

Land West of Church Lane, Climping

Outline application for the erection of up to 300 dwellings & ancillary development comprising open space, a building within use class D1 (Non- Residential Institutions) of up to 875 square metres net, a building for A1 (Shops) use having a floor area of up to 530 sq. metres net, together with open space & ancillary works, including car parking & drainage arrangements, with appearance, landscaping, layout & scale wholly reserved for subsequent approval. The access detail, showing the points of access to the development, & indicated on Bellamy Roberts drawings numbered 4724/ 004 & 4724/ 005 are access proposals to be determined at this stage of the application. For the avoidance of doubt all other access detail within the site is to be determined as a reserved matter at a later stage.

Council Ref: CM/ 1/ 17/ OUT

Appeal by Mulgrave Properties LLP

Professional Advice Note prepared by

Syann Brooks, BA (Hons), MA, of Archaeology South-East

1 Qualifications and experience

- 1.1 I have worked as a professional archaeologist since 2001 and as an archaeological consultant since 2003, firstly with AOC Archaeology (London) and then from 2007 as a Senior Consultant, with ENTEC UK, a multi-disciplinary environmental consultancy (London). I formed my own company in 2010 – SB Heritage Services Ltd, although I have been employed by Archaeology South-East (a registered organisation with the Chartered Institute for Archaeologists (CIfA) as a Senior Archaeologist (Historic Environment), since 2015.
- 1.2 I was awarded a First Class degree in Archaeology from Bristol University in 2001 and an MA in Advanced Field and Analytical Techniques for Archaeology in 2003 from University College London (Institute of Archaeology).

Professional Advice Note

2 Context

- 2.1 In response to the request for further information by Historic England pertaining to the potential effects of the proposed development located at land west of Church Lane, Climping, upon the scheduled ancient monument referred to as 'Medieval earthworks E and SE of St Mary's Church' - List entry Number: 1005828, I have been instructed to review information provided by Dr Stephen Richard Buss and from Ambiental.

3 Complimentary Information

- 3.1 The scheduled monument (SM) referred to as 'Medieval earthworks E and SE of St Mary's Church' (List entry Number: 1005828), is a deserted medieval village, which at its nearest point, is located c. 70m from the development site. For perspective, the eastern end of the monument is 110m from the River Arun, in which the water level fluctuates by about 4.9m twice daily.
- 3.2 The listing description (updated in 2014) provided by Historic England¹, states that 'The earthworks include rectangular house platforms, depressions and banks up to 1.2m high. An area of flint metalling is considered to be a trackway associated with the village. A trial cutting has revealed brick and stone walling of buildings as well as medieval pottery sherds on the site. It is in close proximity to the parish church of St Mary's and is associated with the deserted village of Climping. In 1999, an archaeological watching brief nearby at Church Farm Cottage recorded pits of medieval and post-medieval date, medieval pottery and animal remains.:

¹ <https://historicengland.org.uk/listing/the-list/list-entry/1005828>

- 3.3 The listing description describes the sites as a 'village, comprising a small group of houses, gardens, yards, streets, paddocks, often with a green, a manor and a church, and with a community devoted primarily to agriculture.:
- 3.4 The listing information states that the SM survives well and that it has been largely undisturbed. As a result, the SM is predicted to have a high degree of potential for archaeological investigation, 'containing below-ground archaeological and environmental information relating to the construction, use and occupation of the site and its relationship to the surrounding landscape.:
- 3.5 The preservation of such material is dependent on the burial environment. During burial, archaeological objects are prone to biological, chemical and physical decay. The nature of the extent of the changes they undergo will depend on the burial environment and the chemical and physical structure of the material constituting the object. Major factors influencing decay during burial are: water, oxygen, acidity and alkalinity (pH), temperature and the oxidative or reductive power of the environment as a whole.²
- 3.6 Burial conditions in Britain are generally damp and vary in the extent of oxygen content. Since oxygen and moisture are necessary for most decay processes to occur, decay can be minimal in environments which are either low in oxygen or lack moisture. Most organic material totally disappears in aerated damp soils but survive in water logged environments due to limited biodeterioration. Low oxygen levels also favour the survival of metals.³
- 3.7 Decay is a complex process. As a general guide, the following can be assumed:
- ¿ Materials of inorganic origin (including metals) often survive well in a wide range of burial environments.

² Watkinson, D. & Neal, V. (2001) First Aid for Finds

³ Watkinson, D. & Neal, V. (2001) First Aid for Finds

Organic materials are more likely to perish completely because they are often more prone to attack and rapid breakdown by biological agents (biodeterioration).

3.8 Due to the lack of excavation at the SM site, very little is known in respect of the below ground archaeological remains. Brick and stone walls and medieval pottery sherds were recorded during a 'trial cutting' at the site, and as stated in the SM Listing, in 1999, an archaeological watching brief was conducted at Church Farm Cottage, which recorded medieval and post-medieval pits, medieval pottery and animal remains. These remains are considered likely to be associated with the deserted medieval village, and likely indicative of the extent of the former village⁴.

