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**Willow Bee, Allington Lane, Eastleigh, SO30 3HP - F/23/95507
Drainage Statement**

Dear Sirs

Planning application F/23/95507 is a retrospective planning application for a replacement entrance gate, a frontage fence and some hardstanding in the gate area.

There are three planning policy areas to be considered with respect to surface water drainage:

- Water quantity
- Water quality
- Adverse flood risk impact elsewhere

A review of mapping for the site locality indicates the land falls to the northwest away from Allington Lane (Fig 1)



Fig 1: Extract from historic 1937-1961 1:25,000 map with local terrain contours and current aerial photograph underlay.

A review of British Geological Survey mapping indicates no superficial soils at the site and bedrock geology of the Wittering Formation- Sand, Silt and Clay (Fig 2)

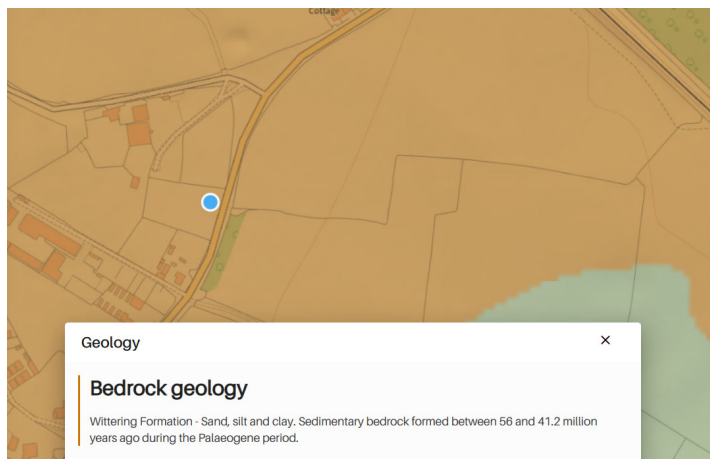


Fig 2: Extract from local BGS mapping

The LPA case officer in their email of 3rd October 2023 states the hardstanding material appears to be “*granular sub-base with an uncompacted stone topping.*” We made a site inspection on 11th October 2023. The hardstand comprises unbound graded granular crushed natural stone aggregate of primarily gravel fraction size and interstitial sand grading fraction on a geotextile fabric. In soil description terms a sandy gravel. The appearance of the material is consistent to the ‘granular sub-base’ attribution made by the case officer and we suspect given the location at the vehicular gateway into the land that this material is likely to be a Type 1 sub-base material or similar grading. A typical type 1 grading curve is shown in Fig 3

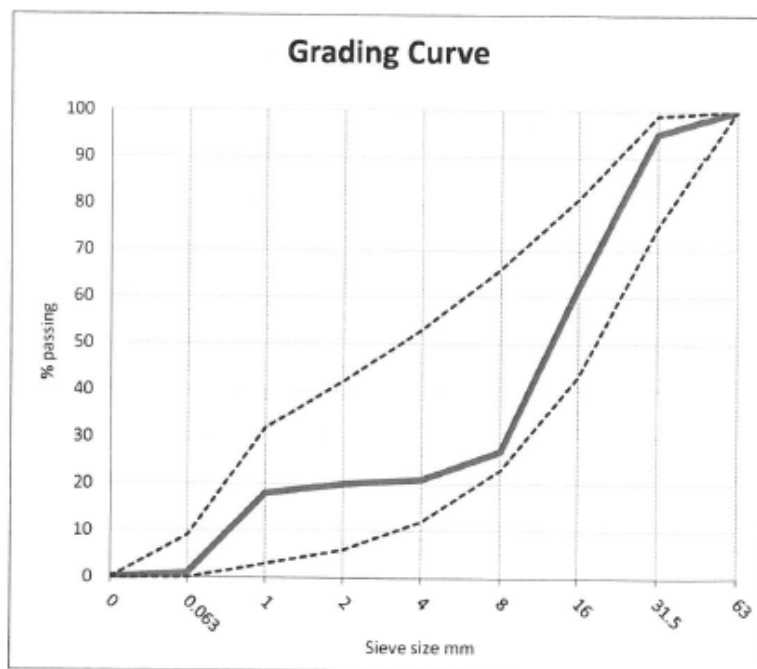


Fig 3 typical Type 1 grading curve

The permeability of the pavement material is anticipated to be one or two order of magnitudes greater than the permeability of the site soils (Fig 4 refers). Therefore developed infiltration characteristics will remain regulated by natural soil formation as the pavement will not reduce the natural infiltration rate.

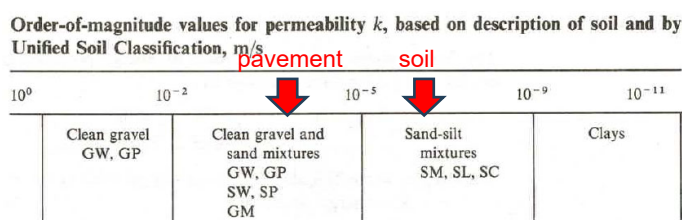


Fig 4 relative permeabilities

Water quantity

The pavement area comprises permeable construction of sandy gravel granular sub-base ie unbound material over the natural site soils. Rainfall will pass through permeable construction and there is no impermeable surface so no increase in runoff.

Water quality

Application F/23/95507 is for a replacement entrance gate, front fence and hardstand. The application does not propose to change the use of the site. It is inherent from this that the pollution index from the access as is now present and the previous access are identical. Notwithstanding this the permeable pavement construction now present provides additional filtration through the permeable pavement and geotextile and is therefore a betterment.

The site is some 0.21 Ha in overall size and the pavement area is a small fraction of this. Eastleigh BC Policy DM6 paragraph 1, for Sustainable surface water management and watercourse management applies to new development and excludes application types that are small and inherently minor or inconsequential with respect to surface water drainage such as for example extensions to dwellings and changes of use. Application F/23/95507 is clearly less consequential than a change of use application as change of use is not proposed. Notwithstanding this the whole site is well below the 0.5 Ha threshold so meets paragraph 1(c) applicability. Paragraph DM6-1(c) indicates for small sites single stage treatment by passage through a permeable pavement is acceptable.

It is clear that the intent of policy DM6-1 was that it should not apply to minor inconsequential work such as this application. Notwithstanding this the development present accords with policy DM6-1(c).

Adverse flood risk elsewhere

As set out above there is no increase in water quantity from the development.

During the site inspection the fall direction of the pavement area was measured with a spirit level. This maintains the predevelopment fall direction to the northwest see Fig 5.



Fig 5 current fall direction

There is therefore no change in flood flow direction as a result of the development.

There being no change in runoff and no change in flood flow pathway there is inherently no change in flood risk elsewhere.

Summary

Policy requirements for water quantity, quality and avoidance of increase in flood risk elsewhere are met.

Yours sincerely,

Aqua Callidus Consulting Ltd

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Enc. Photos

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Granular pavement material



Pavement fall to the north west