

Flood Risk, Noise & Air Quality The Broadway, Bedford



ACCON carried out comprehensive flood risk, noise and air quality assessments for the proposed redevelopment of land at 8-12 The Broadway, Bedford. The proposed development was for a Specialist Residential Care scheme. The purpose of these assessments was to determine to what extent the environmental issues constrained the residential development of the site.

The flood risk assessment identified that the development site was within Flood Zone 1 and the Sequential Test suggested that the proposed development was appropriate for the site. Further investigations identified that flood risk from all sources was low and that the site would be safe from flooding. Additionally, the development proposals would result in a decrease in the impermeable area of the site and would therefore decrease storm runoff.



A noise survey followed the CRTN shortened methodology to assess the road traffic was used to determine to what extent noise constrains the development of the site. The subsequent calculated freefield noise levels placed the development in PPG 24 Noise Exposure Category C during the day and Category B at night. In order to mitigate noise from the aircraft and road traffic it was recommended that the window system should have a minimum sound reduction of 32 dB(A). Calculations showed that with this level of sound insulation the internal noise levels within habitable rooms would meet the internal noise levels recommended in BS 8233 and WHO guidelines.



The development site itself is within an Air Quality Management Area. The detailed air quality assessment determined the overall levels of hydrocarbons, nitrogen dioxide (NO₂) and particulates (PM₁₀) in the vicinity of the site. Verified predictions indicated that within the development site the air quality limits would not be exceeded. The predictions also indicated that the impact of traffic associated with the development would be negligible.