

Madam Inspector

Thank you for allowing me to speak to the Inquiry today.

I will submit the evidence of those responsible for the Battledown Estate infrastructure portfolio. One is Derek Long, resident of Overdale House on Ashley Road, a former Royal Navy officer and Trustee for Infrastructure, who cannot attend for health reasons. The other submission is my own, as I am now the Trustee for infrastructure and drainage. My own company lays and buries cable and pipe on the seabed and I am an engineer with an extensive understanding of below ground infrastructure.

Evidence of Derek Long

Battleground Unstable Ground.

I was a Trustee for Battledown for 22 years and responsible for the 'Infrastructure' portfolio. The whole area of Battledown has a small amount of topsoil and broken limestone over solid clay.

The clay is of high quality. The Battledown Brickworks produced most of the bricks that built Cheltenham and only closed in the 1970's when the 200-foot pit was filled in with the town's rubbish. This pit is situated on the edge of the Ewan's Farm estate, just on the western boundary of the Battledown Estate.

When St Edward's new sports pitch was built in 1986, where previously Saxon strip farming and a pear farm had been, considerable soil was removed to level the ground. Our house is on the slope above the sports pitch and the lawn has dropped over a foot as the topsoil then subsequently slid over the clay base.

Throughout my time as a Trustee, the estate has been plagued by natural springs which come and go – the more so when the topsoil is removed and the clay underneath exposed. When the Gas Board re-laid pipe in Ashley Road, they cut into the clay and subsequently a spring welled up through the re-laid topsoil/tarmac and can form ice when freezing weather occurs.

To my direct knowledge, two houses have Springs which come and go in their basements. Castle Farm, my next door neighbour, had before renovation, an 18th Century cellar which regularly flooded with clear fresh water. A house on the very top of the junction between Ashley Road/Birchley Road has a permanent 24x7 pump running in the cellar to drain off the natural water.

A new property is currently being built two houses up in Ashley Road and has required 240 piles to break through the clay to bedrock. In the process the water table has been disturbed and our garden bank now runs with water across our drive. St Edward's has within the past three months dug out the drains in the sports fields below and to the side of our property. They are now running with water, such that debris overflowed onto the rugby/cricket pitch field.

My concern is that the proposal to build on the land accessible from Oakhurst Rise has exactly the same physical makeup. It already has a pond supplied by natural springs. Housebuilding and sewer drainage will, by its nature, cut through the topsoil into the clay. The underlying springs will then run between the clay and topsoil layer.

If Building Regulations demand, then pile driving could increase the breakthrough and the unpredictable development of natural springs.

The land in prolonged heavy winter rains could slip on the slope and water drainage would then change radically for the properties already constructed below, including the listed School Main building.

Yours sincerely,

Derek M Long (Derek.Long@cisa-ltd.co.uk)

Evidence of P Walker, current Battledown Infrastructure Trustee since 2015

I have a number of concerns about this proposal.

The proposed drains are dug in places to a depth of 10 meters. The soil is dense clay. This is unsound. The area disrupted by such drain installation will be significant.

- The ground will be unstable due to the presence of springs and the consequent potential for new shear interfaces underground
- There will be significant static crush pressure on the buried pipes
- Maintenance and access will be unfeasible
- There is no explanation as to how to protect tree roots from this level of disruption, given the intention for excavating to highly unusual depths compared with the norm for residential housing. The average depth for drains on Battledown is less than 0.5 metres -- not 10 metres.

The attenuation pond is situated next to a Kindergarten.

In any development, a methodology of pipe to pond¹ is not recommended, with best practice guides stating that this kind of drainage system can result in “unsightly, polluted and sometimes hazardous pond or basin features that offer little amenity or wildlife benefit.”

The best practice guide says that all SUDS features, including inlets, outlets and control structures, must be easily accessible and able to be easily maintained. No maintenance access is provided with this site. There is no vehicle access available and, as such, critical maintenance and safety work cannot be delivered. The system recommended requires maintenance every 3-12 months for its entire lifetime, with the addition of an Aqua Swirl, but no mention is made as to how someone will be able to gain access and clean it, removing the debris/pollutants that have collected off-site, no back-up safety system in case the system fails; just a grade 2* building, its grounds and, oh yes, a preparatory school flooded into the bargain.

On the 2018 application, the appellants drainage consult Simpson had a review from a third party geotechnical consultant who said SUDS will not work on this site² due to the dense clay soil, yet a SUDS system is now proposed !

Sir Michael Pitt’s independent review of the 2007 floods³, gave Cheltenham the likelihood of such an event as being 1 in 250 years; and yet we have had two more such events since, causing severe flooding of Battledown properties. Yet a 40% allowance is in this design, just 30 metres from a grade II* listed building.

The archaeological trenches dug in 2017 on this site will be evident to the inspector during her site visit, as the trenches and spring water are already causing slip and subsidence. Exactly as Mr Long has described in his evidence.

