Representations raised on behalf of Mr & Mrs Norman Norman
To Matter 6: Housing Allocations Policy HSG02 Chapel Road,
Smallfield, in advance of the Examination in Public into the
Regulation 22 Version of Our Local Plan: 2033 January 2019

September 2019

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MATTER 6: HOUSING ALLOCATIONS

HSG02: Chapel Road, Smallfield

6.16 In terms of flood risk, is the allocation of the site justified in respect of the Sequential Test and Exceptions Test? Has it been demonstrated that a housing development at the site would be safe for its lifetime, taking account of the vulnerability of its users, without increasing flood risk elsewhere?

In considering this question, my clients have engaged the services of HR Wallingford, an established specialist hydraulic modelling company involved in all aspects of flood risk. They have carried out a three stage process in which they have undertaken an initial assessment providing preliminary advice to my clients, Mr & Mrs Norman Norman in the form of a flood hazard assessment. Stage 2 has involved a review of the Environment Agency’s flood model, concentrating on flood flows and the way in which culverts, channel and flood plains have been represented. A third stage involved the preparation of a detailed hydraulic model which has been used to provide an independent check of the Environment Agency’s modelling to determine the risk of flooding in the area affecting my clients’ site.¹

The results of the flood hazard assessment identified that the Environment Agency’s hydraulic model known as TUFLOW, based on its own software, which predicted flooding in Smallfield and in particular the Park Chesterfield site, may have overestimated the amount of flooding in the same settlement, and a review of the modelling was recommended. The cause of the potential overestimate of flooding revolved around the upstream boundary of the TUFLOW model being close to the culvert inlet. In this regard, part of the Weatherhill Stream which flows through the village is in a culvert where it passes close to the Park Chesterfield site. It was found that water flows out of the Weatherhill Stream further upstream during flood periods, passing to the east of Smallfield. Flood water that overflows from the stream would therefore not reach the culvert inlet.

The second stage reviewed the Environment Agency’s model. It was found that the modelling generally appears to be reasonable, but three areas of concern were identified. These are:

- The upstream boundary of the model;
- The representation of the culvert;
- The flood flows that have been used.

The modelled upstream boundary did not account for water flowing out of Weatherhill Stream to the east of Smallfield. This means that too much water would flow through Smallfield in the modelling, and the amount of flooding would be overestimated by the model.

¹ My clients, HR Wallingford, specialist hydraulic modelling experts, and the writer are willing to share this information at a meeting with the Environment Agency and LPA prior to Policy HSG02 being considered, with a view to arriving at an agreed position regarding the Flood Zones affecting the Park Chesterfield site. Similarly, this information can be made available to the Inspector if required.
The culvert size in the modelling is greater than the actual size of the upstream section, where detailed data was available. This means that more water could flow through the culvert in the model and the amount of flooding would be underestimated by the model.

The modelling uses lower peak flood flows than predicted by the HR Wallingford analysis. The reason for the underestimation appeared to be the flows used in the modelling are intended to cause critical flood conditions at a location downstream of Smallfield, but not in Smallfield itself. This means there will be higher peak flood flows than those used in the model, and the amount of flooding would be underestimated by the model.

Thus, three factors were identified, one of which (the upstream boundary of the model) could lead to an overestimate of flooding, and the other two factors (the culvert and flood flows) causing an underestimate of flooding. These differences were assessed in the stage 3 exercise comprising an independent check of the EA’s model.

An independent hydraulic model was constructed of Weatherhill Stream as it passes through Smallfield. The model included the stream, upstream of the village, the culvert through the village, and the stream, downstream of the village, with the resultant flood plain represented in the model. Flooding in Smallfield was modelled using the new model referred to as the ICM model, and the results were compared with the existing model referred to as the TUFLOW model. The models differed in two important respects.

a) The flood inflows used in the TUFLOW model are much less than those used for the ICM model.

b) The upstream boundary of the TUFLOW model is close to the culvert inlet and does not include a section of the stream where flood water overflows the banks and flows to the east of Smallfield.
The two differences counteract each other, with the result that flood flows at the culvert inlet are similar. The modelling of the culvert through Smallfield differs between the two models, with the TUFLOW model revealing slightly higher flows within the culvert, although the culvert flow is a small proportion of the total flood flow. The amount of water which exceeds the capacity of the culvert inlet is therefore similar for both models, as is the amount of flooding.

