

*Proof of Evidence (Evidence in Chief)*

**THE CITY OF BRADFORD METROPOLITAN DISTRICT COUNCIL (HARROGATE ROAD/NEW LINE JUNCTION IMPROVEMENTS) (SIDE ROADS) ORDER 2017**

**THE CITY OF BRADFORD METROPOLITAN DISTRICT COUNCIL (HARROGATE ROAD/NEW LINE JUNCTION IMPROVEMENT SCHEME) COMPULSORY PURCHASE ORDER 2017**

**THE HIGHWAYS ACT 1980**

**-and-**

**THE ACQUISITION OF LAND ACT 1981**

**THE HIGHWAYS (INQUIRIES PROCEDURE) RULES 1994  
COMPULSORY PURCHASE (INQUIRIES PROCEDURE) RULES 2007**

**National Transport Casework Team (REFERENCE: NATTRAN/YH/LAO/149)  
in the matter of**

**a highway improvement scheme involving highway alterations to improve and widen the A658 Harrogate Road from a point 70 metres north east of its junction with Carr Bottom Road, south westwards to a point 25 metres south west of its junction with Stanley Street and the A657 New Line from a point 45 metres north west of its junction with Haigh Hall Road, south eastwards to its junction with Elder Street, Bradford and a new 60 metres long one-way link road between Harrogate Road and New Line, Bradford in the County of West Yorkshire**

**Proof of Evidence**

**of**

**Brian Fairclough, AMIOA**

**Technical Officer, Environmental Health, Pollution Team**

**(Document Reference: P07/BF/Noise)**

**presented as evidence in chief on behalf of  
The City of Bradford Metropolitan District Council  
to**

**Local Public Inquiry – 6<sup>th</sup> November 2018**

## **Contents**

Proof relating to the highway improvement scheme involving highway alterations to improve and widen the A658 Harrogate Road from a point 70 metres north east of its junction with Carr Bottom Road, south westwards to a point 25 metres south west of its junction with Stanley Street and the A657 New Line from a point 45 metres north west of its junction with Haigh Hall Road, south eastwards to its junction with Elder Street, Bradford and a new 60 metres long one-way link road between Harrogate Road and New Line, Bradford in the County of West Yorkshire

### **1. Personal Details**

- 1.1 My name is Brian Fairclough and I hold the position of Technical Officer. I have a BTEC in Environmental Health and the Institute of Acoustics' Diploma in Acoustics and Noise Control. I am currently studying for a Masters' Degree in Environmental Health. I am a member of the Institute of Acoustics. I have over fifteen years' experience in the field of environmental acoustics and noise control.

### **2. Scope of Evidence**

- 2.1 My proof of evidence is based on my comments regarding the report submitted by Environmental Noise Solutions Limited's report, 'Noise Impact Assessment for Proposed Junction Improvement Scheme, Harrogate Road/New Line Junction, Greengates, Bradford', dated 23 February 2017, document reference: *NIA/7117/17/7025/v5 Harrogate Road (see Core Document 21.1.35)*

### **3. Background**

- 3.1 The report discusses a noise impact assessment conducted between 1600 & 1800 hours on Monday 11 January 2016 at six locations on New Line and Harrogate Road. The report is part of the evidence provided in relation to the highway improvement scheme involving highway alterations to improve and widen the A658 Harrogate Road. The impact assessment's calculation methodology is based upon Calculation of Road Traffic Noise (CRTN) (see Core Document 21.1.26). The report also compares measured sound levels against the criteria set down by the Noise Insulation Regulations 1975 (as amended 1988), which provides authorities with discretionary powers to make grants in respect to the costs of undertaking noise insulation work.

**3.2** The report takes the Design Manual for Roads and Bridges (DMRB): Volume 11: Environmental Assessment, Section 3, Part 7 as its terms of reference (see Core Document 21.1.20). DMRB considers the noise impact magnitude of a development based upon increases in noise levels in the Short Term (the sudden increase in noise as a result of the sudden opening of a scheme) and the Long Term (the gradual increase in noise as a result of natural traffic-growth). (See tables 1 & 2, below):

*Table 1: Magnitude of Noise Effects in the Short Term*

Noise Change, $L_{A10, 18 \text{ hour}}$ , dB*	Magnitude of Impact
0	No Change
0.1 – 0.9	Negligible Change
1.0 – 2.9	Minor/Low Change
3.0 – 4.9	Moderate/Medium Change
$\geq 5.0$	Major/High Change

*Table 2: Magnitude of Noise Effects in the Long Term*

Noise Change, $L_{A10, 18 \text{ hour}}$ , dB*	Magnitude of Impact
0	No Change
0.1 – 2.9	Negligible Change
3.0 – 4.9	Minor Change
5.0 – 9.9	Moderate Change
$\geq 10.0$	Major Change

\* $L_{A10}$  is the A-weighted noise level that is exceeded for 10% of the measurement period (in this instance 18 hours).  $L_{A10}$  is extensively used for measuring noise traffic.

