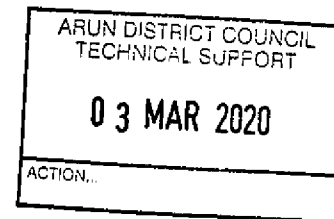


01 March, 2020

Planning Department
Arun Civic Centre
Maltravers Road
Littlehampton
BN17 5LF



Dear Sirs,

Objection to Planning Application BN/18/20

I note with some concern this application made by, or on behalf of, Barratt-David Wilson Homes for variation of Condition 15 applying to permission EG/29/13 relating to 40 residential dwellings at the former Brooks Nursery site with access from Barnham Road.

I have reviewed the application documents on your website and am surprised to note that the Supporting Statement from Southern Water referred to in the Barratt Homes application letter appears to be unavailable. As this is obviously a key part of the application I find this extremely disturbing, and hope that there is nothing in the statement which might be detrimental to the application but hidden from public view.

I would like you to consider the following objections to this application when determining the outcome:

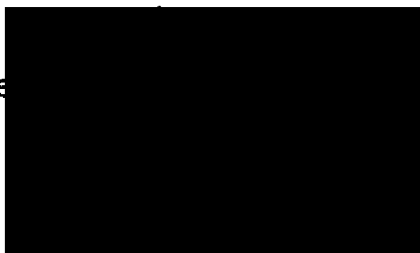
1. The intention appears to be to pump waste water through an 8" (200mm) main into an existing 6" (150mm) main. The cross sectional area (CSA) of a 150mm pipe is 9/16 (about 56%) of the CSA of a 200mm pipe. As a result the level of effluent in the smaller pipe would be proportionately higher than that in the larger pipe. As an example: without allowing for the effect of the enhanced flow rate of the pumped effluent compared with gravity induced flow, if the 200mm main were 1/3 full where it met the existing 150mm main then the existing main would be filled to over 50%. This, of course, is without the additional effluent from the existing properties on Elm Grove South. If the pumped 200mm section were half full the 150mm main would become over 80% full, which is obviously unacceptable. At times of high inflow rates this could lead to unacceptable load on the system leading to backing up of the system into existing properties.
2. I can see no mention in the limited public information made available of any capacity in the modified system: i.e. if the new pumping station was to fail, or power was unavailable, there is no capacity in the system to store the effluent pending completion of repairs. This could result in backing up of the system into the properties on the development.

3. At the point where the diameter reduces from 200mm to 150mm there will be inevitable acceleration of the effluent flow which could result in unacceptable turbulence and resultant erosion and eventual failure of the pipes.
4. The reason for the imposition of condition 15 to decision EG/29/13 was that the existing main sewer in Barnham Road, into which the sewer from Elm Grove discharges, is incapable of accepting any more effluent without the danger of surcharging during storm conditions. Since this time I understand that planning guidance has changed, and it is now incumbent on the waste water authority to provide a system to suit the need. However, Southern Water have carried out no remedial work on the system that I am aware of, and therefore no additional effluent should be permitted to discharge into the main in this area of Barnham Road until such work has been completed, independently inspected, and the system certified fit for purpose.
5. If surcharging of the sewers returns there will be a resulting threat to public health, especially if this surcharging were to occur in the Elm Grove area as this is the location of the St. Philip Howard High School, and many households have young families. I believe that this is an unacceptable risk that the Council should not take.

Rather than compromise the safe and hygienic occupation of the many homes already in this neighbourhood by being permitted this cost-cutting option, I believe that the developer should finance the installation of a new main direct to the main treatment works unless the locally installed treatment plant can be made operational.

Finally, albeit reluctantly, I would point out that in my initial objection to this development I averred that this type of treatment system was unsuitable for the proposed development, despite assurances from the developer. Subsequent events show that my concerns were correct, and I would recommend that the Council bear the unsuitability of this type of system in mind when considering any future development where this kind of treatment solution is a part of the proposal.

Yours Sincere



Alan N. Champion CEng CMarEng FIMarEST FHEA