The 100-year flood outline predicted by the ICM model at Park Chesterfield is very similar to the boundary of Flood Zone 3 on the Environment Agency Flood Map used for planning purposes, indicating that the model results agree with the boundary of Flood Zone 3 on the flood map. The ICM model predicts a much small flood extent at Park Chesterfield for the 1000-year flood compared with the Environment Agency’s Flood Map used for planning, indicating that the eastern side of Policy HSG02 should be in Flood Zone 1, and not Flood Zone 2. This has important implications when considering question 6.16 posed by the Local Plan Inspector.

The predicted depth of flooding in the Park Chesterfield is small, (less than 0.2m) for all the flood events modelled. This means that if development were to be permitted for the whole site, the raising of threshold levels to 0.2m above existing ground level, would prevent the flooding of dwellings, at the same time allowing them to be accessed during flood events. This is also a further significant factor which it is suggested should be taken into account when considering question 6.16.
It follows from these conclusions and applying Diagram 2 relating to the application of the Sequential Test for Local Plan preparation, referred to in paragraph 0.20 Reference ID: 7-020-20140306 of the NPPG concerning “Flood Risk and Coastal Change”, that the Sequential Test is passed in respect of the eastern part of the Park Chesterfield site, and only the western part of the site requires further consideration in terms of both the Sequential and Exceptions Tests.

The Sequential Test aims to steer new development to areas with the lowest probability of flooding, namely Flood Zone 1. Where there are inadequate available sites in the same flood zone, an LPA should take into account flood risk vulnerability and wider sustainability objectives, in considering reasonable available sites in Flood Zone 2, before examining available sites in Flood Zone 3, and applying the Exceptions Test if required.2

The LPA in their “Flood Risk and Development Allocations – Site Selection Process” January 2019 have considered 37 residential sites identified as having a low risk of flooding. 21 of these sites were rejected, having regard to other evidence base considerations, leaving only 16 sites remaining which were considered sequentially preferable. The 16 sites had a capacity of 870 homes, being insufficient to meet the needs of the Council’s total housing delivery target in Policy TLP01. The next stage undertaken by the Council was to consider other sites within Flood Zones 2 & 3, of which there were 6 potential residential sites, one of which is the Park Chesterfield site given Reference No. SMA 015 Chapel Road. 4 sites in Flood Zone 1, but at risk of flooding from other sources, were also considered.

2 Paragraph 101 of the NPPF 2012; paragraph 019 Ref ID 7- 019-20140306 of the NPPG “Flood Risk and Coastal Change”, and Diagram 2 of the same NPPG apply.
A Level 2 Strategic Flood Risk Assessment was undertaken by JBA Consulting offering a high level flood risk assessment of 10 sites suggested for different uses. It was considered entirely possible to preserve Flood Zones 2 & 3 as public open space or other open land category, with development restricted to Flood Zone 1, in 5 of the 10 sites examined, including 2 for which the proportion of the site outside Flood Zone 1 was less than 1%.

Any consideration of the Park Chesterfield site owned by my clients in the context of the Sequential and Exceptions Tests should start from the viewpoint that it is one of a limited number of sites which are not situated in the Metropolitan Green Belt or affected by any other sensitive land use designation. In this regard, it is unusual. The site is situated in the centre of Smallfield, a Tier 2 settlement defined as a “Local Centre”, within walking distance of public transport services, shops, primary education, community and local healthcare facilities. Smallfield enjoys local shops, a post office, convenience store and pharmacy, with Burstow Primary School also located in the village. It follows that in the context of Tandridge DC’s administrative area, Park Chesterfield occupies a highly sustainable location.

