## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th></th>
<th>Qualifications and Experience</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Scope of Evidence</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Construction Noise and Vibration Management</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Response to Statement of Matters</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>Conclusions</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Statement of Truth</td>
<td>5</td>
</tr>
</tbody>
</table>
1 Qualifications and Experience

1.1 My name is Maxwell Simon Forni. I am a practicing environmental consultant with over 25 years' experience, currently employed by Mott MacDonald Ltd as a Technical Director. I have held this role for about 3 years, and have worked with Mott MacDonald for 25 years. My technical specialist area is acoustics. I am jointly responsible for a team of 11 staff.

1.2 I have a B.Eng. (Hons) in Engineering Acoustics and Vibration from Southampton University. I am a Chartered Engineer and I am also a Member of the Institute of Acoustics (MIOA).

1.3 I have been responsible for many technical assessments relating to infrastructure projects including Shoreham Adur Tidal Walls; Exeter Flood Defence Scheme; Torcross Sea Wall Investigation and Norwich Northern Distributor Road. I am currently working on several infrastructure schemes across the country, including Nottingham Express Transit (NET) and A63 Castle Street improvement in Hull.

1.4 My role on the environmental impact assessment for the Boston Barrier Scheme (the Scheme) has been to oversee the noise and vibration assessment and the production of the Noise and Vibration Technical Report included within Volume 2a of the Environmental Statement (A/17/2A), providing technical advice and review.

2 Scope of Evidence

2.1 I am presenting evidence on behalf of the Environment Agency.

2.2 My evidence covers technical aspects of noise and vibration impacts associated with the construction of the Scheme.

2.3 In Section 3 of this Proof of Evidence, I explain the draft Construction Noise and Vibration Management Plan (CNVMP) (Appendix 1) which I have helped the EA to develop.

2.4 In Section 4 of this Proof of Evidence, I provide a response to the Statement of Matters. Of the matters about which the Secretary of State particularly wishes to be informed, my evidence will address the following insofar as they relate to noise and vibration:

Matter 6 The likely environmental impacts of constructing and operating the scheme;

Matter 9(a) The measures proposed by the Environment Agency for mitigating any adverse impacts of the scheme, including any measures to avoid, reduce or remedy any major or significant adverse environmental impacts of the scheme; and

Matter 9(b) The measures proposed by the Environment Agency for mitigating any adverse impacts of the scheme, including whether, and if so, to what extent, any adverse environmental impacts would remain after the proposed mitigation.
3 Construction Noise and Vibration Management

3.1 Section 5.3.7 to Section 5.3.23 of the Noise and Vibration Technical Report (A/17/2A) sets out predicted noise and vibration impacts associated with the Scheme.

3.2 This section of my proof identifies where these impacts have the potential to adversely affect local residents and sets out where they are addressed within the Environment Agency’s proposed Construction Noise and Vibration Management Plan (CNVMP) (please see Appendix 1 of the appendices to my evidence (EA/10/2)).

3.3 A CNVMP is the conventional means by which construction noise and vibration controls are introduced at the planning stage. The CNVMP will be subject to revision when precise details of works are available in terms of plant, methodology and duration. Ultimately, it will be submitted to the local planning authority, Boston Borough Council, in accordance with the planning conditions proposed by the Environment Agency in its request for a direction deeming planning permission to be granted for the Scheme (A/10). Proposed planning condition (6), which is the relevant condition, also requires the Environment Agency to carry out the construction works in accordance with the CNVMP as approved. Further information on the proposed planning conditions is provided in the evidence of Emma Lunt (EA/8/1).

3.4 The principle components of the draft CNVMP are described in paragraphs 3.5 to 3.17 below.

Section 1 of CNVMP

3.5 Sections 1.1 and 1.2 of the CNVMP set out general requirements for noise mitigation based upon control of noise transmission and control of noise propagation and specifies general measures the Environment Agency will require of the Contractor.

3.6 Section 1.3 of the CNVMP details the requirements of the Environmental Health Officer for managing noise and vibration during construction which have arisen during consultation.

3.7 Section 1.4 of the CNVMP sets out further specific control measures required. These include preliminary identification of construction noise and vibration monitoring locations and a schedule of noise and vibration limits, referenced in Appendix C to the CNVMP, and which contain provision for secondary insulation should certain criteria be met.

Section 2 of CNVMP

3.8 Section 2 of the CNVMP sets out mitigation for those specific construction activities identified in the ES that result in adverse impacts in the absence of mitigation. These activities are:

3.8.1 re-cabling of power lines along Wyberton Low Road;

3.8.2 dredging;

3.8.3 widening of the Wet Dock Entrance;

3.8.4 construction traffic; and

3.8.5 piling.
Further information regarding the proposed construction activities required for the Scheme is provided in the evidence of Peter Mallin (EA/3/1).

Section 2 also details criteria for additional mitigation against construction noise in the form of secondary insulation at locations where the duration and noise level cannot be sufficiently controlled using conventional means, such as acoustic barriers.

The potential for significant impacts prior to mitigation, which were presented in Tables C.2 to C.26 of the Noise and Vibration Technical Report (A/17/2A) have been summarised and re-evaluated in Appendix 2 to this proof of evidence. No residual significant impacts have been identified which would remain following the application of provisions within the CNVMP.

Further information on the mitigation measures proposed within the CNVMP for the construction activities identified is provided below, as referenced by the table within Appendix 2.

