

Discharge of Conditions – Land near Green Farm, Ingbirchworth

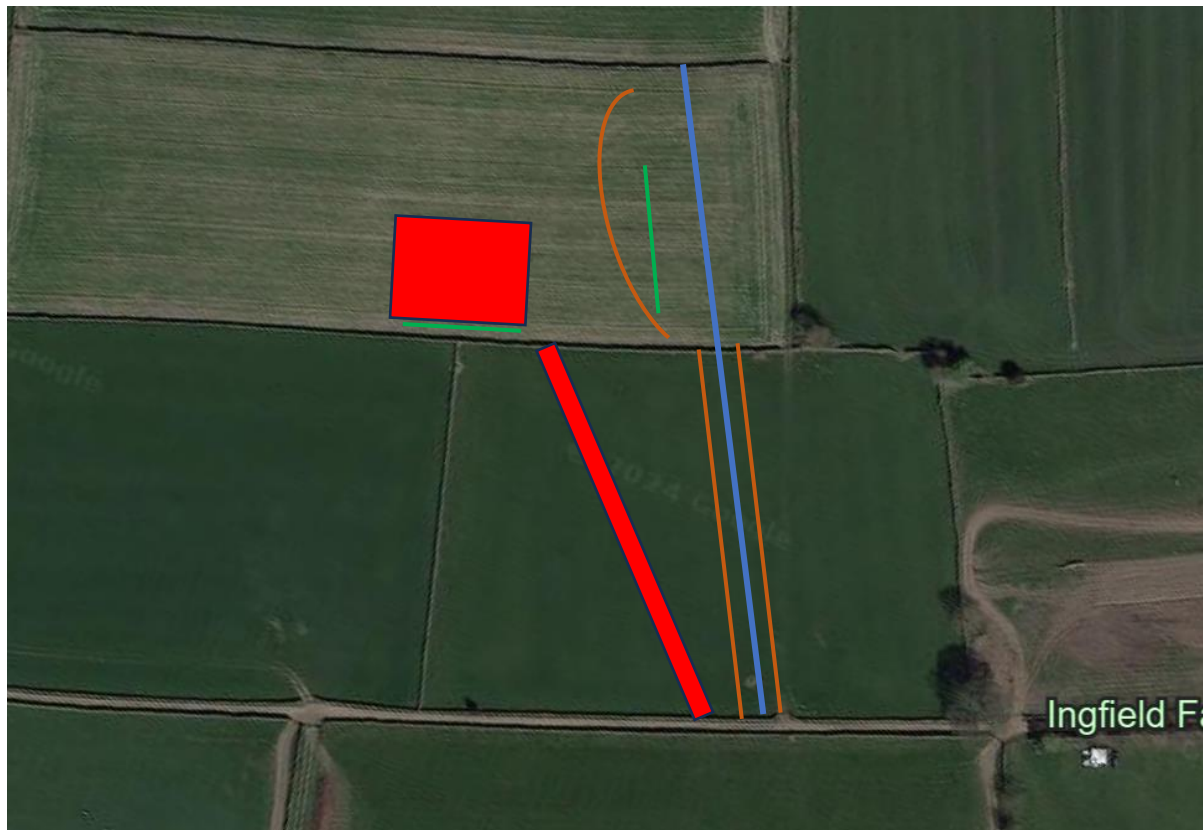
Please see below my responses for the conditions you have put in place, both conditions have been given a lot of thought by myself, as well as from some expert advice, and hopefully you will agree that they have been fully satisfied. Please let me know if any alterations can be made to ensure they meet your requirements.

Condition Six

“No construction works in the relevant area of the site shall commence until measures to protect the public water infrastructure that is laid within the site boundary have been implemented in full accordance with details that have been submitted to and approved by the local authority. The details shall include but not be exclusive to the means of ensuring that access to the pipe for the purpose of repair and maintenance by the statutory undertaker shall be retained at all times.”

- In order to protect the watermain during construction, orange plastic posts will be positioned accordingly to ensure digger/ lorry operators are aware of where they cannot travel.
- These orange posts will be clearly visible upon entering the site ensuring that there can be no chance of damage to the watermain during construction.
- In order to protect the watermain post construction, the watermain will be cordoned off by a line of trees, spaced more than 10m away from the watermain to ensure no root damage, and a fence at the other side to ensure no vehicles pass over the watermain. This will help to protect the watermain from becoming contaminated by any dirty surface water run off, the tree root will act as a filter to help purify the water (as explained in the document titled *Green Farm water pollution mitigation*).
- Please see diagram on following page.

Figure 1 showing site, building and track shown by red rectangle, watermain showed by blue line, vegetation buffer strip shown by green line and orange lines showing line of plastic posts.



Condition seven

“No piped discharge of surface water from the application site shall take place until works to provide a satisfactory outfall, other than the existing local public sewerage, for surface water have been completed in accordance with the details submitted to and approved by the local planning authority.”

- The surface water shall be channelled into a pipe which will lead it to a man made soakaway, the water will then be collected in this soakaway and then allowed to drain into the ground gradually, rather than just letting it pool on the surface leading to waterlogging. From 3m away from the building slotted rigid drains will be used to increase the porosity, again helping to avoid flooding and pooling.
- With regards to the roof water, this will be channelled into 6 separate downpipes which will be released into 3 large (2x2x2m) soakaways. Flooding and pooling will be avoided by having numerous soakaways. The diagram below shows the position of the downpipes, carrying roof water effectively to their respective soakaways.
- The back fall pipes would connect to one soakaway, the front fall pipes to the second soakaway and the sloped yard area in front will direct water into a pipe to take to the third soakaway.
- The gradual but consistent release of water will be achieved by the 2x2x2m holes being filled with gravel and small stones, to allow the water to escape through at an even speed to ensure no flooding or pooling occurs.

- In order to ensure the location for the soakaways are adequate I have conducted BRE Digest 365 Soakaway tests in 4 separate trial pits. After digging the trial pits I filled them with water and calculated the soil infiltration rate by timing how long it took the water to get from 75% to 25%.
- As a second test on a separate trial pit, I filled the pit with water and left overnight, I then left it for 24 hours and found that there was no water left after 24 hours, this proving that the soakaway is highly likely to be successful.
- In line with Environment Agency guidelines, soakaways must drop from a level of 75% to 25% within 24 hours in order to be deemed suitable, the trial pits I used achieved this, therefore proving that this will be a suitable method to be used at Green Farm for dealing with roof and surface water.
- The results of the two tests showed that a combination of large soakaways will be a suitable method for removing surface water run off, as an alternative to using the public sewerage.

Figure 2 below showing the agricultural building (grey) and the small yard area in front (yellow), the location of valley gutter and two side gutters, highlighted in red, the 6 downpipes highlighted in blue and the surface/roof water pipes leading to the soakaways (green).

