**Ansty Garden Community**

**Environmental Statement**

**Volume 4**

November 2023

# APPENDIX E: NOISE AND VIBRATION

temple

# Appendix E Noise and Vibration

## 1.1 Noise Survey

1.1.1 Temple Group Ltd (Temple) have been instructed by Fairfax Acquisitions Ltd to provide the noise and vibration chapter for Ansty Garden Community.

1.1.2 Continuous noise monitoring has been conducted over seven days at five locations' representative of new noise sensitive receptors. In addition to the unattended monitoring, attended measurements have been undertaken at five other locations across the Site.

### The Proposed Development

1.1.3 The Proposed Development is exposed to noise and vibration from the following sources:

- Road traffic noise from the A272;
- Road traffic noise from B2036;
- Plant noise from the Cuckfield Sewage Treatment Works;
- Pedestrian noise from public footpaths; and
- Aircraft noise

### Relevant Standards and Guidance

#### British Standard 7445: 'Description and Measurement of Environmental Noise'

*Part 1: Guidance to quantities and procedures*[1]

1.1.4 This part of BS 7445 defines the basic quantities to be used for the description of noise in community environments and basic procedures for the determination of the quantities. The methods and procedures described are intended to be applicable to sounds from all sources, individually and in combination that contribute to the total noise at a site.

[1] British Standards Institute (BSI), (2003): 'BS 7445 – Description and Measurement of Environmental Noise. Part 1: Guide to Quantities and Procedures'. BSI, London.

*Part 2: Guide to the acquisition of data pertinent to land use*[2]

1.1.5 This part of BS 7445 describes methods for the acquisition of data which provide descriptors that enable:

- A description of the environmental noise in a specified area of land to be made in a uniform way
- The compatibility of any land use activity or projected activity to be assessed with respect to existing or predicted noise

1.1.6 Using the data as a basis, authorities may establish a system for selecting the appropriate land use, as far as noise levels are concerned, for a specific area, or the sources of noise (existing or planned) which are respectable to land use (existing or planned).

*British Standard 8233:2014: 'Guidance on sound insulation and noise reduction in buildings'*

1.1.7 British Standard 8233: 2014 'Guidance on Sound Insulation and Noise Reduction for Buildings'[3] provides criteria for the assessment of internal noise levels for various uses including dwellings and commercial properties.

*British Standard 5228*

1.1.8 British Standard 5228: 'Code of practice for noise and vibration control on construction and open sites'[4] (BS 5228) provides a 'best practice' guide for noise and vibration control. It includes sound power level (SWL) data for individual plant as well as a calculation method for noise from construction activities. Part 1 of the standard relates to noise and part 2 relates to vibration.

*British Standard 4142:2014+A1:2019*

1.1.9 British Standard 4142:2014+A1:2019[5] (BS 4142) 'Methods for rating and assessing industrial and commercial sound' describes methods to assess the likely effect of sound of an industrial and/or commercial nature on people who might be inside or outside a dwelling or premises used for residential purposes upon which the sound is incident.

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[2] British Standards Institute (BSI), (1991): 'BS 7445 – Description and Measurement of Environmental Noise. Part 2: Guide to the Acquisition of Data Pertinent to Land Use'. BSI, London.

[3] British Standard 8233: 2014 'Guidance on Sound Insulation and Noise Reduction for Buildings', BSI, London.

[4] British Standard 5228-1: 2009 + A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise

[5] British Standards Institution (June 2019), British Standard 4142:2014+A1:2019 'Methods for rating and assessing industrial and commercial sound'

*British Standard 6472*

1.1.10 British Standard 6472-1: 2008: 'Guidance to Evaluation of Human Exposure to Vibration in Buildings Part 1: Vibration Sources Other than Blasting'[6] (BS 6472) presents recommended frequency weighted vibration spectra (for continuous vibration) and vibration dose values (VDV) (for intermittent vibration) above which comment is likely to occur in residential properties.

