

ASDA Ferring PFS - Drainage Information for discharge of conditions

Laura Gibbons requested further information on several points with responses given below by Paul Gill (Adept Consulting Engineers Ltd):

- 1. Confirmation of the rating of the existing Hydrobrake. I will require proof that the existing Hydrobrake is rated at 2l/s. This could be contained within the maintenance manual, or a copy of the delivery note may be available, or details may be held in the health and safety file.*

There is no documentation available either on the Hydrobrake itself or held within ASDA records. The only information that we have available is an as built drawing from the original engineers for the site. This states in the manhole schedule that the Hydrobrake is rated at 2 l/s. The whole of the existing carpark drains through many of these Hydrobrake and ultimately discharges to the main watercourse at what would have been an agreed rate. See drawing C01-X and manhole schedule which corresponds to Manhole S18S. We can provide no further information on this unfortunately.

The only alternative is to remove the old Hydrobrake and install a brand new Hydrobrake which is rated at 2 l/s – only then could we provide you with further assurances.

- 2. I will also require calculations showing that the network which is already served by the Hydrobrake is not surcharged to the extent that flooding occurs as a result of the new proposals.*

Due to the existing invert levels on site and the critical tie in levels at the Hydrobrake the attenuation which we will be installing has to be at a level above the invert. There is no way to avoid this and still ensure a gravity system. Existing conditions on site utilised a 525mm porous subbase layer which historically was above the invert levels of the pipes and there was no recorded flooding events in the system. The fact that we are removing part of the porous sub base layer and replacing with a dedicated attenuation tank should be no different providing we can prove the attenuation has been sized adequately for the 1:100 year + 30% climate change event.

- 3. The original calculations I was supplied with were presuming the Hydrobrake was 5l/s. Please provide revised calcs for 2l/s that show that the proposed Alderburgh tank is sufficient to hold the 1 in 100 year event plus 30% climate change.*

We have previously forwarded to our planning team revised calculations for the 2 l/s Hydrobrake and again forward these for completeness. This shows the total amount of attenuation which is needed to be stored e.g. 162m³ and we have provided 191.4m³ of attenuation in the form of the attenuation tank and by reutilising some of the existing porous subbase on site – where development is not taking place and the site is being left as existing conditions.

We trust this clarifies that we have adhered to the correct storm events and discharge rate.