3.9 Based upon this information, it is reasonable to assume a similar level of preservation at the SM site, which is located on the same geological sequence as that of Church Farm Cottage.⁵

3.10 The level of preservation of the buried archaeological finds and deposits at the site is dependent on many factors as summarised above. However stable the burial environment, decay is a natural, unavoidable and ongoing process.

4 Assessment Review

4.1 Dr Buss has been instructed to provide evidence that indicates whether or not the proposed development will change groundwater flow patterns around the proposed development site, to an extent that puts the scheduled ancient monument, 'Medieval earthworks E and SE of St Mary's Church, Climping', at risk.

4.2 His findings are set out in the document entitled - Report 2018-002-034-002 Climping.docx.

4.3 Dr Buss states that:

[illegible]

_As well as the topographic features there may be buried structural remains, pits and ditches, likely filled with local soils and possibly skeletal remains: .

I am in agreement with this statement. The scheduled listing description states that a _trial cutting has revealed brick and stone walling of buildings as well as medieval pottery sherds on the site⁶:

4.4 There is no further available information on the nature of the below ground components of the scheduled monument but Dr Buss' aforementioned statement, is in line with professional judgement.

4.5 Dr Buss states in his assessment:

_It seems most likely that, if there was to be any hydrogeological impact of the development, there might be a decrease in recharge (paragraph 5.2.3). This could lead to a drop in water table level in an isolated groundwater system.

4.6 However, the development site and scheduled ancient monument are to be built above a thick layer of permeable chalk aquifer (paragraph 4.2.3). The near-surface groundwater is in continuity with the deeper groundwater (paragraph 5.1.2) so any reduction in recharge at the site will be compensated for by additional flow from the South Downs. Hence the balance will be maintained, within the wider aquifer, between groundwater levels on the South Downs and the groundwater levels at discharge points (watercourses and the coast):

4.7 He further states that:

_Gravel-filled service trenches offer the benefit of locally lowering the water table during

⁶ <https://historicengland.org.uk/listing/the-list/list-entry/1005828>

periods of high rainfall / recharge. Hence these should be seen as a potential benefit to ameliorate the potential impacts of high groundwater levels on the scheduled ancient monument. Regardless, any impact outside of the boundary of the site is still expected to be minor.:

4.8 Dr Buss concludes as follows:

_I conclude that there are no feasible impacts of the development that might lead to a significant change in the groundwater regime below the scheduled ancient monument.:

4.9 In light of the findings of the above, I support the conclusions of Dr Buss and would agree that as the proposed development will not cause significant changes to the ground water regime below the scheduled monument area, there will be a negligible effect resulting from the development to the Scheduled Monument.

4.10 Ambiental have been instructed to provide evidence that indicates whether or not the proposed development will change the Flood Risk and Surface Water Drainage at and around the proposed development site, to an extent that puts the scheduled ancient monument, 'Medieval earthworks E and SE of St Mary's Church, Climping', at risk.

4.11 The findings of the assessment undertaken by Ambiental are set out in the document entitled - Proof of Evidence DPDC June 2018 V1-1.

4.12 The assessment produced by Ambiental states that the water table in the vicinity of the scheduled ancient monument is shallow and varies seasonally (4.4.2), and notes that there is no data that describes the baseline variability of groundwater level beneath the scheduled ancient monument (4.4.5).

4.13 In order to offset the potential risk of flooding exacerbated by high groundwater levels (4.4.3) Ambiental have recommended, given the size of the development, to incorporate

Sustainable Urban Drainage Systems and propose that discharge of surface water via a hydrobrake should run into the local drain, which currently manages the runoff from the site (4.4.7), located c. c. 150m south of the SM area (4.4.8).

4.14 Ambiantal state that the recommended mitigation measures such as the ponds on site and flow restrictors have been incorporated into the proposal to prevent flood risk elsewhere from a surface water source. Based upon this, the proposed development at the site should not cause an increase or decrease to the existing waterflow rate in the area of the scheduled monuments (4.4.9) and state that in conclusion, the impact to the scheduled ancient monument is negligible (5.1.6).

4.15 In light of the findings of the above, I support the conclusions drawn by Ambiantal and would agree that as the proposed development should not cause an increase or decrease to the existing waterflow rate in the area of the scheduled monument, there will be a negligible effect resulting from the development to the Scheduled Monument.

5 Conclusion

5.1 The research conducted in the assessments by Dr Stephen Buss and by Ambiantal, indicate that it is highly unlikely that the proposed development will cause significant changes to the hydrogeological regime at the site of the Scheduled Monument. Based on these findings, I conclude that the proposed development is highly unlikely to adversely affect the existing conditions of the burial environment of the subsurface archaeology or the above ground archaeology at the Scheduled Monument.