The existing site is an irregular rectangular area of approximately 9.5 Hectares and is predominantly undeveloped land, which does not appear to be positively drained. The site is orientated between, and slopes down from the south-west to the north-east, with an elevational difference of over 20m between these two extremes. In the eastern corner of the site lies an area of asphalt hardstanding of approximately 0.8 Hectares, which is drained by a system of gullies that discharge by gravity into the public surface water sewer in Stone Leigh, to the north-east of the site. South of this area of asphalt hardstanding, a block paved car park and asphalt access road totalling approximately 0.2 Hectares, drain into the surface water sewer in Wentworth Way, to the south-east.

The site lies within Flood Zone 1 as defined in PPS 25 Table D.1 and the proposed buildings are classified as 'Less Vulnerable' as defined in Table D.2. In accordance with the Sequential Test in Table D.3, the development is classified as appropriate.

The site is elevated in level above the local surrounding area and there are no watercourses within this vicinity. Therefore, it is considered that the only potential source of flooding is from surface water, which will be dealt with in accordance with the strategy outlined below.

The proposed development consists of four new warehouse units, complete with associated lorry hardstandings, car parks and common estate road. The currently sloping site will be plateaued at appropriate levels to suit each individual building. Each building plateau will be served by an individual drainage system discharging into common sewers located beneath the estate road ultimately discharging into the existing adopted foul and surface water sewers, by means of gravity discharge.

Surface water discharge into the public sewers located in Wentworth Way (to the south-east) and Stone Leigh (to the north-east) will be limited to a flow rate to be agreed with Yorkshire Water and The Environment Agency. Consideration will be given to incorporating further sustainable drainage methods (also referred to as Source Control as outlined in CIRIA Design Manual C522 "Sustainable Urban Drainage Systems" and Environment Agency report "Sustainable Urban Drainage – An Introduction") wherever practical within this development to reduce the peak flows discharging to the surface water sewers.

The main source control techniques are infiltration devices (such as swales, infiltration trenches, porous pavements, soakaways, and infiltration basins) and storage (such as tanks sewers, ponds). However, many of these devices are not practical for this development. The use of infiltration techniques is considered inappropriate due to the variable and cohesive nature of the underlying strata and the large variation in level across the site, together with space restrictions makes the use of attenuation ponds impractical.

Network Attenuation and underground tanks dedicated to each individual unit are therefore proposed to store the surface water and release it into the sewers in a controlled manner, not exceeding the allowable discharge flow rate. In storms with a statistical return period of greater than 1 in 30 years, informal storage in loading dock areas will be permitted, since these are typically a minimum of 1.2m below building finished floor levels

The proposed development is entirely warehouse operation and as such is not anticipated to produce trade waste. There are some potential sources of pollution such as motor vehicles, so measures will be taken to prevent pollution.

All surface water from hardstandings will pass through alarmed class 1 by-pass oil interceptors, sized to suit the area of impermeable surfacing. The perimeter access road and

roof water drainage will discharge via a separate network connecting into the drainage system downstream of the oil interceptor.

Although none are currently anticipated, any dedicated re-fueling areas will drain separately through a full retention oil interceptor and discharge to the foul system. Refuelling facilities will comply with Agency's Pollution Prevention Guidance Note 7.

The surface water drainage network will be generally designed such that no surcharging above pipe soffits occurs in a 1:2 year statistical return period storm and no flooding occurs on the site in less than a 1:30 year statistical return period storm. Checks will be undertaken to ensure any flooding occurring within the bounds of any individual unit in storms up to and including 1 in 100 year + 20% for climate change will remain within the demise of that unit, and that any localised flooding within the site as a whole does not affect adjacent sites or enter buildings.
Hence, the proposals will ensure that there is no additional risk of flooding to neighbouring or downstream sites as a result of the development.

Foul sewerage is proposed to discharge into the existing adopted foul sewer in Wentworth Way. The discharge flow rate is to be limited to agreement with Yorkshire Water Authority. Due to the levels of the site, it is not envisaged that foul water pumping will be required and a simple gravity system will suffice.