*ProPG: Planning & Noise Professional Practice Guidance on Planning & Noise New Residential Development*

1.1.11 Professional Practice Guidance on Planning and Noise for new residential development (ProPG) provides guidance on producing an initial site noise risk assessment pre-mitigation based on the prevailing daytime and night-time noise levels across a site, from which a site (or areas thereof) can be zoned. The assessment requires consideration of four key elements to be undertaken in parallel:

- Good Acoustic Design Process;
- Internal Noise Level Guidelines;
- External Amenity Area Noise Assessment; and
- Assessment of Other Relevant Issues.

*World Health Organisation*

1.1.12 The World Health Organisation Guidelines for Community Noise 1999[7] states "For a good sleep, it is believed that indoor sound pressure levels should not exceed 45 dB LAmax more than 10-15 times per night (Vallet and Vernet 1991)".

*Design Manual for Roads and Bridges*

1.1.13 Volume 11 Environmental Assessment, Section 3 Environmental Assessment Techniques, Part 7 Noise and Vibration

1.1.14 Highways England 'Design Manual for Road and Bridges Volume 11 Section 3 Part 7 – Traffic Noise and Vibration'[8] (DMRB) provides guidance on the appropriate level of assessment to be used when assessing the noise and vibration impacts arising from all road projects, including new construction, improvements and maintenance.

[6] British Standard 6472-1:2008 Guide to evaluation of human exposure to vibration in buildings, Part 1: Vibration sources other than blasting. BSI, London

[7] World Health Organisation (1999), WHO Guidelines for Community Noise.

[8] Design Manual for Roads and Bridges, Volume 11, Environmental Assessment, Section 3, Environmental Assessment Techniques, Part 7, LA 111, Noise and Vibration, (formerly HD 213/11, IAN 185/15), Highways England, May 2020

### *Calculation of Road Traffic Noise (CRTN)*

1.1.15 Department of Transport/Welsh Office Memorandum 'Calculation of Road Traffic Noise'[9] (CRTN) describes procedures for traffic noise calculation, it is suitable for environmental assessments of schemes where road traffic noise may have an impact.

## Local Planning Policy

### *Mid Sussex District Plan 2014-2031*

1.1.16 The Mid Sussex District Plan[10] (MSDP) was adopted as a new development plan document on 28th March 2018 and is the main planning document used by the Council when considering planning applications. The District Plan replaces the majority of the Mid Sussex Local Plan adopted in 2004.

1.1.17 The MSDP provides a framework for new development, employment growth, infrastructure and as a measure to ensure the protection of the countryside. It also guides other planning documents, such as Neighbourhood Plans and site Allocation Plans.

1.1.18 Any development in the countryside must comply with policy D29: Noise, Air, Pollution.

1.1.19 The MSDP states the following:

*"...the quality of people life will be protected from unacceptable levels of noise, light and air pollution by only permitting development where:*

- *It is designed, located and controlled to minimise the impact of noise on health and quality of life, neighbouring properties and the surrounding area;*
- *If it is likely to generate significant levels of noise it incorporates appropriate noise attenuation measures;*

*Noise sensitive development, such as residential, will not be permitted in close proximity to existing or proposed development generating high levels of noise unless adequate sound insulation measures, as supported by a noise assessment are incorporated within the development.*

*In appropriate circumstances, the applicant will be required to provide:*

- *An assessment of the impact of noise generated by a proposed development; or*
- *An assessment of the effect of noise by an existing noise source upon a proposed development"*

[9] Calculation of Road Traffic Noise, Department of Transport Welsh Office, HMSO, 1988

[10] Mid Sussex District Council (2016), Mid Sussex District Plan 2014 – 2031 Submission Version

### *Planning Noise Advice Document: Sussex*

1.1.20 The Planning Noise Advice Document - Sussex[11] (September 2021) is a cross Sussex guidance document relevant to various local authorities. The chapter relevant to new noise sensitive developments is Chapter 6 and the most relevant sections are 5.5.2 and 5.5.3 which set out design criteria of any proposed residential development in Sussex. The criteria presented are based on the internal levels outlined in BS 8233:2014 and additionally the internal LAmax recommendations from the WHO guidelines.

