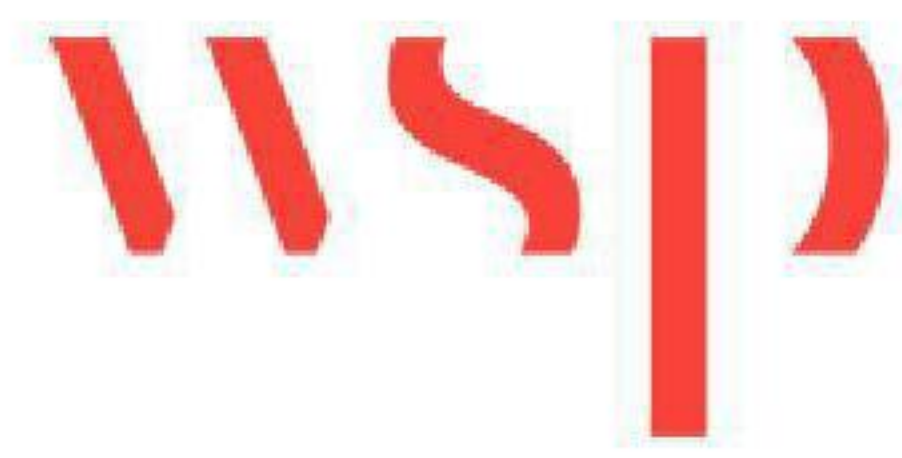




Planning Services
Mid Sussex District Council
Oaklands Road
Haywards Heath
RH16 1SS

Our Ref: UK-62262205_1

22 December 2025

Dear Sir/Madam,

THE MARTLETS, BURGESS HILL

S.73 APPLICATION TO VARY CONDITION 14 (DELIVERY HOURS) OF PLANNING PERMISSION DM/25/1327

On behalf of New River Retail, please find enclosed an application made under S.73 of the Town and Country Planning Act (as amended) 1990 seeking a variation to planning permission LPA Reference DM/25/1327 for the above site, as approved on 17 September 2025. The permission was a previous variation of condition application relating to the original planning permission DM/19/331 for the redevelopment of The Martlets shopping centre in Burgess Hill town centre.

Background

The Martlets is a key part of Burgess Hill town centre and has been the subject of redevelopment proposals for several years. Planning permission DM/19/3331 was originally granted for the site on 2 July 2021, permitting a mixed-use development with the approved description of development as follows:

Demolition of multi-storey car park, public library and offices. The conversion of existing buildings and erection of new buildings to provide, additional retail floor space (Classes A1 and A3), residential units (Class C3) with undercroft car parking, a multi-screen cinema (Class D2), bowling alley (Class D2), gymnasium (Class D2), a hotel (Class C1), the reconfiguration and expansion of existing public car park, amendments to the site access, public realm improvements including landscaping, and other associated works (revision of DM/15/3858 and DM/18/1580). (Amended plans received 19th June including one additional residential units, design amends and additional transport information)

Following the approval of DM/19/3331, four non-material amendment applications have been approved, with details below:

- DM/22/1892. Non-Material Amendment relating to planning application DM/19/3331 to amend the approved drawings within the permission to make minor non-material changes to the proposed scheme. Approved 11.07.22. This NMA solely relates to changed to the approved Block A2 basement, ground and first floors.

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- DM/24/1064 - Non Material amendment to planning application DM/19/3331 - to amend the wording of Condition 8 (contamination). Approved 07.05.24. The NMA amended the wording of Condition 8 to allow for facilitating demolition works to occur prior to intrusive investigations to be undertaken on the wider site.
- DM/24/3117 - Non Material Amendment to planning application DM/19/3331: Amendment to proposed description of development to remove the last sentence referencing amended plans. Approved 14.03.25.
- DM/25/0290 - Non Material Amendment to application DM/19/3331 - Amending wording of conditions 4,5,22 and 23 to allow demolition works to occur prior to providing technical information and to allow the partial discharge of condition 23 - please refer to the cover letter for further details. Non-material amendment relating to planning permission ref. DM/19/3331 to amend the wording of condition 8 (contamination). Amend the approved drawings within the permission to make minor non-material changes to the proposed scheme (condition 29). Approved 18.02.25.

A further S.73 variation of condition application was then approved on 17 September 2025 (LPA Ref. DM/25/1327) which approved several changes to the original planning permission drawings to improve the viability and deliverability of the scheme.

Amendments sought to Condition 14

Condition 14 of the existing planning permission restricts delivery and servicing hours for the commercial units within the development, as follows:

No commercial goods or commercial waste shall be loaded or unloaded onto or from a delivery or collection vehicle and no such vehicles shall arrive or depart, within the application site except between the hours of 07:30 - 20:00 hours Monday to Saturday and 08:00 - 18:00 hours Sunday and Bank Holidays.

The prospective occupiers of the larger retail units within the scheme have identified that these hour restrictions are onerous and potentially limit the ability to occupy the proposed units. This application, therefore, seeks to extend the hours in the condition to between 06:00 – 20:00 hours Monday to Saturday. This additional 1.5 hours in the morning will allow the prospective convenience retailer to take morning deliveries which is crucial for their operating model.

The primary rationale for condition 14 is to protect the amenity of adjacent occupiers of the site, particularly the residential units that sit around the service yard from noise. To assist in assessing the impacts of increasing the delivery hours condition a Noise Impact Assessment (NIA) has been prepared by KP Acoustics and is provided within this application.

