period (0.1% Annual Exceedance Probability - AEP) pluvial flood event. Adding the current recommended climate change allowance (45% in this catchment) for the likely life of the proposed development, would place the site within the 1 in 100 year return period (1% AEP) pluvial event. See Figure 5.

2.2 The Environment Agency Flood Prediction data states that the site is not considered at risk of groundwater flooding or flooding from reservoirs. There is no known history of flooding at the site and no history of sewer flooding.

2.3 The GeoSmart Information Limited FRA considered the loss of pluvial flood plain volume resulting from the proposed development to be trivial and not worth providing compensatory storage for. However, it is understood that Mid Sussex District Council has requested compensatory storage.

## 3. COMPENSATORY STORAGE

3.1 The site was visited on 20 August 2025 in order to examine the site and surrounding topography plus existing drainage arrangements. See Appendix B: Site Photographs.

3.2 The loss of pluvial flood plain volume is based on the 1% AEP flood depth at the site and the difference in the plan area of the proposed development compared with the existing plan area of the workshop/storage buildings.

3.3 The plan area of the existing workshop storage buildings is 69 m2, and the plan area of the proposed house and garage is 96 m2. The depth of the water during the future 1% AEP event is not given in the FRA, but based on the floor level recommendations given in the FRA report, the absolute maximum depth would appear to be 0.2 m. Thus, the compensatory storage volume required would appear to be (96 – 69) x 0.2 = 5.4 m3.

3.4 The compensatory storage may be provided in the form of lowering the overall site ground level by 3 cm.

3.5 The alternative to lowering the site by a relatively trivial amount would be to construct the proposed new house with a suspended floor, with air bricks beneath the floor (and damp-proof course) level, permitting flood water to enter (and drain out of) the void below the floor. This would reduce the effective post development volume taken from the surface water flood plain to below the existing. The proposed volume would comprise only the area of the external and internal load bearing walls above the footings.

3.6 A secondary concern is that the proposed development would cause additional obstruction to existing surface water flow paths (see Figure 3). From the existing layout shown in Figure 2 and the proposed layout shown in Figure 4, it is apparent that any change in flow path obstruction should be of minimal significance. However, from 3.5 above, the proposed permeable sub-floor walls will permit some flow beneath the building and will reduce any flow path obstruction.

## 4. THE SEQUENTIAL TEST

4.1 The purpose of the Sequential Test is to encourage more vulnerable development to be located in Flood Zones 1 or 2 and a location at low risk of flooding from other sources and moved away from Flood Zone 3 and high risk of flooding from other sources.

4.2 Residential housing is classified as *more vulnerable* under National Planning Practice Guidance (NPPG) 2022. Location within Flood Zone 3a or higher risk of flooding from other sources would also require the Exception Test to be applied.

4.3 In this case the site lies in Flood Zone 1 and at low-moderate risk of flooding from surface water and other sources. The location is within an area presently developed for housing. On this basis, the Sequential Test would be satisfied.

4.4 Speculative estimation of climate change would move the location into the moderate risk of surface water (pluvial) flooding within the predicted life of the development (100 years).

4.5 The GeoSmart FRA report stated that, under the latest version of the NPPG the project would not be subject to the Sequential or Exception Tests. However, we understand that the Sequential Test must be satisfied for all vulnerable development (housing is classified as "more vulnerable").

4.6 The FRA report recommends that the finished floor level at the proposed residence should be at least 300 mm above ground level. However, where a design flood level has been established (in this case +33.7 m OD), finished ground floor level should be 600 mm above design flood level where there are ground floor bedrooms, or 300 mm above design flood level where there are no ground floor bedrooms.

4.7 The FRA recommended that ground levels should be arranged to fall away from the buildings and the overall pattern of water flow offsite to the south and west should be preserved.

4.8 The Mid Sussex District Council memo of 22 May 2025 appears to suggest that part of the site could be considered to lie in Flood Zone 3b (the functional fluvial flood plain). If this were the case, only water compatible development could be considered (reservoirs, flood protection works, swimming pools, etc.). More vulnerable development could be considered in Flood Zone 3a, subject to the application of the Exception Test. In this case, the proposed development would be considered a windfall site addressing local housing need.