The Cheltenham Flood Action group have objected repeatedly to the many applications for development on this meadow-land (it’s very much worth a

¹ https://www.lbhf.gov.uk/sites/default/files/section_attachments/suds_design_and_evaluation_guide.pdf

² https://publicaccess.cheltenham.gov.uk/online-applications/files/F53281179CFBA7EE756F90F26584EF9C/pdf/18_02171_OUT-FLOOD_RISK_ASSESSMENT_NOTE-905702.pdf

³

<https://webarchive.nationalarchives.gov.uk/20100806203134/http://archive.cabinetoffice.gov.uk/pittreview/t hepittreview.html>

read), but they have said that their objections have been similar to banging one's head against a brick wall.

Given the nature of the Battledown estate's housing, on average there have been two demolition and rebuilds on the estate each year since I took on my role as Infrastructure Trustee. Within the Infrastructure remit, I oversee the estate roads, drains and general infrastructure, and various related issues that architects and builders come up with during their projects.

In January 2021 I was reviewing a new development on Battledown with Combes Everitt's⁴ senior architect. He noted the number of springs that they have encountered. The project had been delayed over 6 months and the additional costs involved (for one property) were in excess of £500k.

In the last 12 months we have encountered three new active springs running, introducing new challenges for estate infrastructure.

In the early 2000's Severn Trent installed a new water main on the Battledown estate and in 2019 Wales & West utilities installed new gas mains as part of a change from cast iron to plastic pipes.

Should you wish to inspect, you are able to see on Ashley Road, approximately 150 metres up from St Edward's Prep School, the patches on the road where, whilst digging at the connection points to each house, both Severn Trent and Wales West Utilities hit natural springs. (I have videos to show their clean flow of water, should you wish to see them).

We have been aware in recent years of the weather being the hottest in over a century; well, these springs run 24/7/365 and have been doing so ever since being disturbed over ten years, thus far, causing issues in the winter freezing, and damaging road surfaces year-round.

So, whilst being an engineer familiar with many of the issues raised during this application, I am also a homeowner, the owner of a house built near the top of the hill, with two cellars and a 10,000 gallon water tank under a room next to

⁴ The same architect for the development Mr Long references, as well as the architect for this proposed scheme.

the field. A house that, as stated in the 1875 sales literature in The Times, has “a plentiful supply of prime spring water”.

Mr Frampton stated to the last Inspector that the springs to Charlton Manor will be protected. At the next appeal he has denied that they even exist !

If Mr Frampton were to have looked, he would see houses on Battledown where the drains are not registered on Severn Trent’s maps. The foul water and surface water for Charlton Manor and Savoy House next door drain to the field – there is no map of the Victorian infrastructure laid after that.

Our house has flooded once due to the drains blocking. Fortunately the issue was our side of the boundary and could be rectified; but there was extensive damage due to cellarge and underground infrastructure being submerged. The kitchen floor is still subsiding as a direct consequence. Damage to the drainage infrastructure causes damage to homes. Piling in clay causes damage to homes; the vibration from a development on Ashley Road cracked windows in Charlton Manor 500 metres away.

I hope residents' detailed knowledge of this site will be viewed as more expert than the “comments for cash” that are relied on by the Applicant through much of this application.

I respectfully ask that once you have heard and seen the evidence you will reject this appeal.

Respectfully

Phil Walker

Battledown Trustee for Infrastructure

Owner of Charlton Manor, Battledown



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Our ref: BW/130

23 November 2016

FAO: Mr Robert Wilson, Senior Engineer

Dear Robert,

RE: LAND TO THE NORTH OF ST EDWARDS SCHOOL, BATTLEDOWN, CHELTENHAM

It is proposed to develop the above site to comprise a residential led scheme, although a definitive layout is yet to be finalised / made available. To aid your development of a Flood Risk Assessment and Drainage Strategy for the site, it is understood that you require an understanding of the ground conditions and infiltration potential. This letter therefore summarises the mapped geology, hydrogeology and provides 'local knowledge' concerning the infiltration potential based upon the expected ground conditions, in advance of being able to derive site-specific data from intrusive investigation.

Geology

British Geological Survey mapping sheet SO928E (1:10,000 scale, 1983) and online shows the site to be underlain by "bedrock" of the Lower Liass now called the Charnouth Mudstone Formation, typically comprising grey and khaki, plastic clays near-surface, which grade with depth to dark bluish-grey, fissured, shaly mudstones. There are no recorded superficial deposits across the site, and no mapped geological faulting or made ground.

There are no nearby, pertinent archive BGS borehole records, although this Practice has undertaken numerous ground investigations within the Battledown area of Cheltenham. One of these sites, located on Oakley Road some 475m to the north, verified the mapped ground conditions in recording "firm to stiff grey and khaki-brown mottled orange becoming dark blue-grey clay; becoming thinly laminated with fine mudstone lithoclasts; grading to weak becoming moderately strong, shaly mudstone below approximately 3m depth with occasional gypsum crystals".