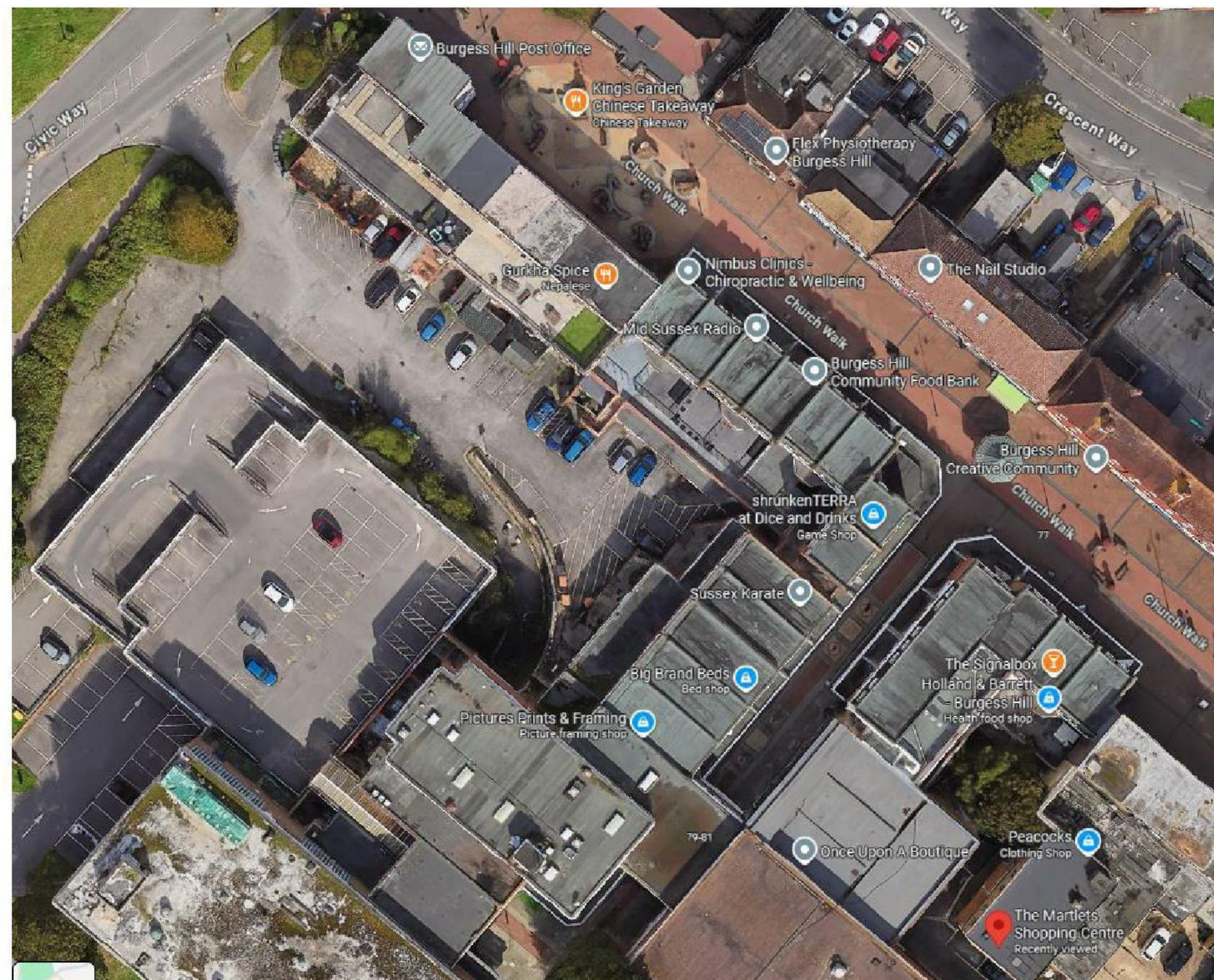
The analysis within the NIA finds that noise within the existing service yard during this early morning period is low and, therefore, introducing servicing activity to the yard will likely result in additional possible noise disturbance. These findings are skewed, however, by the fact that the service yard is currently barely operating as the majority of the units it serves are now vacant pending the redevelopment.

To mitigate these findings and potential impacts it is suggested that an additional condition is included within S.73 to secure further noise mitigations as set out below. A key aspect of this is a restriction that between 06:00 and 07:00 any servicing must only be carried out by electric vehicles. This would significantly reduce the possible noise impacts during deliveries as the primary contributor to noise disturbance is the trucks entering and exiting the service yard. Electric Heavy Good Vehicles (HGVs) are significantly quieter than petrol/diesel trucks, mitigating this impact.

A similar noise survey was undertaken in this location when the site was fully operational back in 2015 as part of the planning application DM/15/3858 (**Appendix 1**). This survey identified a higher level of noise during the night-time period in this location than the most recent survey results which is unsurprising as at the time of this survey the town centre was almost fully operational.

The historic noise conditions are highly material to the consideration of this application as this represents the existing lawful position of the service yard. There is a risk that if this S.73 application is refused then a key occupier for the retail accommodation within the proposed development will not be able to operate within the site. Without this, it is highly unlikely that the development would be viable and if not delivered then the existing accommodation within the site would most likely be refurbished and re-occupied. This scenario is, therefore, a highly material fall-back position for consideration in this application

The retail service yard within the proposed development (accessed from Civic Way) is in the same location as the current servicing area that services the existing units as shown below. Whilst these units are smaller than what is proposed they do include the existing large retail unit that was previously occupied as a supermarket. It is, therefore, not unreasonable to conclude that servicing of the existing units on the site in this location would not be dissimilar to the proposed levels of servicing within the development.





There are currently no restrictions on the servicing of these units within the existing baseline scenario. Therefore, in theory, deliveries could take place throughout the night-time and with no additional conditions / restrictions that are being proposed as set out below.