**3.13 Re-cabling power lines along Wyberton Low Road (Note 1 of Appendix 2)**

3.13.1 Section 2.1.4 of the draft CNVMP (Appendix 1) explains that impacts arising from these enabling works will be addressed through temporary screening, secondary insulation, temporary relocation and noise monitoring, as appropriate. Section 1.2 of the CNVMP specifies that residents requiring temporary relocation will be identified prior to works taking place.

3.13.2 Worst-case un-mitigated predicted noise levels in the ES were 95dB during cable-laying operations at nearest properties on Wyberton Low Road. Even with CNVMP mitigation the insulation threshold (in CNVMP) is likely to be exceeded therefore temporary relocation will be offered to affected residents identified by the Environment Agency.

3.13.3 With the above mitigation in place, I am confident that best practice will have been adopted, significant adverse impacts will be avoided and residual adverse impacts along Wyberton Low Road will be minimised.

**3.14 Bank Sheet Steel Piling (Note 2 of Appendix 2)**

3.14.1 Section 5.3.14 of the ES identifies adverse noise impacts to the rear of Wyberton Low Road, while Section 5.3.21 identifies adverse vibration impacts at the same location. Section 2.1.3 of the CNVMP specifies mitigation in the form of press piling, which will reduce predicted noise levels of up to 75dB by approximately 20dB and give rise to negligible vibration, thus reducing both noise and vibration impacts to acceptable levels.

3.14.2 With this mitigation in place and with best practicable means as identified in the CNVMP I am confident that best practice will have been observed, significant adverse impacts will be avoided and any residual adverse impacts will be minimised.

**3.15 Dredging (Note 3 of Appendix 2)**

3.15.1 Sections 5.3.10 to 5.3.12 of the ES predict adverse impacts arising from dredging activities which are scheduled to take place over the 24-hour period, principally to the rear of properties along Wyberton Low Road during evening and night-time.
periods for Phase 1 and Phase 3, but also at The Featherworks, Windsor Bank, Alfred Street and Skirkbeck Street for Phase 2. Section 2.11 of the CNVMP identifies specific mitigation at these locations necessary to reduce noise levels to acceptable levels which includes acoustic screening to the rear of Wyberton Low Road and adjacent to the Wet Dock Lock. Noise monitoring will ensure noise levels remain within acceptable limits and will be used to moderate evening and night-time works adjacent to residential properties. Where this cannot be done, secondary noise insulation will be provided.

3.15.2 With this mitigation in place and with best practicable means as identified in the CNVMP I am confident that best practice will have been observed, significant adverse impacts will be avoided and any residual adverse impacts will be minimised.

3.16 Wet Dock Entrance Construction Activities (Note 4 of Appendix 2)

3.16.1 Section 5.3.13 of the ES predicts adverse impacts at Windsor Bank and The Featherworks during evening and night-time works. Section 2.1.2 of the CNVMP identifies specific mitigation necessary at this location to reduce noise levels to acceptable limits.

3.16.2 Acoustic screens will be provided to the north of the construction area of the new Wet Dock Lock. A noise monitoring regime will ensure noise levels remain within limits.

3.16.3 With this mitigation in place and with best practicable means as identified in the CNVMP I am confident that best practice will have been observed and any residual adverse impacts will be minimised.

3.17 Construction Traffic

3.17.1 Section 5.3.17 of the ES identifies the potential for short term impacts at Wyberton Low Road due to construction-related traffic during peak movement times. Section 2.1.5 of the CNVMP identifies measures to offset these including restricting delivery areas and times, reducing vehicle speed and appropriate use of access routes such that noise levels are minimised.

3.17.2 With this mitigation in place and with best practicable means as identified in the CNVMP I am confident that best practice will have been observed and any residual adverse impacts will be acceptable to the residents

4 Response to Statement of Matters

4.1 Statement of Matters 6 (likely environmental impacts of constructing and operating the scheme) is covered in paragraphs 3.1 to 3.8 of this Proof of Evidence with respect to construction and in the Noise and Vibration Technical Report (A/17/2A) with respect to construction and operation.

4.2 Statement of Matters 9 (measures proposed by The Environment Agency for mitigating any impacts of the scheme) have been covered in paragraphs 3.1 to 3.8 of this Proof of Evidence,
5 Conclusions

5.1 In my evidence I have introduced and explained the proposed Construction Noise and Vibration Management Plan which puts mitigation measures outlined in the ES into a more formal context.

5.2 In my opinion this Construction Noise and Management Plan goes as far as is possible at this stage to mitigate noise and vibration impacts from construction on residential areas near to the Scheme.

5.3 It is my professional opinion that, with the adoption of measures detailed in the CNVMP, the Environment A will have done as much as is reasonably possible to mitigate noise and vibration impacts, and that it will be possible to sufficiently mitigate these impacts.

6 Statement of Truth

6.1 In so far as the facts stated in my report are within my own knowledge, I have made clear which they are and I believe them to be true, and that the opinions I have expressed represent my true and complete professional opinion.

6.2 This Proof of Evidence includes all facts which I regard as being relevant to the opinions which I have expressed and that attention has been drawn to any matter which would affect the validity of those opinions.

6.3 My duty to the Inquiry as an Expert Witness overrides any duty to those instructing or paying me, and I confirm 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 as required.