## 5. EVACUATION PLAN

5.1 Superficially, there should be minimal need to evacuate the site. Even in the worse surface water flood scenario, residents would remain safe within their house until any flooding subsided.

5.2 In the event that the residents wished to evacuate from the site, there would be a short wade through shallow water (less than 200 mm deep) to Valebridge Road pavement and then a short walk north directly out of the area at risk of flooding.

5.3 The likely worse case flood depth would not prevent ambulances or other emergency services attending the site.

5.4 The Environment Agency operates a flood warning service for all areas at risk of flooding, and this is available on their website https:/www.gov.uk/check-flood-risk.

## 6. SURFACE WATER DRAINAGE AND FOUL SEWERAGE

6.1 The FRA recommended that new surface water drainage should be sustainable (SuDS). However, the proposed development will not increase the impermeable area of the site and will provide the opportunity to slightly reduce it by adding areas of soft landscaping.

6.2 The proposed development should not increase the risk of flooding downstream from the site. There is existing surface water drainage at the site, comprising gullies in the surfacing and downpipes discharging into the same system. It is assumed that this will continue with the proposed development. There is also a gravel fringe along the north side of the site that provides a surface water drain.

6.3 Foul sewage will discharge to the public foul sewer in Valebridge Road.

6.4 Additional SuDS options which could be incorporated into the development include permeable paving, a rain garden and rainwater harvesting

## 7. CONCLUSIONS & RECOMMENDATIONS

7.1 The Flood Risk Assessment carried out by GeoSmart Information Limited concluded that the loss of flood plain volume was trivial and no compensatory storage was required. However, in the worse case scenario, the loss has been calculated at 5.4 m3. Compensatory storage could be provided by slightly lowering the site ground level, however, it is recommended that having a suspended ground floor with drained underfloor void in the proposed new house would provide any required compensatory storage.

7.2 The site is in Flood Zone 1, and at low-moderate risk of surface water flooding. No other flood risks appear to be significant. The site lies within a developed residential area. The Sequential Test is deemed to be satisfied and there is no need to apply the Exception Test.

7.3 There would appear to be minimal requirement for an evacuation plan. Future residents would remain safe within their house. In the worse case, a short and shallow wade would bring residents to Valebridge Road, and dry land would be accessible immediately to the north on Valebridge Road. Emergency services vehicles should be able to access the site at all times.

7.4 Existing connections are available for both surface water and foul sewage drainage. The proposed development will not increase flood risk downstream from the site. Additional SuDS options which could be incorporated into the development include permeable paving, a rain garden and rainwater harvesting.

☆ ☆ ☆ ☆ ☆ ☆ ☆

# APPENDIX A: FIGURES

**Figure 1: Site Location Plan**
**Figure 2: The Site as Existing**
**Figure 3: Probable Surface Water Flow Paths**
**Figure 4: Proposed Development**
**Figure 5: Environment Agency Surface Water Flood Map**


Reproduced from the Ordnance Survey 1:25000 scale map with permission. Licence No 100005508