The application will provide betterment through mitigation in the form of the deliver hours restrictions and the recommendations suggested within the KP Acoustics NIA. Cumulatively, these mitigations will improve the residential amenities of the residential properties close to the proposed servicing area when compared with the existing arrangements. As part of this submission we propose that the following measures are integrated via a new / amended planning condition in addition to the proposed delivery hours restrictions:

1. No petrol / diesel vehicles shall be used for deliveries before 7AM
2. No reversing alarms shall be used on vehicles before 7AM
3. Vehicle engines shall not be left running idle for longer than 2 minutes
4. All loading and unloading to be undertaken internally through the use of loading pods
5. Management measures to control external noise through reasonable endeavours such as:
 - a. Limit use of metal trolleys
 - b. Encourage unloading of trolleys etc.. within the store demise
 - c. Ensure staff awareness to limit external noise

Overall, these additional measures will provide betterment over the existing situation which, as demonstrated, is a materially relevant fall-back position.

Conclusions

Crucially, for the planning balance exercise, the proposed changes to the servicing hours condition are important to the deliverability of a key strategic development for Burgess Hill Town Centre. Whilst proposed deliveries in the yard will result in increased noise levels compared to the existing largely vacant situation, the noise impacts will not be dissimilar to night-time noise levels recorded in this location when the site was fully operational in 2015.

A suite of mitigation measures have been suggested to further limit the potential noise impacts of the servicing during the 6-7am period.

We trust the above is acceptable and look forward to liaising with officers in regard to this minor amendment. If you have any queries please do not hesitate to contact myself or my colleague Rose Sharkey.

Yours faithfully

A large black rectangular box redacting the signature of Michael Wood.

Michael Wood
Technical Director



Appendix 1

Report

22 September 2015



Report for – New River Retail (UK) Ltd
T3121 – Martlets Shopping Centre Redevelopment, Burgess Hill
Martlets Shopping Centre Site: Noise Assessment
FINAL



Document Version Control

Version	Date	Author	Reviewed by	Reviewed and Approved by
1.0	17/10/2014	Theo Hatzis	John Fisk	Giulia Civello
2.0	01/12/2014	Theo Hatzis	John Fisk	Giulia Civello
3.0	22/09/2015	Theo Hatzis	John Fisk	Giulia Civello

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This report has been prepared by the Temple Group Ltd (Temple) with reasonable skill, care and diligence within the agreed scope and terms of contract and taking account of the manpower and resources devoted to it by agreement with its client.

The advice and opinions in this report should be read and relied on only in the context of the report as a whole, taking account of the terms of reference agreed with the client. The findings are based on the information made available to Temple at the date of the report and on current UK standards, codes, technology and practices as at that time. They do not purport to include any manner of legal advice or opinion. New information or changes in conditions and regulatory requirements may occur in future, which will change the conclusions presented here.

The content of this report is, at least in part, based upon information provided by others and on the assumption that all relevant information has been provided by those parties from whom it has been requested. Information obtained from any third party has not been independently verified by Temple, unless otherwise stated in the report.

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1.0 Introduction

Temple Group has been appointed by New River Retail (UK) Ltd to undertake an environmental noise survey for a proposed mixed-use redevelopment of the Martlets Shopping Centre in Burgess Hill.

The proposed application is for a mixed use development comprising residential, retail and leisure, including a library and hotel.

The key purpose of this noise assessment is to identify any potential noise impacts associated with the proposed development, to assess whether this would be within acceptable levels and where appropriate, recommend suitable mitigation measures.

This noise assessment is based upon noise survey information collected at the site between the 25th September and 1st October 2014. Details regarding the assessment methodology used, together with results of the survey undertaken, and the subsequent conclusions and recommendations drawn are presented in the following report.

2.0 Noise Principles and Standards Used

2.1 National Policy

National Planning Policy Framework (NPPF) (March 2012)

The National Planning Policy Framework was introduced by the Department of Communities and Local Government in March 2012. The document sets out the Government's planning policies for England and how these are expected to be applied.

The planning system is required to contribute to and enhance the natural and local environment. Consequently, the aim is to prevent both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of noise pollution.

Therefore planning policies and decisions should aim to:

- avoid noise from giving rise to significant adverse impacts on health and quality of life as a result of new development;
- mitigate and reduce to a minimum other adverse impacts on quality of life arising from noise from new development, including through the use of conditions;
- recognise that development will often create some noise and existing businesses wanting to develop in continuance of their business should not have unreasonable restrictions put on them because of changes in nearby land uses since they were established; and
- identify and protect areas of tranquillity which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason.

Noise Policy Statement for England

The Noise Policy Statement for England (NPSE) seeks to clarify the underlying principles and aims in existing policy documents, legislation and guidance that relate to noise. The statement applies to all forms of noise, including environmental noise, neighbour noise and neighbourhood noise.

The statement sets out the long term vision of the government's noise policy, which is to *"promote good health and a good quality of life through the effective management of noise within the context of policy on sustainable development"*.

The guidance promotes the effective management and control of noise, within the context of Government policy on sustainable development and thereby aims to:

- avoid significant adverse impacts on health and quality of life;
- mitigate and minimise adverse impacts on health and quality of life; and
- where possible, contribute to the improvements of health and quality of life.

The statement adopts established concepts from toxicology that are currently being applied to noise impacts. The concept details noise levels, at which the effects of an exposure may be classified into a specific category. The classification categories as detailed within NPSE are as follows:

- No Observed Effect Level (NOEL) - the level below which no effect can be detected. Below this level no detectable effect on health and quality of life due to noise can be established;

- Lowest Observable Adverse Effect Level (LOAEL) - the level above which adverse effects on health and quality of life can be detected; and
- Significant Observed Adverse Effect Level (SOAEL) - the level above which significant adverse effects on health and quality of life occur.

