



SURFACE WATER DRAINAGE STRATEGY WITH RESPECT TO PROPOSED RESIDENTIAL DEVELOPMENT AT:-

WIGNALLS GATE, HOLBEACH, Lincs

Introduction

1) New Planning Requirements make it necessary to consider Sustainable Urban Drainage (SUDS) with respect to planning applications of the size and number of dwellings in this instance.

2) It is recognised that the type and scale of this development is what the local planning department is supporting. This being relatively dense use of available land.

Discussion

With respect to SUDS, the introduction of a swale along the road/pavement was considered. Due to the limited amount of available land and the relatively short length of road, this was discounted as impractical.

Further thought/discussion was given to providing a permeable road surface throughout and an open stone road base with an impermeable membrane to direct water to the drainage system.

This was considered unworkable since there would be many penetrations in the membrane for the foul sewer and all services.

Furthermore Lincolnshire County Council do not adopt a permeable road surface.

Although an Internal Drainage Board open drain is present to the Easternside of the site, there is a requirement to minimise rainfall discharge into their system. Consequently the available space for soakaways to accept roof water also needs to be considered.

With respect to the local plan, it is necessary to provide affordable housing. Consequently, on small sites, it is necessary to have a relatively dense development, giving no available space for swales, lagoons etc.

Having considered the "Development Road and Sustainable Drainage Specification and Construction". August 2016 Edition, issued by Lincolnshire County Council Highway and Flood Authority, it is clear that the introduction of swales or filter drains, would not comply with the design requirements of the document.

Reference being made to Figure 5/8 Element 12 and Figure 5/12 element 9, where in the Fenland Area the maximum ground water level cannot be achieved.

Conclusion

Taking into account the above points, it is considered that the introduction of a SUDS system on this site would not be reasonably practicable

Design Proposal

It is intended to direct surface water from the road only into the existing South Holland Internal Drainage Board water course along the frontage of the site,

Surface water from the roofs will be placed in suitable designed soakaways.

Please refer to attached drawing No.d 36916/13 for drainage design and layout.