*"6.5.2. Design control measures should aim to meet the recommended standards set out in table 4 of BS 8233:2014 and regular night time noise events such as scheduled aircraft or passing trains which can cause sleep disturbance shall be minimized and assessed as (LAFmax), as recommended in the World Health Organisation's (WHO) Night Noise Guidelines for Europe (2009), unless there are particular reasons why this is not considered appropriate. In such cases, a clear explanation of the reasons should be provided.*

*5.5.3. While noise mitigation measures can be used to achieve suitable internal sound levels, preference is to be given to criteria based on windows being partially open."*

*6.5.5 Where the property is at risk of overheating an overheating assessment shall be conducted in accordance with Acoustics Ventilation and Overheating (AVO) Residential Design Guide (January 2020) and CIBSE's Design Methodology for the Assessment of Overheating Risk in Homes (TM59: 2017)."*

## Survey Methodology

### *Noise Survey*

1.1.21 An environmental noise survey was carried out by Temple in October and November 2022 in order to establish baseline noise levels across the Proposed Development.

1.1.22 The survey comprised of unattended noise measurements at five locations at the Proposed Development to obtain representative ambient daytime and night-time noise levels during a typical week and at a weekend. Additional attended measurements were also made during the survey at five locations at locations representative of the nearest noise sensitive receptors.

#### Unattended noise monitoring

1.1.23 Long term measurements were carried out at four locations between 27th October and 3rd November 2022, at one location during daytime on 27th October 2022.

[11] Sussex County (September 2021), Planning Noise Advice Document: Sussex.

Unattended day and night noise measurements were carried out to obtain representative daytime and night-time ambient noise levels at the most exposed facades of the Proposed Development:

- U1 (529294.1155, 123518.0698) Unattended monitoring position on the western site boundary facing the A272.
- U2 (529374.7528, 122836.3911) Unattended monitoring position on the south boundary facing the B2036.
- U3 (529733.5628, 123394.271) Unattended monitoring position in the centre of the Site.
- U4 (530140.0635, 123914.5397) Unattended monitoring position on the northern Site boundary facing the A272.
- U5 (530192.2796, 123811.006) Unattended monitoring position in the north western corner of the Site facing Cuckfield Sewage Treatment Works.

1.1.24 At locations U1 to U4, the microphone was installed at a height of approximately 1.2 m above local ground level and set to record LAeq, LAFmax, LA10 and LA90 sound pressure levels in 15-minute periods. These values were used to calculate sixteen and eight-hour daytime (07:00-23:00) and night-time (23:00-07:00) values respectively. At location U5 the eight hour values have been considered representative of the sixteen hour daytime values.