It is recognised that SOAEL does not have a single objective noise-based level that is applicable to all sources of noise in all situations and therefore the SOAEL is likely to be different for different sources, receptors and at different times of the day.

No guidance has been issued at the time of writing to identify the SOAEL and LOAEL for typical noise sources and receptors.

Planning Practice Guidance - Noise

The National Planning Practice Guidance (NPPG) expands on the use of SOAEL: *“If the exposure is above this level the planning process should be used to avoid this effect occurring, by use of appropriate mitigation such as by altering the design and layout. Such decisions must be made taking account of the economic and social benefit of the activity causing the noise, but it is undesirable for such exposure to be caused.”*

The NPPG also goes on to identify unacceptable noise exposure: *“At the highest extreme, noise exposure would cause extensive and sustained changes in behaviour without an ability to mitigate the effect of noise. The impacts on health and quality of life are such that regardless of the benefits of the activity causing the noise, this situation should be prevented from occurring.”*

2.2 Local Planning Policy

Mid Sussex local Plan – May 2004

Policy B23 - Proposals for new developments, including roads, should be designed, located and controlled to minimise the impact of noise on neighbouring properties and the surrounding environment in order to protect the environment and residential amenity.

Applicants may be required to submit a noise impact study or to assess the effect of an existing noise source upon the development proposed.

Developments likely to generate significant levels of noise will only be permitted where it is satisfied that appropriate noise attenuation measures will be incorporated which would reduce the impact on adjoining land-uses, existing or proposed to acceptable levels. Particular attention will be given to the impact of noise generating developments within a Conservation Area, on a Listed Building and outside the built-up area.

Noise-sensitive development will not be permitted in close proximity to existing land uses (or programmed development) generating high levels of noise unless adequate sound insulation measures are incorporated within the development.

2.3 Standards and Guidance

British Standard 7445

British Standard (BS) 7445: 1991 ‘Description and Measurement of Environmental Noise’ defines parameters, procedures and instrumentation required for noise measurement and analysis.

British Standard 8233

British Standard 8233: 2014 ‘Guidance on Sound Insulation and Noise Reduction for Buildings’ provides criteria for the assessment of internal noise levels for various uses including dwellings and commercial properties. The standard suggests suitable internal noise levels within different types of buildings as shown in **Table 2.1**.

Table 2.1 – BS8233 Guideline Indoor Noise Levels for Dwellings

Activity	Location	07:00 to 23:00	23:00 to 07:00
Resting	Living Room	35 dB LAeq,16hour	-
Dining	Dining room/area	40 dB LAeq,16hour	-
Sleeping	Bedroom	35 dB LAeq,16hour	30 dB LAeq, 8hour

Note 7: Where development is considered necessary or desirable, despite external noise levels above WHO guidelines, the internal target levels may be relaxed by up to 5 dB and reasonable internal conditions still achieved.

It should be noted that recommendations for ambient noise in hotel bedrooms are similar to those for living accommodation (see **Table 2.1**).

The following **Table 2.2** is recommended internal noise levels for non-domestic buildings.

Table 2.2 – BS8233 Typical Noise Levels in Non-Domestic Buildings

Activity	Location	Design range dB LAeq,T
Speech or telephone communications	Department store	50-55
	Cafeteria, canteen, kitchen	
	Concourse	45-55
	Corridor, circulation space	
Study and work requiring concentration	Library, gallery, museum	40-50
	Staff meeting room, training room	35-45
	Executive office	35-40
Listening	Place of worship, counselling, meditation, relaxation	30-35

World Health Organisation

The World Health Organisation (WHO) Guidelines for Community Noise (1999) also sets out guidance on suitable internal and external noise levels in and around residential properties.

According to this document, to protect the majority of people from being seriously annoyed during the daytime, the sound pressure level on balconies, terraces and outdoor living areas should not exceed 55dB_{LAeq} for a steady, continuous noise. To protect the majority of people from being moderately annoyed during the daytime, the outdoor sound pressure level should not exceed 50dB_{LAeq}.

British Standard 4142

The standard provides a method of rating industrial noise affecting mixed commercial, residential and industrial units.

BS4142 rates industrial noise by comparing the predicted or measured L_{Aeq} noise levels from the industrial activity with existing background L_{A90} noise levels. If the industrial noise, exceeds the background noise by 10 dB or higher, complaints are likely. A difference of 5 dB is of marginal significance and smaller differences give minor likelihood of complaints. Differences of -10 dB are a positive indication that complaints are unlikely.

British Standard 7385

British Standard 7385: 1993 'Evaluation and Measurement for Vibration in Buildings' presents guide values or limits for transient vibration, above which there is a likelihood of cosmetic damage.

Calculation of Road Traffic Noise

Department of Transport/Welsh Office Memorandum 'Calculation of Road Traffic Noise (CRTN)' describes procedures for traffic noise calculation, and is suitable for environmental assessments of schemes where road traffic noise may have an impact. CRTN also contains a measurement method and shortened measurement procedure to measure values of noise from the actual flow on a road.

Planning Policy Guidance 24 (PPG24)

PPG24 has been superseded, however it does include useful guidance for correcting measured $L_{A10\ 18hour}$ values (using CRTN procedure) to $L_{Aeq, 18hour}$ values for use in assessment.

3.0 The Site and its Surroundings

The Martlets Shopping Centre is bounded to the west and north by Civic Way which forms part of the Burgess Hill inner ring road. To the south is Station Road (B2113) and to the north and east is Church Walk which is partially pedestrianised. Immediately to the east is the Market Place Shopping Centre. In addition to retail units, the site comprises community uses (including a library, gym and theatre/entertainment venue) other commercial floorspace and car parks. The environs around the site are mostly residential and commercial properties.

Road traffic noise from the aforementioned roads is the main component of the underlying ambient noise climate affecting the site.

