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From: Geoff Gibbs [REDACTED]
Sent: 31 May 2019 16:04
To: Andrew Wood; Planning
Cc: John Oldfield; Angmering Parish Council
Subject: Planning Application Reference A/45/19/PL

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Demolition of existing buildings (car show room, workshops and Phares Courtledge) and erection of 19 dwellings, a convenience store, a community building, public toilets and associated car parking and landscaping - This application affects the character and appearance of the Angmering Conservation Area.

Had I not had concerns about flood risk issues associated with this site, I would not have made a representation on this proposal.

I **object** to the Application for the following reasons. If these matters are satisfactorily resolved, I will be happy to withdraw my objection. I would be happy to elaborate on the detail if necessary.

Reason 1 – The site is at risk of flooding, has already flooded, a feasible scheme is available to reduce the impact of flooding to the site and works undertaken recently have not reduced the likelihood of further flooding because of the limited conveyance capacity of the culvert.

The submitted Flood Risk Assessment (FRA) includes information from the Environment Agency (EA) relating to high probability Flood Zones on the site such that some of the proposed development will require application of the Exception Test.

The FRA includes information from West Sussex County Council (WSCC) as the Lead Local Flood Authority (LLFA). It says, in answer to the question:- *'Please confirm if you are aware of any historic flooding within the confines of the site?' 'Yes, in 2012 flood depths in the area was around 1 metre deep.'*

I witnessed both the 2002 and 2012 flooding, observed the area and took a number of photographs, which are available.

Within the FRA the LLFA says:- *'We believe the existing surface water drain in Water Lane may once have been an open watercourse.'*

I assume this refers to the Main River, Black Ditch, which flows north of the site in a highway culvert system. Elsewhere in the Application documents there are extracts of 1:2500 scale Ordnance Survey maps which show that the 'open watercourse' was culverted under the highway between the 1911 and 1932 editions of these maps.

Summarising, the EA flood zones demonstrate the very high theoretical flood risk to the site and this is confirmed by the flood depth information from the LLFA which can be confirmed by myself and others.

It is now appropriate to comment upon the impact of various recent works to the culvert system.

The 2002 flooding occurred when the screen on the upstream end of the highway culvert system became blinded, flows bypassed the screen and water flowed along Water Lane past and onto the Chandlers site.

Following the 2002 flooding the trash screen was significantly improved to reduce the risk of it blinding.

Thus, in the 2012 flooding event, the screen did not present an obstruction to flow. What happened was that flow escaped from a manhole on the culvert system on the Black Ditch upstream of the site due to inadequate conveyance capacity in the culvert system downstream of that manhole. I was able to examine the open watercourse Black Ditch downstream of the culvert and confirm that water levels there were not affecting upstream water levels. Recently this trash screen has been further enhanced. The water that escaped from this manhole flowed southwest along Water Lane past and onto the Chandlers site. I have appended two photographs I took in 2012 showing water escaping from the culvert manhole and then flowing along Water Lane towards the Chandlers site.

I reproduce 5.2.1 iii from the FRA:-

'Recent remedial works by Angmering Parish Council include a monitoring system and culvert improvement works. The fluvial flood risk to the site is presumed to be associated with blockage or surcharge of the culvert, and these remedial works should reduce the risk of flooding to the site.'

I believe these 'remedial works' were not undertaken by Angmering Parish Council. I feel that if the culvert itself had become blocked this would have been identified. If the 'remedial works refer to the provision of the effective upstream trash screen along with the webcam these are welcome but **do not** alter the fact that the critical issue causing downstream flooding is the inadequate culvert conveyance capacity.

An effective upstream online flow-balancing scheme would significantly reduce the probability of this site flooding. Fundamentally, such a scheme would restrict the flow through the culvert system to its capacity storing excess flow until it can be safely released. This has been suggested previously in connection with proposed developments that may add to flows in the Black Ditch. For this site, this matter is critical because the site itself has flooded from the Black Ditch.

This development should not be permitted until this matter is resolved.

Reason 2 – There is no evidence that site-specific investigation to examine infiltration performance has been undertaken.

Hierarchically infiltration should be the first option considered to deal with surface water on site. The site has been vacant for more than two and half years, which could have allowed for site investigation and two winters of of ground water levels monitoring. In this regard, I believe I am concurring with your Council's Engineer.

Reason 3 – The potential flood risk impact of the development upon others.

The Application Form states that the development will not increase flood risk to others.

The FRA states that the Exception Test will be required for 'more vulnerable' development in Flood Zone 3a.

The FRA states that:- *'The risk of surface water flooding will be mitigated by raised floor levels to provide freeboard*' In applying the Exception Test, the impact upon others is fundamental. For the site and its environs, the critical event is when the conveyance capacity of the Black Ditch highway culvert is exceeded. The raising of parts of the site will displace floodwater to elsewhere and offsite and while such water level increase will be small it will, nonetheless occur.

The solution must be to implement the upstream on-line flow balancing scheme to enable this redevelopment to safely take place and deliver wider benefits to the community.

I have not used your on line system because I could not include the three evidence photographs.

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