1.1.25 The microphone was considered to be under free field conditions at all locations.

### Attended Noise Monitoring

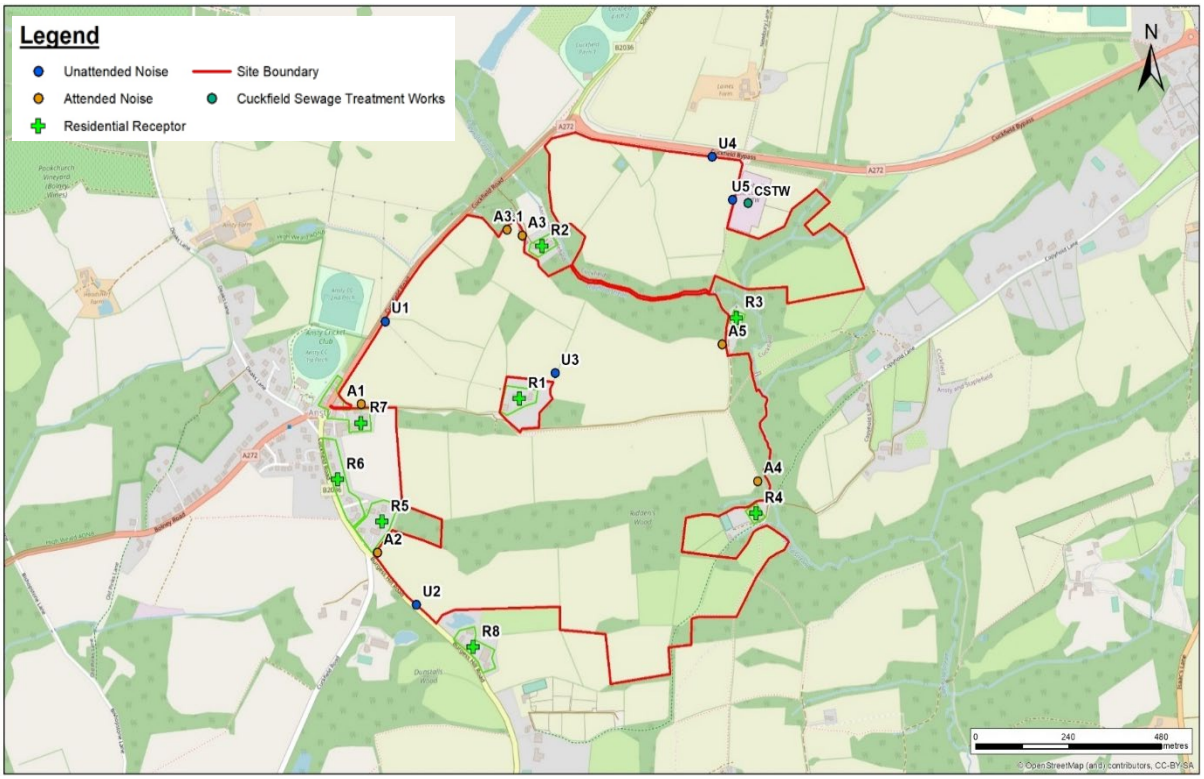
1.1.26 Attended daytime measurements were also carried out at two further locations within the Site on 27th and 31st October 2022.

- A1 (529231.9213, 123319.0987) Attended monitoring position representative of residential receptors along Private Access Road.
- A2 (529273.9584, 122962.2704) Attended monitoring position representative of residential receptors along B2036
- A3 (529648.8009, 123724.3711) Attended monitoring position representative of residential receptors at Highbridge Mill and Cottages 1 & 2
- A3.1 (529609.4159, 123739.0403) Attended monitoring position representative of residential receptors at
- A4 (530258.1155, 123133.9026 Attended monitoring position representative of residential receptors at Old Furnace, Copyhold Ln.
- A5 (530166.1462, 123462.8862) Attended monitoring position representative of residential receptors at Mackerels Farm Cottage.

1.1.27 At each location, the microphone was mounted on a tripod at a height of approximately 1.2 m above local ground level and set to record LAeq, LAFmax, LA10 and LA90 sound pressure levels in 15-minute periods. The microphone was considered to be under free field conditions at all locations.

1.1.28 **Figure 1** shows the locations of the attended and unattended noise measurements.

**Figure 1 Survey measurement locations**




*Equipment and weather conditions*

1.1.29 **Table 1** below details the noise monitoring equipment used during survey. All noise monitoring equipment was calibrated prior to and post measurement, no significant drift occurred. The sound level meters and vibration monitor are laboratory calibrated biennially, and the calibrator is laboratory calibrated annually, all to traceable national standards. Calibration certificates are available on request.