The proposal will contain units for residential purposes, retail and leisure, including a library and hotel. Please see **Figure 1** in **Appendix 1** indicating the location of the site and the proposed site layout.

4.0 Measurement Methodology

The proposed development will be subject to noise generated by the following components:

- Road traffic noise – (Civic Way)

The above noise source has been measured in order to assess any potential impact it will have on future occupants of the proposed development.

4.1 Unattended Monitoring

A long-term unattended environmental noise survey was carried out at one location between 10:55 on Wednesday 25th September 2014 and 10:05 on Wednesday 1st October 2014 to obtain full daytime and night-time ambient noise monitoring results during weekdays and weekends. The measurement was carried out at the following location:

MP1: The microphone was set up on a tripod on a flat roof of the retail shop New Look approximately 3 storeys high (the microphone was therefore approximately 8m high) facing a car park used for deliveries for Iceland Foods and other shops.

All measurements locations are indicated in **Figure 1** in **Appendix 1**.

The sound level meter was set to measure continuous 5 minute time samples of $L_{Amax(FAST)}$, L_{A10} , L_{Aeq} and L_{A90} sound pressure levels.

4.2 Attended Measurements

Attended noise measurements were taken over two site visits to characterise the noise climate at various locations throughout the site more fully. All measurements locations are indicated in **Figure 1** in **Appendix 1**. Further detail regarding the attended measurement locations, including a description of their purpose is given below:

MP2: To the north west of the site facing Civic Way; intended to measure road traffic noise levels from Civic Way.

MP3: Outside existing flats on the rear of Martlets shopping centre facing the car park.

Measurements were carried out between 12:15 and 15:15 on 25th September 2014 and at 15:15 at position MP2, including a 3 hour measurement in light of the CRTN shortened measurement procedure. Measurements were also carried out at MP2 between 01:05 to 01:35 hours on the 26th September 2014.

Measurements were completed at MP3 between 09:40 to 10:27 hours on the 1st October 2014.

The sound level meter was set to measure continuous 5 minute time samples of $L_{Amax(FAST)}$, L_{A10} , L_{Aeq} and L_{A90} sound pressure levels during the measurement period.

For each measurement location the microphone was positioned at 1.5m height above the local ground level and away from any reflective façade (they are considered free field measurements).

4.3 Equipment and Weather Conditions

The equipment used is detailed in **Table 4.1** below. The sound level meters were fitted with windshields. Measurement systems were calibrated before and after the measurements, no variation occurred. Calibration certificates are available upon request.

Table 4.1 – SurveyEquipment			
Manufacturer	Item	Type	Serial Number
RION	Sound Level Meter	NL52	065546
RION	Sound Level Meter	NL52	065547
RION	Calibrator	NC-74	34936354

The weather conditions during the surveys were predominately dry with light winds. Wind speeds were below the recommended maximum limits of 5m/s.

5.0 Noise Survey Results

5.1 Unattended Ambient Noise Measurements

The results of the measured daytime and night-time continuous ambient noise measurements at the unattended location are presented in **Table 5.1**. Monitoring location MP1 is considered to be representative of free field conditions. A graph showing the time history of the measured results at the unattended monitoring location is given in **Figure 2** in **Appendix 2**.

The typical L_{A90} for measurement position MP1 has been derived by taking the average of minimum value in each day and/or night period.

The typical L_{Amax} has been derived by taking the average of all the L_{Amax} levels measured during the specified time period and adding one standard deviation of the results and checking this against visual interrogation of the time history graph.

Table 5.1 – Summary Noise Monitoring Results

Time Period	$L_{Aeq,T}$ dB	Typical minimum L_{A90} dB	Typical L_{AFmax} dB
MP1:Daytime 07.00-23.00h, T=16hrs	50.7	40.1	67.7
MP1:Night-time 23.00-07.00h T=8hrs	41.7	35.0	55.2

5.2 Attended Measurements

Table 5.2 shows the results of the road traffic noise measurements at Location MP2. $L_{A10,3hr}$ values have been corrected to $L_{Aeq,16hr}$ in accordance with CRTN and PPG24 guidance. The CRTN shortened measurement method involves taking traffic noise measurements (L_{A10}) over representative time periods within any three consecutive hours between 10:00 hours and 17:00 hours. By using the L_{A10} (3 hour), as the arithmetic mean of the measured L_{A10} (1hour) values, the L_{A10} (18 hour) value can then be calculated. The L_{A10} (18 hour) values were then converted into the equivalent L_{Aeq} (16 hour) values using the PPG24 correction (subtracting 2dB). The noise levels presented are considered to represent free field conditions, well away from any existing buildings. Approximate position of the unattended monitoring location is illustrated in **Figure 1** in **Appendix 1**.

Table 5.2 – Daytime Road Traffic Noise Measurements Results

Monitoring Location	Time	Noise Levels (dB)				Noise Levels (dB)	PPG24 Correction
		$L_{Aeq,1hr}$	$L_{A90,1hr}$	$L_{AFmax, 1hr}$	$L_{A10, 1 hour}$	Calculated $L_{A10,18 hour}$	Approx. $L_{Aeq,16h}$
MP2	25/09/2014 12:15-13:15	64.8	50.4	73.0	60.8	59.6	57.6
	25/09/2014 13:15-14:15	58.5	50.6	71.2	61.1		
	25/09/2014 14:15-15:15	58.6	50.4	74.5	60.5		

Sample attended measurements have been taken simultaneously with the unattended measurements. The results of the attended noise survey are below in **Table 5.3** and are considered to represent free field conditions well away from any existing buildings.

