

Date: 1-8-11

To: Richard Aston

Cc: Anita Ward

From: Roger Evans

Subject: Comments Former Cereal Partners site – Broadwater Road

Richard

I have looked at the review document and the new noise reports.

The comments I would add in light of the new information are as follows:-

1. CHP noise

The assessment of noise from the CHP indicates that the “target” maximum noise level is 33 dBA at 10m from the building is achievable, based on information from the potential supplier. For this to be possible the two external heat rejection units will have to be “low noise” models capable of a maximum noise output of 30 dBA at 10m (consequently a combined level of 33dBA) . In addition the attenuation provided behind the louvers and to ventilation duct openings would need to be able to reduce the noise level from the remaining plant to 20dBA at 10m. *The combined total would not in this case exceed the 33dBA level required.* The output from the heat rejection units will be readily available, details of the performance of equipment to attenuate the louvers and the ventilation ducts will need to be provided .

Insofar as conditions are concerned I would suggest – A scheme of attenuation for the CHP should be submitted and agreed by the planning authority. This should indicate plant noise levels, including frequency analysis, and the attenuation details in respect of internal and external plant, calculated to ensure the noise level at 10m from the building, relating to the CHP operation, does not exceed 33dBA.

2. Noise impact from the Pall Mall site

The consultants have provided a model of the noise impact that might occur if the site was used again for warehouse/distribution operations. This is based on predicted levels of activity and only applies to daytime use. I have some minor issues with the calculations but not the conclusion that some mitigation is required. The recommended barrier indicated would provide some benefit to the lower floors of blocks L, Q and possibly K . However, I would recommend that the barrier be extended so that it also extends part way (10m minimum) along the Northern Boundary from the North East corner.

No consideration is given concerning Night-time operations at this site. It is my understanding that there is no planning restriction that would preclude this use. Night-time use would mean that consideration of internal levels for bedrooms would need to be in terms of LAeq and LAm_{ax}, as per BS8233.

The report refers to an "alternative future access arrangement" whereby access to this site along the internal East West Southern boundary road is considered. I believe this would create a serious noise exposure problem for residents at the Southern end of the site and for those in the North facing properties in the Taylor Wimpey site.

3. Internal traffic flow

The internal traffic flow has noise implications for the business and residential occupiers of the site. The assessment now provided shows predictions for the access which leads to areas including the underground car park beneath the super store and the spine road which provides access to the leisure centre, some business and commercial units, a station drop off and all of the residential units. The figures indicate the spine road will have considerably higher traffic flow than the other access road. Unfortunately the spine road is a relatively long road and runs adjacent to the South facades of blocks P and Q and the West facades of blocks P, O, and . The predicted noise levels for all of these facades exceed 63LAeq 16hr. Therefore all of these fall into NEC category C for the daytime. However, no night time assessment has been made so it is not possible to say which NEC category would pertain for this time.

Irrespective of the NEC category it is clear that all of the habitable rooms along these facades and on some other facades, coloured green on figure 2 in the report, will need sound a high level of sound attenuation. It will not be possible to achieve satisfactory internal sound levels in these rooms with ventilation provided by open windows; suitably attenuated mechanical ventilation will be required. It is unfortunate that, because of the position and usage of this road, so many units will require this type of powered ventilation.

This road will also have a similar affect on the properties that face it on the Taylor Wimpey site. Apart from those very close to Broadwater Road, these will not have the sound insulation features necessary to provide satisfactory internal noise levels.

In addition the effect of the spine road traffic noise will also bring the noise level of the outdoor amenity space between blocks P and Q above the WHO recommendation of 55dB LAeq

Noise impact from the access road to the North of the residential area will have a significant effect on the North façade of Plot J; again this will need similar attenuation treatment.

I have no additional comments to make in respect of the service yard, fixed plant noise and construction and demolition; my memo dated 6-4-11 still applies.

Roger Evans
Chartered Environmental Health Practitioner