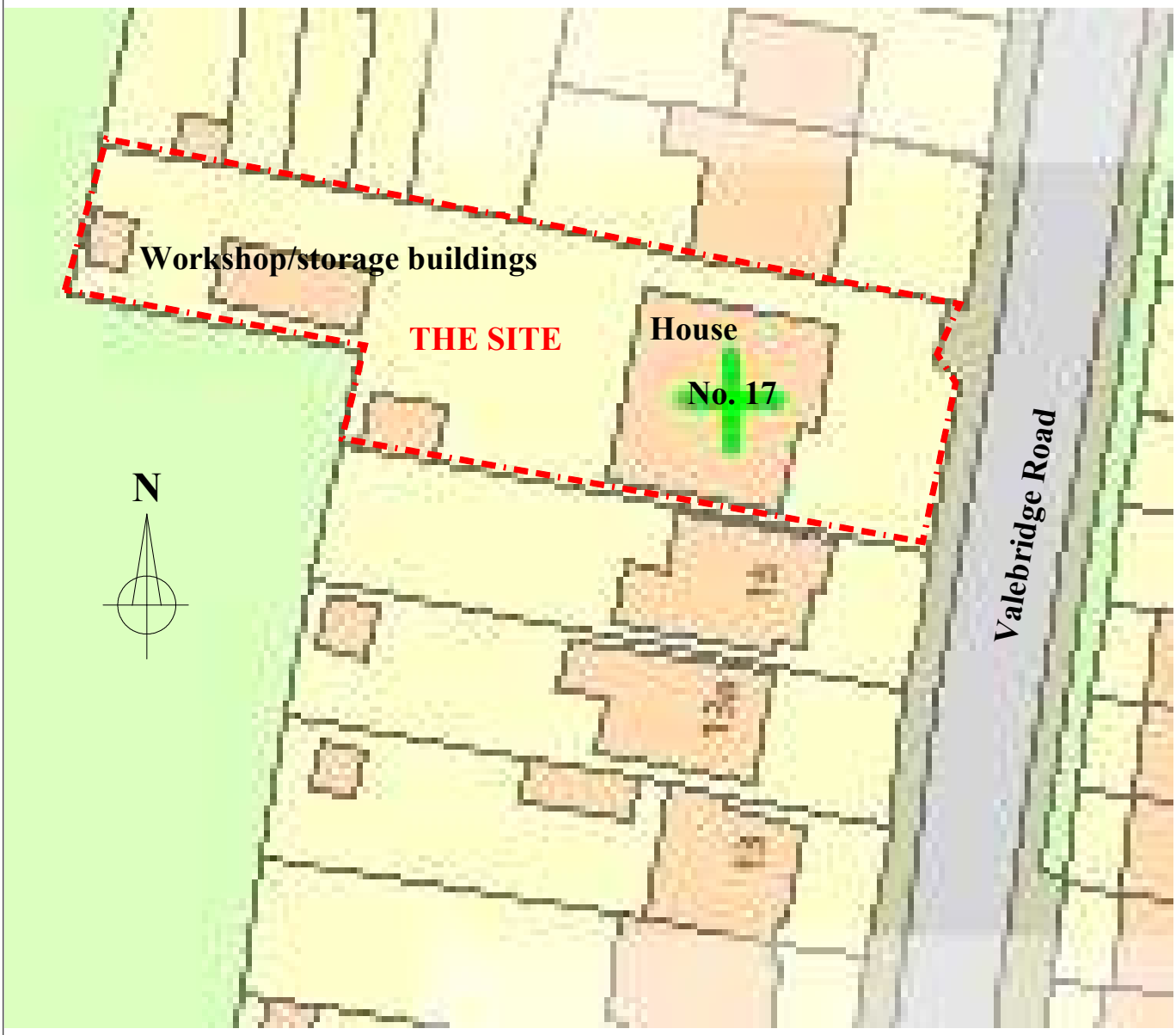
Scale as shown

**MR JAMES SPOONER**

17 VALEBRIDGE ROAD, BURGESS HILL, WEST SUSSEX, RH15 0RA

**Figure 1: Site Location**

September 2025




0 10 20 30 40 50

metres



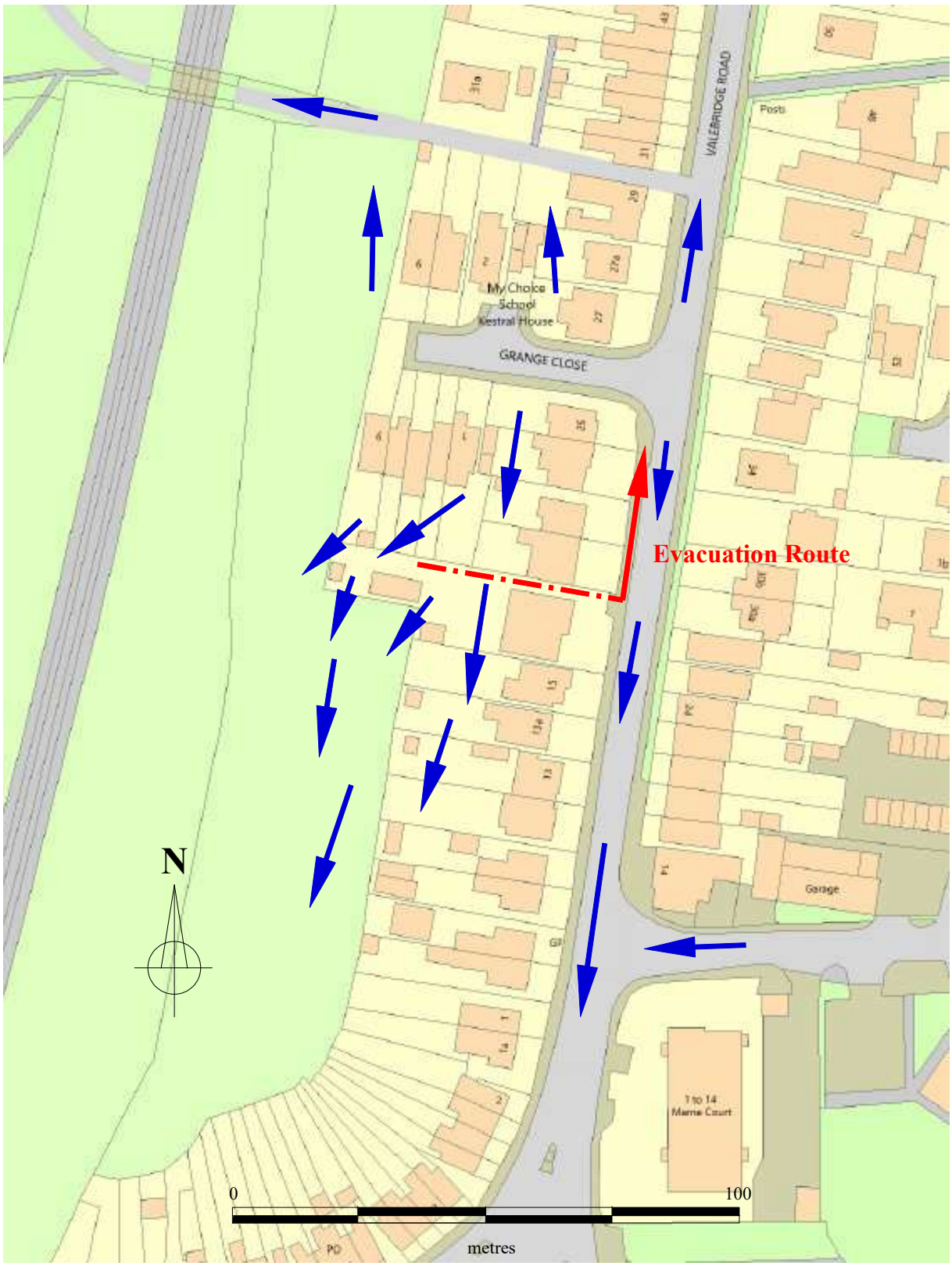
Scale as shown

**MR JAMES SPOONER**

17 VALEBRIDGE ROAD, BURGESS HILL, WEST SUSSEX, RH15 0RA

**Figure 2: Existing Site Layout**

September 2025




Reproduced from the Ordnance Survey 1:1250 scale plan with permission. Licence No 100005508