The site’s release for residential development provides an opportunity to redevelop land occupied by a scaffolding company and a contractor supplying bricklayers, plant and equipment to national housebuilders, thereby leading to improvements in terms of its appearance and overall visual amenity. The site is seen as an open hardstanding area, largely devoid of built development, where there are a number of storage sheds, and other dilapidated buildings of no architectural merit. The proposal is required to be considered in the context of making full and effective use of available land within a rural settlement for much needed housing provision. The assessment matrix forming part of the Sustainability Appraisal for Smallfield, reveals that on balance, those sustainability objectives which score positively, outweigh those which score negatively, and for this reason, as well as the contents of previous paragraphs, the site should be allocated, subject to the Exceptions Test, given that the proposed use is defined as “more vulnerable” in flood risk terms.

The Exceptions Test set out in paragraph 102 of the NPPF 2012 requires the site to demonstrate that flood risk to people and property can be managed satisfactorily allowing development to proceed where suitable sites with a lower risk of flooding are not available. It comprises two parts: firstly, to demonstrate that it provides wider sustainability benefits to the community which outweigh flood risk; and secondly, it will be safe for its lifetime without increasing flood risk elsewhere and possibly reducing flood risk overall.

The above factors demonstrate that clear benefits arise from an assessment of the wider sustainability objectives associated with the Park Chesterfield site, which it is contended outweigh flood risk. This conclusion is supported by the results of the three stage exercise undertaken by HR Wallingford, which shows the eastern part of the site as falling within Flood Zone 1, and not Flood Zone 2, indicating that the flood risk assessment of my clients’ land, on which the LPA rely, is unsound.
To the extent that the hydraulic modelling exercise undertaken by HR Wallingford reveals that the predicted depth of flooding over the whole site is small, being less than 0.2m, means that by raising the slab levels of any dwellings above that height would not involve any flood risk, and neither would it increase flood risk elsewhere. In these circumstances, people could remain in their own homes, albeit that access considerations would allow occupants to exit their dwellings, whilst allowing emergency services to reach the development during design flood conditions. Notwithstanding these considerations, and if thought necessary, the proposed development could be registered with the Environment Agency for free Floodline Warnings Direct Services which would benefit the occupants of the site during and after construction.

These comments have been made in spite of the fact that since Mr & Mrs Norman Norman first acquired the Park Chesterfield site in November 1993, it has to their knowledge never flooded. This opinion is contrary to the comments made in the Level 2 Strategic Flood Risk, being the underlying reason why my clients considered it necessary to employ a reputable specialist hydraulic modelling company conversant with fluvial matters.

In these circumstances, the Park Chesterfield site the subject of Policy HSG2 should be allocated for residential purposes in the Local Plan, removing the restriction on the number of dwellings to 15 units as expressed in the same policy.

6.17 Are there any constraints which would mean that the site should not be considered to be deliverable or developable as per Footnotes 11 & 12 to the Framework?

Park Chesterfield has been in the freehold ownership of my clients continuously for a period in excess of 25 years. It offers a suitable location for development, and there is a realistic prospect that housing will be delivered within five years. Policy HSG02 occupies a site outside the Metropolitan Green Belt in the centre of a Tier 2 semi rural service settlement, occupying a suitable location for housing development. It is available, and could be viably developed. Hence there are no issues surrounding its deliverability or it being considered developable.

6.18 Are the requirements for financial contributions consistent with national policy for planning obligations and conditions as set out in the Framework?

It has been noted that the LPA in the Schedule of Proposed Main Modifications to Policy HSG02 have deleted the provision of a pedestrian crossing on Redehall Road from the heading “Infrastructure”. This modification is not reflected in the latest iteration of the Infrastructure Delivery Plan. Assuming the Proposed Main Modification finds its way as a deletion to the infrastructure requirements of “adopted” Policy HSG02, would result in the same policy being consistent with national policy for planning obligations. This would remove the objection to the Regulation 19 version of Our Local Plan: 2033 set out in the letter of 6th November 2018 from this practice, where it relates to infrastructure provision.
6.19 Are the proposed modifications necessary for soundness?

The planning history of the Park Chesterfield site reveals that it has been the subject of a number of various types of commercial use stretching back to a period to the Appointed Day. In this way, it is acknowledged that there is a need as part of any proposed residential redevelopment of the Park Chesterfield site to assess whether the same land is contaminated, and if it is, remediation prior to the commencement of any development would be necessary. In this way my clients have no objection to the addition to the Proposed Main Modification where it relates to contamination land issues.