A-Weighting describes a frequency filter employed by a sound level meter. The human ear is frequency-selective. Its full hearing range occurs across 20 Hz to 20,000 Hz. The A-Weighted filter covers the 20 Hz to 20,000 Hz range, and as such it attempts to replicate the human ear's response to sound, especially at lower sound levels.

**3.3** Two assessment methods: a 'Simple' and a 'Detailed' assessment are provided by DMRB.

**3.4** The Simple assessment compares noise level data from the following scenarios:

**Short Term.** 'Do-Minimum' (no scheme) in the baseline year against 'Do Something' (with the scheme) in the baseline year.

**Long Term.** 'Do-Minimum' in the baseline year against 'Do Something' (with the scheme) in the future.

**3.5** Where there is a predicted permanent Short Term increase of  $\geq 1$  dB, or a permanent Long term increase of  $\geq 3$  dB, DMRB requires that the Detailed Assessment be undertaken.

**3.6** The Detailed Assessment compares noise level data from the following scenarios:

**Short Term.** 'Do-Minimum' (no scheme) in the baseline year against 'Do Something' (with the scheme) in the baseline year.

**Long Term.** 'Do-Minimum' in the baseline year against 'Do Something' in the future.

**Long Term.** 'Do-Minimum' in the baseline year against 'Do Minimum' in the future.

## **4 Main Evidence**

**4.1** The Simple Assessment predicts that properties in the vicinity of the development will be exposed to a change in the short term impact magnitude between 0.5 and 2.1 dB. This suggests a Minor or Low Short Term noise impact. The Long Term change in impact magnitude ranges from 1.1 to 2.6 dB. This suggests a Negligible Long Term noise impact. This notwithstanding, the noise level at New Line (east) and at the proposed P-Loop junction will be exposed to a short term change in magnitude greater than 1 dB; therefore a Detailed Assessment was undertaken.

**4.2** For residents living in the New Line (east) and P-Loop junction vicinities, the Detailed Assessment predicts that the percentage of persons 'very much bothered' by a 'Do Nothing' Long Term increase in traffic noise would increase by 0-2%.

**4.3** For residents living in the vicinity of New Line (east), the percentage of persons 'very much bothered' by a 'Do Something' Short Term increase in traffic noise would increase by 21%.

**4.4** For residents living in the vicinity of the P-Loop junction, the percentage of persons 'very much bothered' by a 'Do Something' Short Term increase in traffic noise would increase by 21% and, in the long term, by 3%. This suggests that the development's noise impact upon residents would decrease with time.

4.5 The report also predicts that a number of dwellings on new line will be eligible for Noise Insulation Regulations 1975 (as amended 1988) discretionary grants.

4.6 In terms of attenuating the noise, noise insulation work might entail the provision of a secondary double glazing incorporating trickle or mechanical ventilation. Outdoor amenity could be protected to a degree by the provision of appropriate sound barriers or bunds.

4.7 I am happy with the report's terms of reference. Its predictions are based upon the appropriate Standards, and its calculation methodology) is sound throughout. This being the case, I would concur with its findings.

## 5 **Conclusion**

5.1 In summary, I am of the view that I have advanced a compelling case to justify the Orders being confirmed in the public interest to ensure that the Council, acting on its behalf, will be able to use compulsory purchase powers, should the use of such powers be required as a last resort, to acquire for the purposes of the Orders, all the land and rights needed to promote, deliver and facilitate the proper construction to improve and widen the A658 Harrogate Road from a point 70 metres north east of its junction with Carr Bottom Road, south westwards to a point 25 metres south west of its junction with Stanley Street and the A657 New Line from a point 45 metres north west of its junction with Haigh Hall Road, south eastwards to its junction with Elder Street, Bradford and a new 60 metres long one-way link road between Harrogate Road and New Line, Bradford in the County of West Yorkshire.

## 6 **Expert Declaration**

6.1 I confirm that my duty to the Inquiry as an expert witness overrides any duty to those instructing or paying me, that I have understood this duty and complied with it in giving my evidence impartially and objectively and that I will continue to comply with that duty.

6.2 I confirm that my expert evidence includes all facts which I regard as being relevant to the opinions I have expressed and that attention has been drawn to any matter that would affect the validity of those opinions. I am not instructed under any conditional fee arrangement and have no conflict of interest.

**6.3** I confirm that I have made clear which facts and matters referred to in this proof of evidence are within my own knowledge and which are not. Those that are within my own knowledge I confirm to be true. The opinions I have expressed represent my true and complete professional opinions on the matters to which they refer. I confirm my report complies with the requirements of the Institute of Acoustics.

11<sup>th</sup> October 2018