**Table 1 Survey Equipment**

| Manufacture | Item | Type | Serial Number |
|---|---|---|---|
| Rion | NL-52 | Sound level meter | 00510141 |
| Rion | NL-52 | Sound level meter | 00410086 |
| Rion | NA-28 | Sound level meter | 00680885 |
| Rion | NA-28 | Sound level meter | 00881067 |
| Rion | NA-28 | Sound level meter | 01260205 |
| Rion | NA-28 | Sound level meter | 01170653 |

| Manufacture | Item | Type | Serial Number |
|---|---|---|---|
| Rion | NC-74 | Calibrator | 35173548 |

1.1.30 The weather conditions varied throughout the week with some periods of heavy rainfall. Periods of precipitation have been removed from the data to avoid any influence on the reported results. Wind speeds were below 5m/s throughout and therefore no data has been removed due to high wind speeds.

## Survey Results

### Noise

1.1.31 The existing noise climate at the most exposed facades of the Site were dominated by road traffic noise from the surrounding road network.

- Unattended Position 1 (U1) - the noise climate at this location was dominated by continuous road traffic noise from the A272.
- Unattended Position 2 (U2) - the noise climate at this location was dominated by regular road traffic noise from the B2036.
- Unattended Position 3 (U3) - the noise climate at this location was dominated by continuous distant road traffic noise from the A272. Domestic noise from the nearby properties was also audible at this location.
- Unattended Position 4 (U4) - the noise climate at this location was dominated by continuous road traffic noise from the A272.
- Unattended Position 5 (U5) - the noise climate at this location was dominated by plant noise from the Cuckfield Sewage Treatment Works, continuous road traffic noise from the A272 was also audible.
- Attended Position 1 (A1) - the noise climate at this location was dominated by continuous road traffic noise from the A272. Other audible noise sources at this location included traffic and pedestrians along the Site Private Access Road and birdsong.
- Attended Position 2 (A2) the noise climate at this location was dominated by regular road traffic noise from the B2036. Other audible noise sources at this location included birdsong and distant agricultural plant.
- Attended Position 3 (A3) - the noise climate at this location was dominated by continuous road traffic noise from the A272. Other audible noise sources at this location included birdsong and distant aircraft noise.
- Attended Position 4 (A4) - there was no singular dominant noise source at this location. Audible noise sources at this location included pedestrians walking dogs

on the nearby footpath, distant aircraft noise, distant road traffic noise from the A272 and birdsong.

- Attended Position 5 (A5) - there was no singular dominant noise source at this location. Audible noise sources included pedestrians walking dogs on the nearby footpath, distant aircraft noise, distant road traffic noise from the A272, birdsong and domestic noise from Mackerels Farm Cottage.

1.1.32 The results of the measured daytime and night-time continuous noise measurements at the unattended monitoring locations are presented in **Table 2**.

1.1.33 At Locations U1 to U4 the day/night-time $L_{Aeq,T}$ has been calculated for each day, and the typical $L_{Aeq,T}$ is the arithmetic average of all the day/night-time values. The typical $L_{AFmax}$ has been based on the tenth highest occurring $L_{AFmax}$ on the worst-case night. The typical $L_{AF90}$ (background sound level) has been calculated by undertaking a statistical analysis of how often the levels occur during the day/night period in accordance with methods presented in BS 4142.

**Table 2 Summary of Unattended Noise Survey Results**

| Parameter | Period | U1 | U2 | U3 | U4 | U5* |
|---|---|---|---|---|---|---|
| Typical $L_{Aeq,T}$, dB | Day (07:00-23:00) | 65 | 62 | 48 | 64 | 52 |
| | Night (23:00-07:00) | 55 | 51 | 30 | 55 | n/a |
| Maximum $L_{Aeq,30mins}$ | Day (09:00-16:30) | 69 | n/a | n/a | n/a | n/a |
| Typical (10th highest) $L_{AFmax}$, dB | Night (23:00-07:00) | 77 | 77 | 60 | 78 | n/a |
| Typical Lowest $L_{AF90}$, dB | Day (07:00-23:00) | 38 | 37 | 36 | 39 | 46 |
| | Night (23:00-07:00) | 25 | 29 | 24 | 36 | n/a |

*Measurements at U5 were undertaken for one day only between 13:00 and 23:00.