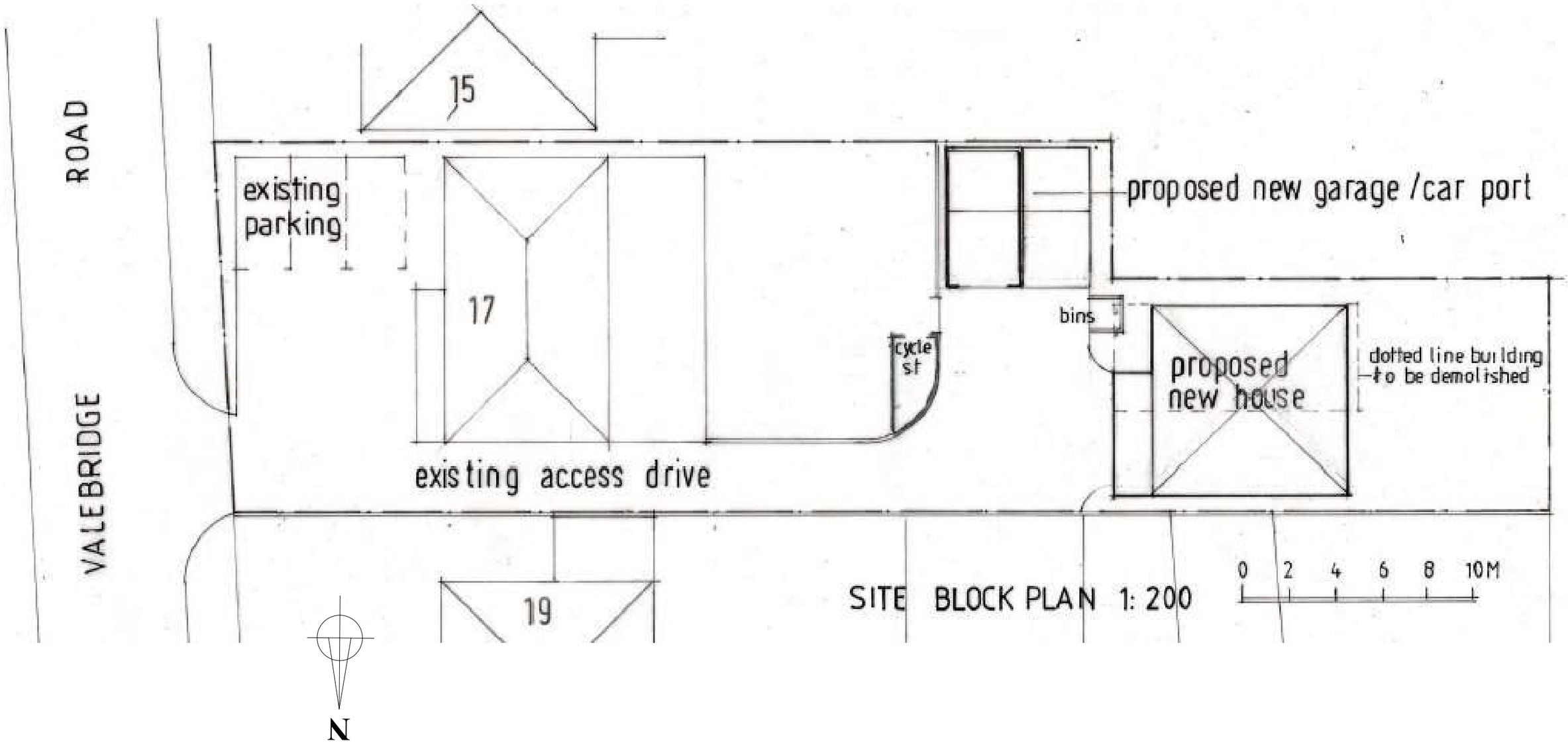
Scale as shown

**MR JAMES SPOONER**

17 VALEBRIDGE ROAD, BURGESS HILL, WEST SUSSEX, RH15 0RA

**Figure 3: Probable Surface Water Flow Paths**

December 2025




Scale as shown

**MR JAMES SPOONER**

17 VALEBRIDGE ROAD, BURGESS HILL, WEST SUSSEX, RH15 0RA

**Figure 4: Proposed Development**

September 2025


Scale as shown

**MR JAMES SPOONER**

17 VALEBRIDGE ROAD, BURGESS HILL, WEST SUSSEX, RH15 0RA

**Figure 5: Environment Agency Surface Water Flood Map**

December 2025

APPENDIX B
**Site Photographs**

Photo 1: The site

Photo 2: The site, rear view.

Photo 3: Rear yard area.

Photo 4: Existing drainage.

Photo 5: Gravel edge drain adjacent to fence.

Photo 6: Land outside site falling to the west.

Photo 7: Evacuation route to Valebridge Road.

Photo 8: Evacuation route from the site north on Valebridge Road. Note highway high point.