Table 5.3 – Attended Daytime and Night-time Noise Measurement Results

Location	Time Period	Measurement Period, T (minutes)	L _{Aeq,T} dB	L _{A90} dB	L _{AFmax} dB
MP2	26/09/2014 01.05-01.35	30	41.2	32.1	57.3
MP3	01/10/2014 09.40-10.27	20	51.1	47.4	73.9

Table 5.4 below gives results daytime and night time results at attended measurement positions MP2 and MP3. The values are either those directly measured (L_{max} is generally the average plus one standard deviation of the results measured during the time period) or a correction has been derived by taking the average of the difference measured between simultaneous measurements with the long term position and applying this to the long term result. Where applicable, the correction applied has been given in the table.

Table 5.4 – Attended Locations Corrected Results

Time Period	Correction from Long term - L _{eq}	L _{Aeq,T} dB	Correction from Long term - L _{max}	Typical L _{AFmax} dB
MP2:Daytime 07.00-23.00h, T=16hrs	N/A	57.6	N/A	74.5
MP2:Night-time 23.00-07.00h T=8hrs	+1.4	43.1	N/A	57.3
MP3:Daytime 07.00-23.00h, T=16hrs	-0.9	49.8	N/A	73.9
MP3:Night-time 23.00-07.00h T=8hrs	-0.9	40.8	-0.6	54.6

5.3 Survey Observations

The monitoring locations were chosen to give good representation of noise levels across the site, at locations that were accessible.

The dominant noise source in the existing noise climate was noted to be traffic noise from Civic Way. Other sources of noise contributing to a lesser degree to the local acoustic climate were noted to be vehicles in and out the car park facing Civic Way, pedestrians in Church Walk and in the shopping centre and noise from the car park used for loading and unloading at the rear of New Look retail shop. There was construction work on a building located south west of the monitoring location; however noise from this is not expected to significantly interfere with the survey results.

The nearest railway lines are located within 10 minutes' walk of the site to the south and were not audible and therefore are not considered as a source of noise affecting the site.

6.0 Noise Assessment

6.1 Internal Noise Level Requirements

The façades facing Civic Way have been assumed to be exposed to the noise levels measured at location MP2. The façades facing west of the development have been assumed to be exposed to the noise levels measured at location MP1. Other façades within the development will benefit from screening from the new buildings in the development and will therefore likely have lower noise levels. The assessment has focussed on the worst case façades for each of the uses to assess whether the proposed noise sensitive building use is suitable for the noise climate, or whether additional mitigation may need to be applied.

Table 6.1 shows the recommended internal noise criteria for non-domestic buildings for each space within the development.

Table 6.1			
Description	Measurement position which results are assumed to be representative of façade.	Internal Design Range Criteria	
		BS 8233	BB93
		$L_{Aeq,T}$	$L_{Aeq,T}$
GF Library	MP2	40-50	35-40
GF Retail Units 10-14	MP1	50-55	N/A
GF Retail Units 18-20	MP1	50-55	N/A

Table 6.2 shows the recommended internal noise criteria intended for residential buildings within the development (including the hotel).

Table 6.2				
Description	Measurement position which results are assumed to be representative of façade.	Internal Design Range Criteria		
		BS 8233		
		$L_{Aeq,16hr}$	$L_{Aeq,8hr}$	$L_{Amax, night}$
West residential facades	MP2	35-40	30-35	45-50
East residential facades	MP1	35-40	30-35	45-50

6.2 Internal Noise Level Assessment

The façades of the proposed development would be required to provide sufficient attenuation as to ensure that the guideline internal noise levels as provided in BS 8233 are met.

It is proposed that noise from residential rooms in the development is controlled to 30 dB L_{Aeq} and 45 dB $L_{A_{f,max}}$ in bedrooms at night and 35 to 40 dB L_{Aeq} in habitable rooms during the day in accordance with BS 8233:2014. To achieve these levels the sound insulation provided by the north west façade overlooking Civic Way will need to reduce the external noise levels by approximately R_{w+ctr} 23dB during the day and R_{w+ctr} 13dB at night. For rooms on the east façade the sound insulation provided by the façade will need to reduce the external noise levels by approximately R_{w+ctr} 16dB during the day and R_{w+ctr} 12 dB at night.

The required performance is typically achieved using acoustic double glazing (4mm glass/ 16mm air gap/ 6mm glass) in conjunction with acoustic passive ventilation.

For the south façades and the residential units and hotel overlooking the proposed new car park, the main noise intrusion will potentially be road traffic from Civic Way and vehicles using the car park area. It should be noted that the level of attenuation that the façade would be required to provide would decrease with increasing distance from the source.

The required performance is typically achieved using acoustic double glazing with an $R_w + C_{tr}$ of around 30 dB and in conjunction with acoustic passive ventilation. However, when windows are open, the attenuation afforded by a window can drop to as low as 10dB. Consequently, it may be necessary to provide a form of passive ventilation to negate the requirement for residents to open windows for ventilation purposes, specifically for buildings with road and car park frontages.

On the rear facing and more sheltered facades of the development, where noise levels are encountered a more standard natural ventilation system may be appropriate using attenuated ventilation openings.

Note that the detailed prediction of noise ingress is dependent upon the precise façade make up (glazed area etc.) and the acoustic characters of the proposed internal spaces. This information is not currently available, and as such the above advice has been provided to demonstrate that meeting the recommended internal noise levels is feasible, however a more detailed assessment may be required once the design progresses.

7.0 Operational Noise Limits

Noise levels from noise generating plant in the development should be controlled in order to prevent disturbance to neighbouring noise sensitive development. This includes noise from kitchen extract fans and plant such as air handling units. The nearest noise sensitive receptor to the site is the adjacent flats above Church Walk to the north.

Details of any potential mechanical plant and /or equipment for the development and their operating times are not available at the time of assessment. Therefore, at this stage, noise limits have been proposed which may be applied to the plant or equipment to control noise emissions to a suitable level.