1.1.34 The results from the attended daytime noise survey are presented in **Table 3**.

**Table 3 Summary of Attended Daytime Noise Survey Result**

| Location | Date/Time | $L_{Aeq,15min}$ dB | $L_{A90,15min}$ dB |
|---|---|---|---|
| A1 | 31/10/2022 14:24 | 53 | 46 |
| A1 | 31/10/2022 16:18 | 54 | 49 |
| A1 | 31/10/2022 17:11 | 54 | 51 |
| A2 | 27/10/2022 12:56 | 58 | 44 |
| A2 | 27/10/2022 15:28 | 58 | 45 |
| A2 | 27/10/2022 17:25 | 58 | 45 |
| A3 | 27/10/2022 12:20 | 48 | 45 |
| A3 | 27/10/2022 14:47 | 47 | 44 |
| A3.1 | 27/10/2022 17:47 | 54 | 51 |
| A4 | 31/10/2022 13:55 | 39 | 34 |
| A4 | 31/10/2022 15:16 | 41 | 35 |
| A4 | 31/10/2022 16:42 | 42 | 38 |
| A5 | 27/10/2022 11:30 | 47 | 39 |

| Location | Date/Time | $L_{Aeq, 15min}$ dB | $L_{A90, 15min}$ dB |
|---|---|---|---|
| A5 | 27/10/2022 14:20 | 40 | 38 |
| A5 | 27/10/2022 16:47 | 42 | 38 |

## 1.2 Assumptions and Limitations of Noise Calculations

### Construction Noise

1.2.1 Calculations of construction noise have been carried out in accordance with BS 5228 Part 1 in order to calculate the likely noise levels at varying receptor distances during the worst-case construction period. Construction plant has been based on indicative typical plant and equipment presented in **Table 4** below.

1.2.2 The assessment includes assumed likely percentage on times for the construction plant and assumes screening provided by site hoarding where required.

**Table 4 An indication of typical types of plant and equipment associated with the construction**

| Plant and Equipment | Stage of Works | | | | |
|---|---|---|---|---|---|
| | Enabling Works | Substructure | Superstructure | Envelope | Fit-Out |
| Excavator | ✓ | ✓ | | | |
| Articulated Dump Truck | ✓ | ✓ | | | |
| Drills / Cutters | ✓ | ✓ | ✓ | | ✓ |
| Compacter / Roller | | ✓ | | | |
| Concrete Pump | | ✓ | ✓ | | |
| Generators | | | ✓ | | |
| Floodlights | ✓ | ✓ | ✓ | ✓ | ✓ |
| Scaffolding | | ✓ | ✓ | ✓ | ✓ |
| Asphalt Plant | | | | ✓ | ✓ |
| Forklift Truck | | | ✓ | ✓ | ✓ |
| Skips and Skip Trucks | ✓ | ✓ | ✓ | ✓ | ✓ |

1.2.3 **Table 5** below gives input information used regarding the plant for the construction activities presented.

**Table 5 BS 5228 Construction noise calculation input information**

| CMP plant category | BS5228 Description | BS5228 Reference | BS5228 Leq@10m | Assumed Quantity | Activity $L_{Aeq(10h)}$ |
|---|---|---|---|---|---|
| Excavator | Tracked excavator | C.4.65 | 71 | 2 | 74 |
| Compacter/Roller | Vibratory Roller | C.5.25 | 75 | 2 | 78 |
| Floodlights | Diesel generator (power for lighting) | C.4.86 | 65 | 2 | 68 |
| Articulated Dump Truck | Articulated dump truck 25T | C.5.16 | 81 | 2 | 84 |
| Drills / Cutters | Hand-held hammer | D.2.15 | 84 | 1 | 84 |
| Concrete generation | Concrete pump + cement mixer truck (discharging) | C.4.24 | 67 | 1 | 67 |
| Generators | Generator (power for site cabins) | C.8.24 | 59 | 2 | 62 |
| Scaffolding | Scaffold poles and clips (dismantling) | D.7.1 | 80 | 1 | 80 |
| Asphalt Plant | Asphalt spreader, chip spreader, road roller, lorry | D.8.26 | 80 | 1 | 80 |
| Fork Lift Truck | Telescopic handler | C.2.35 | 71 | 2 | 74 |
| Skips and skip trucks | Skip wagon ж | C.8.21 | 78 | 1 | 78 |

