Drainage Strategy

Construction of New Storage Building

Lloyd Watson Haulage, Boundary Garage, Ellesmere Road, Bronington, Whitchurch, SY13 3HD



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Background and Introduction

This drainage strategy supports a full planning application for a new storage building at Lloyd Watson Haulage, Boundary Garage, Ellesmere Road, Bronington, Whitchurch, SY13 3HD.

It is necessary to provide a drainage strategy because the site is located adjacent to a drainage ditch, which although this is not within the development site, this ditch is identified by Natural Resources Wales Flood Risk Map as having a ‘medium to high’ flood risk from surface water and small watercourses.

The map extract below shows the development site in relation to the surface water flood risk identified by Natural Resources Wales Flood Risk Map.



The planning application is for the construction of a new steel portal frame storage building on part of the existing HGV haulage yard. The location is shown below.



Above: Proposed site location of new storage building

Summary of Flood Risk

The site is located within Flood Zone A, which is considered to be at little or no risk of fluvial or tidal flooding. The site does not form part of the watercourse floodplain and as demonstrated above, there can be no issue regarding loss of flood storage resulting from the change of use of the site.

Surface Water Drainage Strategy

The primary flood risk generated by any new development is the risk posed by an increase in surface water runoff. NRW state that in order to demonstrate that the development is of low risk, the applicant should show that it will be feasible to balance surface water run-off to the existing run-off rate in terms of a brownfield development for all events up to the 1 in 100 year storm (including a 30% allowance for climate change) and set out how this will be achieved.

The entire development site comprises an existing hard surface currently used as a HGV haulage yard. At present, surface water is discharged into the boundary drainage ditch which runs along the western boundary via a pipe. This is shown in the photo overleaf.



Above: Existing surface water pipe discharge into boundary ditch

There will be no increase in run-off as a result of the new development. The proposed development will not increase the amount of hardstanding across the site, therefore larger surface water run-off rates / volumes will not need to be attenuated within the site boundary. Rainwater from the storage building roof will be diverted into the existing surface water system and ultimately be discharges into the ditch as is already the case.

As there will be no change to existing surface water infiltration, nor any new paved areas, there is no need to install new attenuation such as soakaways or manage runoff into the watercourse

Foul Water Drainage Strategy

There are no WC's provided within the new storage building. Staff operating the facility will continue to use the existing toilets and washroom located elsewhere on the site.

Grey Water Drainage Strategy

There are no facilities such as sinks, dishwashers or other appliances that would generate grey water provided within the new storage building. Staff operating the facility will continue to use the existing facilities located elsewhere on the site.

Conclusions

The proposed storage building will not increase surface water runoff as there is no net gain in impermeable surface.

The site does not flood, there is no flood risk to this site from the drainage ditch and there will be no increase in run-off to areas downstream.