The background noise levels (L_{A90}) predicted 1m from the windows of the nearest noise sensitive receptor are shown in **Table 7.1** below. The predicted noise levels are based on measured results at position MP3 with a precautionary façade correction applied (+1dB).

Table 7.1 Background Noise level at nearest receptor

Period	Background Noise Level, dB (A)
07:00-23:00	41
23:00-07:00	36

The corresponding external limits for the plant noise level are proposed in **Table 7.2** below. The limit applies to the measured or calculated specific noise level of the plant or equipment at 1m from the closest window of the relevant sensitive property during that time period. Should the noise from the chosen plant contain any impulsive or tonal characteristics, this level should be increased by 5 dB(A) as specified in BS 4142. The noise limits are based on the resulting plant noise impact being of less than marginal significance.

Table 7.2 Recommended Plant Noise Limits

Period	Plant Noise Level Limit, dB (A)
07:00-23:00	36
23:00-07:00	31

The maximum allowable noise levels from equipment can be achieved by applying one, or a combination, of the following recommended mitigation measures, if it is necessary:

- quieter equipment to be used if it is possible;
- carefully designed location of equipment;
- maximise the distance from the sensitive receptors;

If required, additional mitigation strategy can be considered, for example use of a silencer or an acoustic fence with sufficient height. Such mitigation assessments can be carried out upon the detail of equipment likely to be available.

8.0 Conclusion

Temple was appointed to undertake a noise assessment for the proposed redevelopment at the Martlets Shopping Centre in Burgess Hill. The assessment has been undertaken to determine the impact of noise associated with road traffic on the proposed mixed use residential development.

An unattended survey of the existing noise levels affecting the site was carried out between the 25th September 2014 and 1st October 2014. The existing site is subject to road traffic noise with the road (Civic Way) being the dominant noise source.

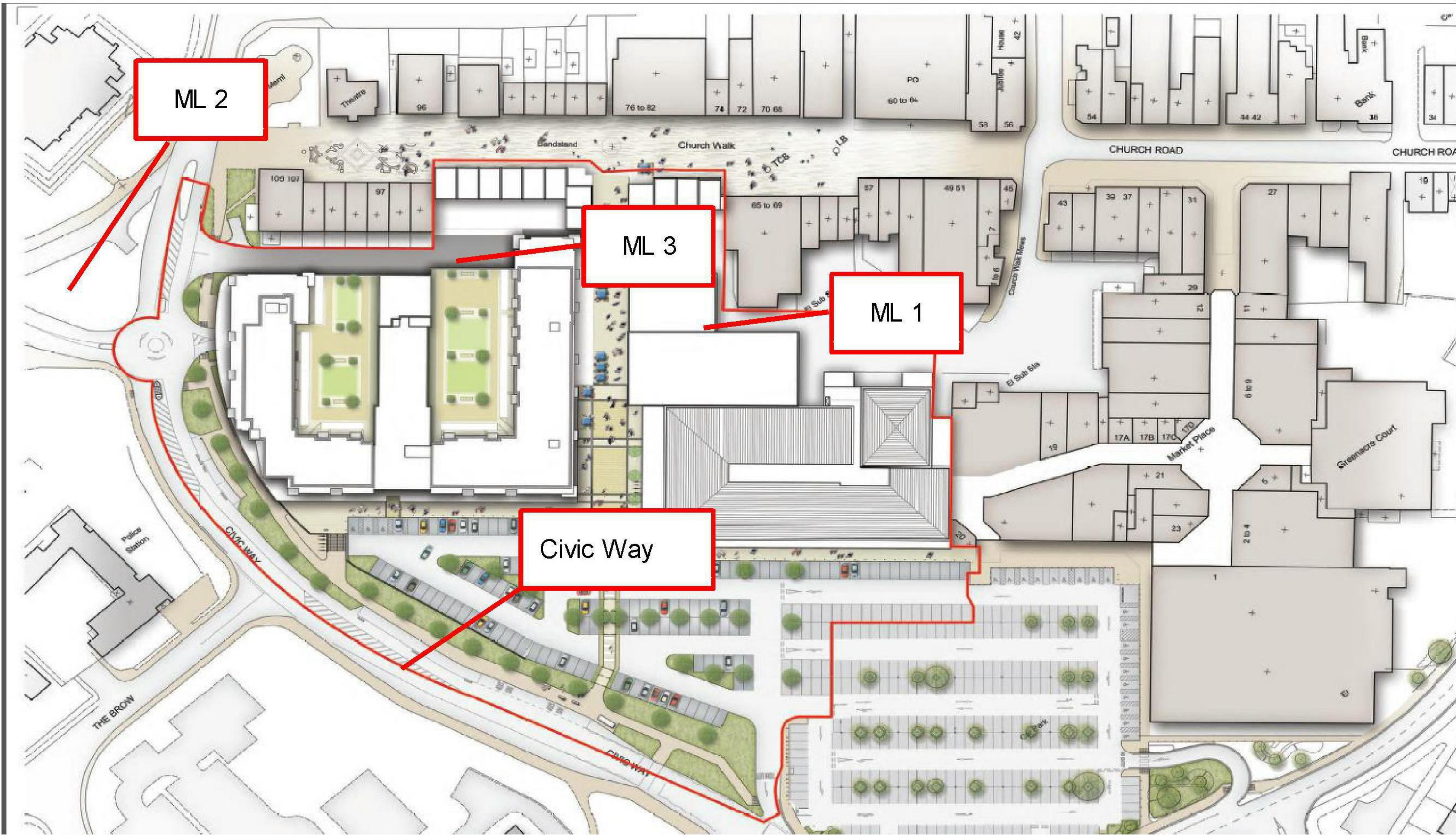
The assessment has shown that it is feasible to achieve suitable internal noise levels specified in BS 8233 in the sensitive rooms, including the residential living rooms and bedroom, hotel bedrooms and the library.