## Model Results

1.2.4 **Table 6** below presents the noise level during each construction phase at worst case and typical distances representative of nearby receptors to the Proposed Development (facade levels).

**Table 6 Construction noise assessment results $L_{Aeq,\ 10hr}$ dB**

| Activities | 25 m | 35 m | 50 m | 65 m | 70 m | 80 m | 110 m | 150 m | 200 m | 300 m | 400 m | 500 m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Enabling and Site Preparation | 69 | 67 | 65 | 64 | 63 | 62 | 59 | 56 | 54 | 50 | 48 | 46 |
| Substructure | 68 | 66 | 64 | 62 | 61 | 60 | 58 | 55 | 52 | 49 | 46 | 44 |
| Superstructure | 65 | 63 | 60 | 58 | 57 | 56 | 53 | 51 | 48 | 45 | 42 | 40 |
| Envelope | 63 | 61 | 58 | 57 | 56 | 55 | 52 | 49 | 47 | 43 | 41 | 39 |

| Activities | 25 m | 35 m | 50 m | 65 m | 70 m | 80 m | 110 m | 150 m | 200 m | 300 m | 400 m | 500 m |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fit Out | 64 | 61 | 59 | 57 | 56 | 55 | 52 | 50 | 47 | 44 | 41 | 39 |

### Construction Vibration

1.2.5 Based on assumptions of a typical vibratory roller, a double drum Bomag BW 135 AD vibratory roller, free-field resultant PPVs have been calculated using the following calculation from the TRL Report 429 'Groundborne vibration caused by mechanised construction works'.

$$V_{res} = K_s\sqrt{n_d}\left[\frac{A}{x + L_d}\right]^{1.5}$$

Where:

$V_{res}$ is the resultant Peak Particle Velocity

$K_s$ is the scaling factor assumed to be 143 (33.3%)

$n_d$ is the number of vibrating drums assumed to be 2

A is the maximum amplitude of drum vibration assumed to be 0.4

x is the ground distance measured along the ground distance, m

$L_d$ is the vibrating roller drum width, m assumed to be 1.3

### Road Traffic Noise

1.2.6 Changes in road traffic noise emissions during the construction and operational phases of the development have been calculated using the prediction method outlined in CRTN and assessed against DMRB criteria. Road traffic data input in these calculations has been provided by the applicant's transport consultant. The results of the construction road traffic noise assessment are presented in **Table 7**.

**Table 7 Construction road traffic noise assessment results**

| Road | Predicted Change in Traffic Noise Level, $L_{A10,18hr}$ dB | Short Term Impact Level |
|---|---|---|
| A272 Bolney Road | 0.1 | Negligible |
| A272 Tylers Green | 0.1 | Negligible |

