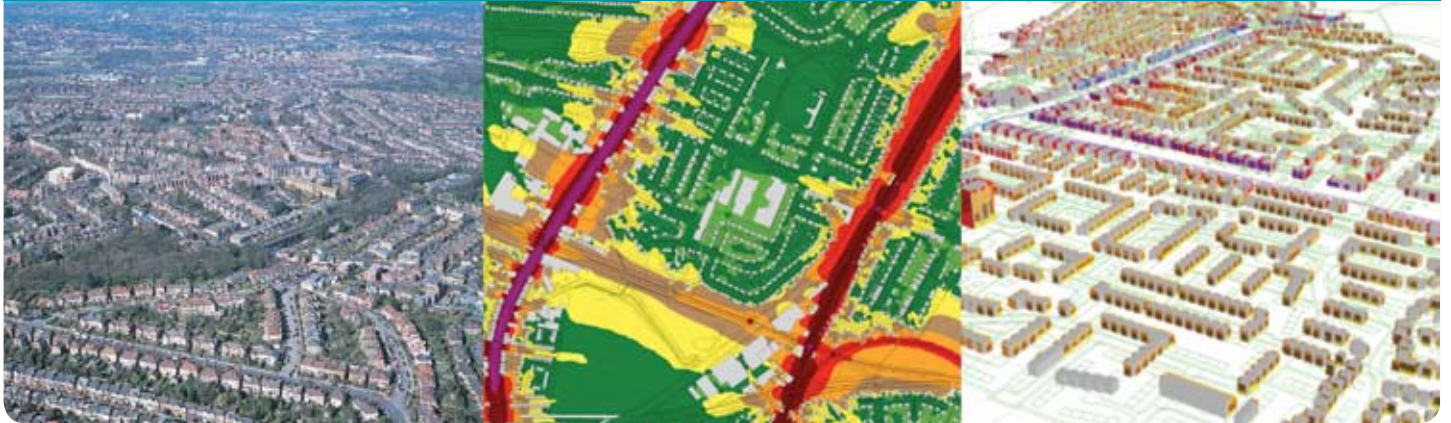


Noise Impact Assessment // Manchester Freight Interchange



Hepworth Acoustics is one of the UK's leading independent acoustic consultancies with a network of offices distributed across the UK staffed with highly qualified specialists. Hepworth's offer a range of noise consultancy and cutting edge noise mapping services that are comprehensive, creative and cost effective.

The Project

- » A proposed manufacturing and distribution centre served directly by road, rail and water in South Manchester.
- » Distribution centre covers approximately 153ha
- » Project involved the construction of a new 4.25km link road and the reopening of a 4.5km stretch of railway branch line.

Hepworth Acoustics Limited was commissioned to carry out a noise impact assessment for a new link road to the proposed Interchange and the reopening of a section of railway branch line. The assessment was carried out according to the Stage 3 methodology of the 'Design Manual for Roads and Bridges (DMRB), Volume 11, Section 3, Part 7, Noise and Vibration'. Calculations were made using sophisticated 3-dimensional noise mapping software.

In total approximately 7000 residential dwellings were assessed with approximately 10 calculation points per building to determine the worst affected facade. The project work also involved monitoring existing ambient noise levels and designing noise mitigation measures. The results of the assessment were submitted to the local authority to demonstrate how potential noise impact would be controlled.

Hepworth's software and mapping team prepared the noise model using a range of products obtained from emapsite alongside design plans for the project. A key feature of the modelling was the use of OS MasterMap to extract objects such as buildings and ground cover type over a modelling area of 22km². OSCAR traffic management product was also integrated with traffic models in order to create spatially accurate road noise sources.

The complete model was used to generate noise maps and 3-dimensional views of the proposed Interchange. Noise maps are becoming increasingly powerful methods for indicating the effect of new infrastructure on the existing noise climate as represented in the images below.



“ emapsite gives us a quick and reliable self service method of pricing and obtaining the mapping data we need for our projects in all the formats we require. ”

James Trow
Consultant, Hepworth Acoustics

