

Deputation to Transport and Environment Committee meeting to be held on 12 October 2023 regarding item 7.4: East London Street (Attachment 1)

Commentary on aspects of the East London Street report for the Transport and Environment Committee meeting 12 October 2023

General Comments

The report is a detailed response to the petition submitted to the Council by Ross MacCallum, and the subsequent discussion of the petition at the Transport and Environment Committee meeting of 17th August 2023. The Committee asked for the report to be completed in time for a subsequent meeting on 12th October 2023.

The original petition focused on the nighttime noise and vibration from out-of-service buses using East London Street, and the sleep disturbance that this causes to residents. Other potential issues were raised at the meeting, such as air pollution, traffic volumes, and speeding. The report has sought to address all of these issues, and as a result the core problem of nighttime noise nuisance has not received the attention it needs. Importantly, **errors in the interpretation of noise levels made in the report lead to incorrect recommendations being made.**

Comments on the interpretation of noise data

In paragraph 4.10 the report refers to the *Noise Insulation Regulations 1975* for guidance on acceptable noise levels, though it also notes that these regulations are not actually applicable in this case. The regulations define a threshold for acceptable road noise levels as being less than 1 dB above an L10(18-hour) value of 68 dB. In simple terms, **L10 (18-hour) is the average of the loudest tenth (6 minutes) of each daytime hour** between 0600 and 2400. Note that by definition the measure is not a continuous average and it *excludes nighttime noise*.

In paragraph 4.11 the report refers to a noise monitoring survey of East London Street which it says showed that daytime and nighttime noise levels were generally below 68 dB (while noting that peak noise levels were much higher) and goes on to say in paragraph 4.12 that no interventions are necessary because of this. However, the noise monitoring survey did not measure L10 (18-hour) – instead it made two different measurements: **LAeq(day) is a continuous average of daytime noise levels** between 0700 and 2300, while **LAeq(night) is a continuous average of nighttime noise levels** between 2300 and 0700. Note that this survey therefore *includes nighttime noise* measurements.

The respective definitions of L10(18-hour), LAeq(day) and LAeq(night) mean that they are not equivalent, and **cannot be compared**. L10(18-hour) concentrates only on the *loudest* moments during the sample period, while LAeq(day) and LAeq(night) are continuous averages that include *all* sound measurements and therefore they will always be lower in value than L10(18-hour) taken at the same location. Given that the values of LAeq(day) were already 66, 65 & 67 dB at the three survey locations on East London Street, it is very likely that measurements of L10(18-hour) taken at the same locations would be much higher than the 68 dB threshold used by the report, however it is impossible to be certain without further survey work. Nevertheless, **the conclusion made in paragraph 4.12 is clearly not justified by current data.**

Comments on the impact of night-time noise

The petition stresses in particular the impact that *night-time* noise is having on East London Street residents, but the report doesn't focus on this aspect. The use of a threshold measure in the report that specifically *excludes* night-time noise (see above) is a case in point.

The European Parliament passed the Environmental Noise Directive 2002 (END) in response to a previous World Health Organisation (WHO) report on the human health impacts of high levels of environmental noise. END was implemented in Scotland by the Environmental Noise (Scotland) Regulations 2006, which remain in force. While END leaves it up to member states to set their own measures and limits for noise, the methodologies and measurements that it promotes are intended to take into account not only the absolute noise level, but also how many people are likely to be affected by it and how annoying it will be for them in different circumstances. There is a particular recognition that night-time noise has much worse adverse effects on people than daytime noise.

WHO has published updated guidance in its Environmental Noise Guidelines 2019, which **strongly recommends that night-time road noise levels are kept below a LAeq(night) value of 45 dB**. The noise measurement survey on East London Street found that values of LAeq(night) at the three measurement locations were 60, 59 and 62 dB. These values are very significantly higher than the WHO recommended maximum and so **high night-time noise levels are likely to be causing significant health impacts for East London Street residents**.

Dr Douglas Reed

8th October 2023