1.2.7 The results of the operational road traffic noise assessment are presented in **Table 8**.

**Table 8 Operational road traffic noise assessment results**

| Road | Predicted Change in Traffic Noise Level, $L_{A10,18hr}$ dB | Short Term Impact Level |
|---|---|---|
| Holmstead Hill (North of Sough Green) | 0.3 | Negligible |
| Staplefield Road / Whitemans Green | 0.2 | Negligible |
| B2036 Brook Street (North of Whitemans Green) | 0.2 | Negligible |
| Whitemans Green (Between Co-op and Ardingly Road Roundabouts) | 0.1 | Negligible |
| Ardingly Road (East of Roundabout) | 0.5 | Negligible |
| London Road (Between Ardingly Road and Rose and Crown Roundabouts) | 0.3 | Negligible |
| B2184 London Road (adjacent to Cuckfield Village Hall) | -0.1 | Negligible Beneficial |
| B2036 (South Street) | 0.8 | Negligible |
| A272 (Between B2036 and B2184) | -0.3 | Negligible Beneficial |
| A272 (Between B2036 and Site Access Roundabout) | -0.1 | Negligible Beneficial |
| A272 (Tyrlers Green) | 0.1 | Negligible |
| B2184 Broad Street | -0.2 | Negligible Beneficial |
| A272 Tylers Green | 0.1 | Negligible |
| A272 (Isaac's Lane) | 0.1 | Negligible |
| B2272 Link (Between Bolnore Road and Paddockhall Road Roundabouts) | 0.1 | Negligible |
| B2272 (Muster Green South) | 0.1 | Negligible |
| Boltro Road | 0.1 | Negligible |
| B2272 (Northern side of Muster Green Roundabout) | 0.1 | Negligible |
| B2272 (Eastern side of Muster Green Roundabout) | 0.1 | Negligible |
| B2272 (South east of Muster Green Roundabout) | 0.1 | Negligible |
| B2112 (Hazelgrove Road) | 0.1 | Negligible |
| Caxton Way | 0.1 | Negligible |
| B2272 (Franklynn Road) | 0.1 | Negligible |
| B2112 (Wivelsfield Road) | 0.1 | Negligible |
| Parkfield Way (West of A272/A273 Roundabout) | 0.1 | Negligible |
| A272 (Traunstein Way) | 0.2 | Negligible |

| Road | Predicted Change in Traffic Noise Level, $L_{A10,18hr}$ dB | Short Term Impact Level |
|---|---|---|
| A272 (Rocky Lane (East of Foxhill Roundabout)) | 0.2 | Negligible |
| B2112 Fox Hill | 0.1 | Negligible |
| A272 Rocky Lane (West of Foxhill Roundabout)) | 0.1 | Negligible |
| A272 Rocky Lane (West of Sandrocks Roundabtou) | 0.1 | Negligible |
| Traunstein Way (West of Highbank Roundabout) | 0.1 | Negligible |
| A23 On-slip (Northbound) | 0.9 | Negligible |
| A23 Off-slip (Northbound) | -0.1 | Negligible Beneficial |
| Link Road (Between A23 Northbound Sliproad Roundabout and Cowfold Road) | 0.9 | Negligible |
| A272 (Between Site Access Roundabout and Antsy) | 0.2 | Negligible |
| A272 Cowfold Road (Underpass of A23) | 0.3 | Negligible |
| A23 Off-slip (Southbound) | 0.6 | Negligible |
| A272 Bolney Road | 0.2 | Negligible |
| B2036 Harvest Hill (Between Antsy and Cuckfield Road) | -0.4 | Negligible Beneficial |
| B2036 Harvest Hill (Between Cuckfield Road and Southern site Access Roundabout) | 0.4 | Negligible |
| Cuckfield Road (Between B2036 and A2300) | 1.1 | Negligible |
| B2036 Plains Flat | 0.4 | Negligible |
| A2300 (Between Cuckfield Road Roundabout and Link Road Roundabout) | 0.1 | Negligible |
| Cuckfield Road (South of A2300) | 0.3 | Negligible |
| A2300 (West of Cuckfield Road Roundabout) | 0.1 | Negligible |
| A273 (Jane Murray Way (East of Link Road Roundabout)) | 0.1 | Negligible |
| A273 (Jane Murray Way (West of Link Road Roundabout)) | -0.6 | Negligible Beneficial |
| A273 Sussex Way (Between Sussex Way Roundabout and Fairplace Hill South Roundabout) | 0.1 | Negligible |
| Sussex Way (South of Sussex Way Roundabout) | 0.1 | Negligible |
| B2036 London Road (South of Fairplace Hill South Roundabout) | 0.3 | Negligible |