Standard acoustic double glazing and attenuated passive ventilation is likely to be required to the west façade facing Civic Way and conventional thermal double glazing and trickle ventilators to other facades.

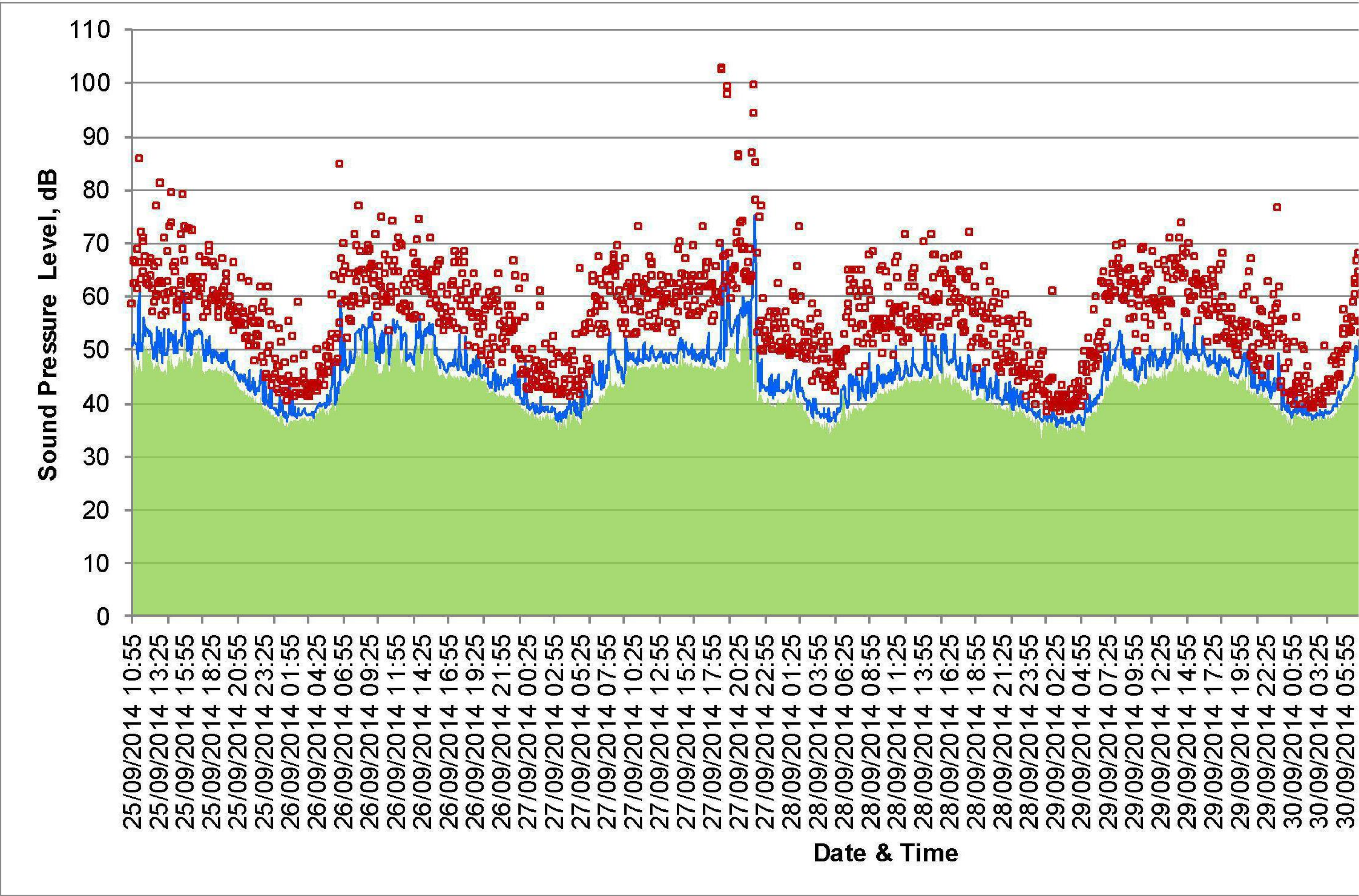
This is based on a simple assessment; detailed calculations may be required to demonstrate compliance with the recommended internal noise levels once the façade design has been finalised.

Noise limits have been proposed for noise generating plant which may be included as part of the development.

Appendix 1: Figure 1 – Noise Measurement Locations



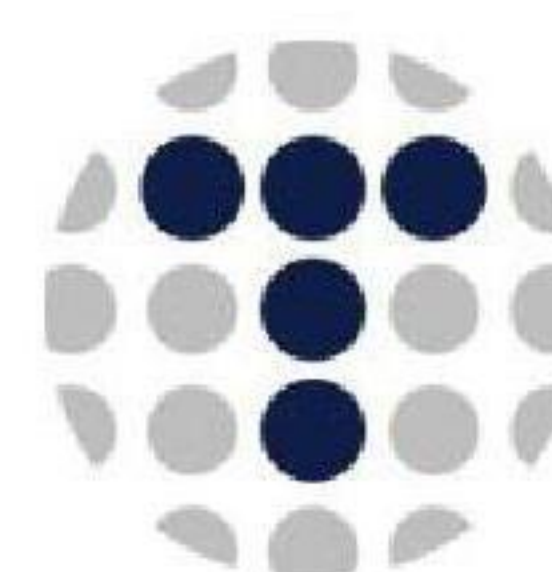
Appendix 2: Figure 2 – MP1: Unattended Noise Measurement Time History Graph



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