APPENDIX C
**Southern Water Sewer Plans**


(c) Crown copyright and database rights 2025 Ordnance Survey AC0000808122 | Scale: 1:1250 | Date: 22/09/25 | Wastewater Plan A4

Data updated: 21/08/25 | Map Centre: 532209,120209 | Our Ref: 1886287 - 1 | Powered by digdat

Foul Gravity Sewer
Combined Gravity Sewer
Culverted Water Course or Treated Effluent
Surface Water Gravity Sewer
Rising Main, Vacuum or Syphon
Combined Outfall
Surface Water Outfall
Foul Outfall
Surface Water Inlet
Combined Pumping Station
Surface Water Pumping Station
Foul Pumping Station
Water Treatment Works
Section 104 Area
Building Over Agreement Area
Foul Manhole
Combined Manhole
Surface Water Manhole
Side Entry Manhole, Demarcation Chamber, Dummy Manhole or Surface Water Soakaway

malcolm@easltd.co.uk

17 Valebridge Road

WATER for LIFE from Southern Water

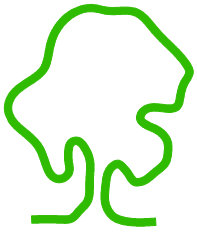
The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2025 Ordnance Survey AC0000808122 .This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.

| Manhole Reference | Liquid Type | Cover Level | Invert Level | Depth to Invert |
|---|---|---|---|---|
| 1005 | F | 0.00 | 0.00 | |
| 1007 | F | 0.00 | 0.00 | |
| 1101 | F | 32.24 | 30.42 | |
| 1201 | F | 33.03 | 30.08 | |
| 1202 | F | 34.62 | 29.83 | |
| 1203 | F | 34.91 | 29.86 | |
| 1204 | F | 34.24 | 29.34 | |
| 1205 | F | 34.81 | 33.83 | |
| 1206 | F | 0.00 | 0.00 | |
| 1209 | F | 0.00 | 0.00 | |
| 1210 | F | 0.00 | 0.00 | |
| 1211 | F | 0.00 | 0.00 | |
| 1212 | F | 0.00 | 0.00 | |
| 1213 | F | 0.00 | 0.00 | |
| 2002 | F | 32.89 | 30.65 | |
| 2003 | F | 33.09 | 0.00 | |
| 2010 | F | 33.82 | 31.75 | |
| 2011 | F | 32.78 | 32.78 | |
| 2102 | F | 32.74 | 31.97 | |
| 2103 | F | 32.76 | 31.53 | |
| 2104 | F | 32.71 | 30.72 | |
| 2201 | F | 35.23 | 32.40 | |
| 2202 | F | 34.35 | 0.00 | |
| 2203 | F | 31.82 | 0.00 | |
| 2204 | F | 35.06 | 33.25 | |
| 2205 | F | 35.25 | 33.05 | |
| 2206 | F | 0.00 | 0.00 | |
| 2207 | F | 0.00 | 0.00 | |
| 2208 | F | 0.00 | 0.00 | |
| 2209 | F | 0.00 | 0.00 | |
| 2211 | F | 0.00 | 0.00 | |
| 2301 | F | 34.38 | 30.95 | |
| 2302 | F | 34.50 | 0.00 | |
| 3101 | F | 33.93 | 31.76 | |
| 1153 | S | 0.00 | 0.00 | |
| 1250 | S | 34.78 | 33.37 | |
| 1251 | S | 34.87 | 33.24 | |
| 2053 | S | 32.41 | 0.00 | |
| 2166 | S | 33.27 | 31.80 | |
| 2253 | S | 34.94 | 33.12 | |
| 2254 | S | 35.05 | 32.95 | |
| 2255 | S | 35.20 | 32.86 | |
| 3253 | S | 36.07 | 34.68 | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

APPENDIX D
**Environment Agency Flood Risk Summary**



eas ltd
Environmental Assessment Services Ltd
Unit 4B, The Courtyard, Holmsted Farm, Staplefield Road, Cuckfield,
West Sussex, RH17 5JT
Phone : +44 (0) 1444 882552 email : info@easltd.co.uk
web site : www.easltd.co.uk