APPENDIX 11.7
DEVELOPMENT GENERATED TRAFFIC NOISE ASSESSMENT

IMPACT

The results of the **Transport Assessment** have been used as the basis for determining the change in noise levels that would arise on the local road network as a result of the development generated road traffic noise. The **Transport Assessment** has generated traffic data for the years 2023 (base year), 2026 (opening year) and 2041 (future year). The assessment has considered the following scenarios:

- 2026 Do minimum[1] opening year[2] (DMOY);
- 2026 Do something[3] opening year (DSOY); and
- 2041 Do something future year[4] (DSFY).

Basic Noise Level (BNL) calculations have been undertaken using traffic flow, speed and HGV percentage, as detailed in CRTN[5], for each local road traffic link, and each of the above scenarios. The change in noise levels arising as a result of the Proposed Development in isolation (short-term), and in combination with natural traffic growth (long-term), have been determined by making the following comparisons:

- Short-term = DSOY – DMOY; and
- Long-term = DSFY – DMOY.

The results are given in **Table 11-7.1** for the short-term assessment.

Table 11-7.1: Road Traffic Assessment, Short-Term.

Road	Noise Level $L_{A10, 18hr}$ dB		Noise Level Change (dB)	Short-Term Magnitude of Impact
	DMOY [A]	DSOY [B]	Short-Term [B-A]	
A361 North	69.5	70.0	+0.5	Negligible Adverse
A361 South	70.0	73.2	+3.2	Moderate Adverse
Hennef Way	75.2	75.3	+0.1	Negligible Adverse
A422 (Middleton Cheney)	72.8	73.2	+0.4	Negligible Adverse
North Bar Street	69.4	69.4	0.0	No Change

With the exclusion of the A361 Southbound and North Bar Street, all road links are predicted to have a short-term Magnitude of Impact of Negligible.

[1] Do minimum means a scenario without the Proposed Development

[2] First year of operation

[3] Do something means a scenario with the Proposed Development

[4] 15years after the first year of operation.

[5] Calculation of Road Traffic Noise, Department of Transport Welsh Office, 1988.

North Bar Street shows No Change in the short term, with the $L_{A10,\ 18hour}$ being calculated to be 69.4 dB in both the DMOY and DSOY scenarios.

The change calculated along the A361 Southbound is Moderate Adverse and could be classed as Significant. However, there are no noise sensitive receptors, existing or proposed, along this road link and thus no receptor to experience an impact or have an effect attributed to. Therefore, this Magnitude of Impact is not considered to be a Significant Effect.

There is no change in NPSE Classification as the DMOY scenario already results in significantly high noise levels to not change the NPSE Classification of SOAEL.

Table 11-7.2 presents and assessment of the long-term noise level change associated with the Proposed Development.

Table 11-7.2: Road Traffic Assessment, Long-Term.

Road	**Noise Level $L_{A10,\ 18hr}$ dB**		**Noise Level Change (dB)**	**Long-Term Magnitude of Impact**
	DMOY [A]	**DSFY [C]**	**Long-Term [C-A]**	
A361 North	69.5	70.4	+0.9	Negligible Adverse
A361 South	70.0	73.4	+3.4	Minor Adverse
Hennef Way	75.2	75.8	+0.6	Negligible Adverse
A422 (Middleton Cheney)	72.8	73.7	+0.9	Negligible Adverse
North Bar Street	69.4	69.9	+0.5	Negligible Adverse

In the long-term, only one road link has a change greater than or equal to 3 dB, whereby a potential for a significant effect occurs. However, this road link, the A361 Southbound has no noise sensitive receptors adjacent to the road and thus no receptor is present for the effect to be felt. Therefore, this Magnitude of Impact is not considered to be a Significant Effect.

All other road links have a Magnitude of Impact of Negligible and thus are not considered to be Significant.

There is no change in NPSE Classification as the DMOY scenario already results in significantly high noise levels to not change the NPSE Classification of SOAEL.

Traffic Flow Change Summary

In the short-term, the road traffic noise changes associated with the Proposed Development are greater than 3 dB for one road link. However, the road link does not have any noise sensitive receptors adjacent to it. For the remaining road links with noise sensitive receptors adjacent to the road; the magnitude of impact is negligible adverse and the NPSE classification is SOAEL. However, due to the already high noise levels presented in both the DMOY scenario, and referenced in the environmental sound survey, the NPSE Classification of SOAEL is not considered to be significant as the development does not cause a shift in the NPSE Classification as it is a function of

absolute noise. Therefore, the short-term effects would be adverse, not significant, short-term, direct and permanent.

Similarly, in the long term, the road traffic noise changes associated with the Proposed Development are greater than 3 dB for one road link. However, this applies to the same road link as outlined in the short-term change assessment which does not have any sensitive receptors adjacent to it. As with the short-term assessment, for the remaining road links with noise sensitive receptors adjacent to the road; the magnitude of impact is negligible adverse and the NPSE classification is SOAEL. Therefore, making reference to the above comments, the NPSE Classification is not considered significant. Therefore, the long-term effects would be adverse, not significant, long-term, direct and permanent.

Mitigation

Impacts associated with the Proposed Development are not significant, further consideration to mitigation is not warranted.

Residual

The worst-case changes on the existing network are **negligible** adverse (not significant).

As significant adverse effects are not identified, mitigation is not considered warranted and the identified (not significant) effects would remain.

Road traffic noise level changes do not cause a shift in the NPSE Classification which is a function of absolute noise level rather than relative change.