Our Case Number: ABP-314724-22

An Bord Pleanála

Conor and Lorraine Power
5 Dartmouth Square
Dublin 6

Date: 08 October 2024

Re: Railway (Metrolink - Estuary to Charlemont via Dublin Airport) Order [2022]
Metrolink. Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and City Centre to Charlemont, Co. Dublin

Dear Sir / Madam,

An Bord Pleanála has received your recent submission in relation to the above mentioned case. The contents of your submission have been noted.

More detailed information in relation to strategic infrastructure development can be viewed on the Board's website: www.pleanala.ie.

If you have any queries in relation to the matter please contact the undersigned officer of the Board at laps@pleanala.ie

Please quote the above mentioned An Bord Pleanála reference number in any correspondence or telephone contact with the Board.

Yours faithfully,

Kevin McGettigan
Executive Officer
Direct Line: 01-8737263

RA03

Teil	**Tel**	(01) 858 8100
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64 Marlborough Street
Dublin 1
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From: Loraine Mulligan <lorainemulligan@hotmail.com>
Sent: Monday, October 7, 2024 1:00 PM
To: LAPS <laps@pleanala.ie>
Cc: Conor Power <conor@conorpower.net>
Subject: Re Extended Consultation on proposed Metrolink

To whom it may concern,

Please see observation attached and related document/report.

I'd be grateful if you could confirm receipt and that everything is in order by reply.

Many thanks.

Kind Regards,

Loraine and Conor Power

7 October 2024

Loraine and Conor Power
5 Dartmouth Square West
Ranelagh
Dublin 6

Re Additional Information presented to the Oral Hearing on ABP Case Number: ABP-314724-22 / Railway (Metrolink – Estuary to Charlemont Via Dublin airport) Order [2022] Metrolink.

To whom it concerns,

We write on foot of an extension to the consultation period for the above which was ordered by An Bord Pleanala, arising from additional information submitted by Transport Infrastructure Ireland at the original Oral Hearing.

We would like to restate our objection to the proposed Metrolink Terminus at Charlemont and to be associated with the concerns raised by McCabe, Durney, Barnes Consultancy, on behalf of the broad Dartmouth/Charlemont community; Dartmouth Square West Residents and Dartmouth Road Residents respectively, in relation to the original Oral Hearing and the current call for further observations on new information that emerged during the process. For clarity, we do not object to the project as a whole but rather to the choice of Charlemont as a Terminus.

Since the Oral Hearing took place earlier this year, and in the absence of any effort by Transport Infrastructure Ireland to engage with us prior to then, we had a meeting with representatives of TII at which we sought answers to the serious issues that will affect our lives should Charlemont be approved as the Metrolink Terminus. Unfortunately, we did not receive satisfactory reassurances about the disturbance that goes with being in very close proximity to a construction site for nine years plus and the possibility of damage to our home. We had specific contact with Mr John Kinnear from Jacobs/TII on the risks involved in doing an extension to our house if the Metrolink works are approved and he outlined possible mitigation measures. However, we highlighted the concerns of the engineering expert engaged by our community for the Oral Hearing about possible impacts that have not been fully addressed by TII.

Nonetheless, we agreed to allow TII install a noise monitor in our garden to establish the normal/typical level of noise at our home. This took place in late July 2024 (see report attached). It was important to take a reading at this time because it was the first period in many years that we hadn't been dealing with elevated noise from the construction of the Hine's building behind our house. This is what normal should look like. Previous readings at adjacent locations may have picked up on the transit of big trucks, heavy machinery, men working and clattering materials etc., which was and is not the norm for our quiet community in ordinary circumstances.

The report showed that the noise levels in July 2024 were lower than those taken at receptors close-by during 2018. The report says that Category A, Construction Noise

Category, still applies which to us only confirms, based on our previous lived experience, that we will be expected to put up with raised noise levels during the Metrolink construction that are not acceptable. It brings back feelings of apprehension thinking about being woken every morning to rattling, banging, clanging, beeping, vibrations and other yet unknown sounds, all the while worrying about the structural integrity of the bricks and mortar surrounding us. It was hard enough at the time without the prospect of many further years of such noise in our ears and of overall uncertainty. We don't even have clarity on whether the noise barrier which has been put forward by TII as mitigation will be 4 meters or 7 meters. Either way, this unsightly measure proved ineffective during the Heine's development and seems more window dressing than anything.

The only confirmation we took from our meeting with TII was that we would be facing a very long timeframe for significant and noisy ground works and other construction works right outside our back door. This will have a profound impact on our family for a decade. This will be the backdrop to raising our four young children. This will be their childhood. We are being catapulted into an ongoing situation of stress through no fault of our own. We will do our best to protect our kids from this but the reality is that children pick up on what their parents are going through. For a period during the Hine's development, we could not use our back garden given the uncomfortable level of noise. Yet no rule was breached and nobody seemed to be enforcing rules anyway. This gives us no confidence for the future, while the prospect of a repeat situation seems inevitable. No alternative has been offered to us by the developer. It seems that we are simply expected to put up with it. This is not good enough. TII should not be allowed to act with such scant regard to their impact on individuals when it can be strongly argued that Charlemont is not a necessary component in providing a Metrolink to the airport and Swords. Charlemont is not a city centre location. It is primarily and essentially a residential area.

We trust that you will take our points seriously in your deliberations.

Yours sincerely,

Loraine and Conor Power

TECHNICAL NOTE

Project	**Metrolink**
Subject	**5 Dartmouth Square West Noise Monitoring Results – July 2024**
Author	**Jennifer Harmon**
Date	**17 September 2024**
Ref.	**247501.0646NT01a**

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Document History

Document Reference		Original Issue Date	
247501.0646NT01		29 August 2024	
Revision Level	**Revision Date**	**Description**	**Sections Affected**
a	17 September 2024	Section 2.5 added	n/a

Record of Approval

Details	Author	Checked / Approved by
Signature		
Name	Jennifer Harmon	Alistair MacLaurin
Title	Associate (Acoustics)	Senior Acoustic Consultant
Date	17 September 2024	17 September 2024

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1.0 INTRODUCTION

This report summarises the survey details and results for noise monitoring undertaken at 5 Darthmouth Square West, Ranelagh, Dublin 6 during July 2024.

2.0 SURVEY DETAILS

2.1 Survey Location

A noise meter was installed within the rear garden of 5 Darthmouth Square. The noise monitor was set back from the property façade by at least 2m. The microphone was extended on a tripod to a height of approximately 3.8m to above ground level.

The monitoring location is indicated in Figure 1 and the install of equipment is shown in Figure 2.

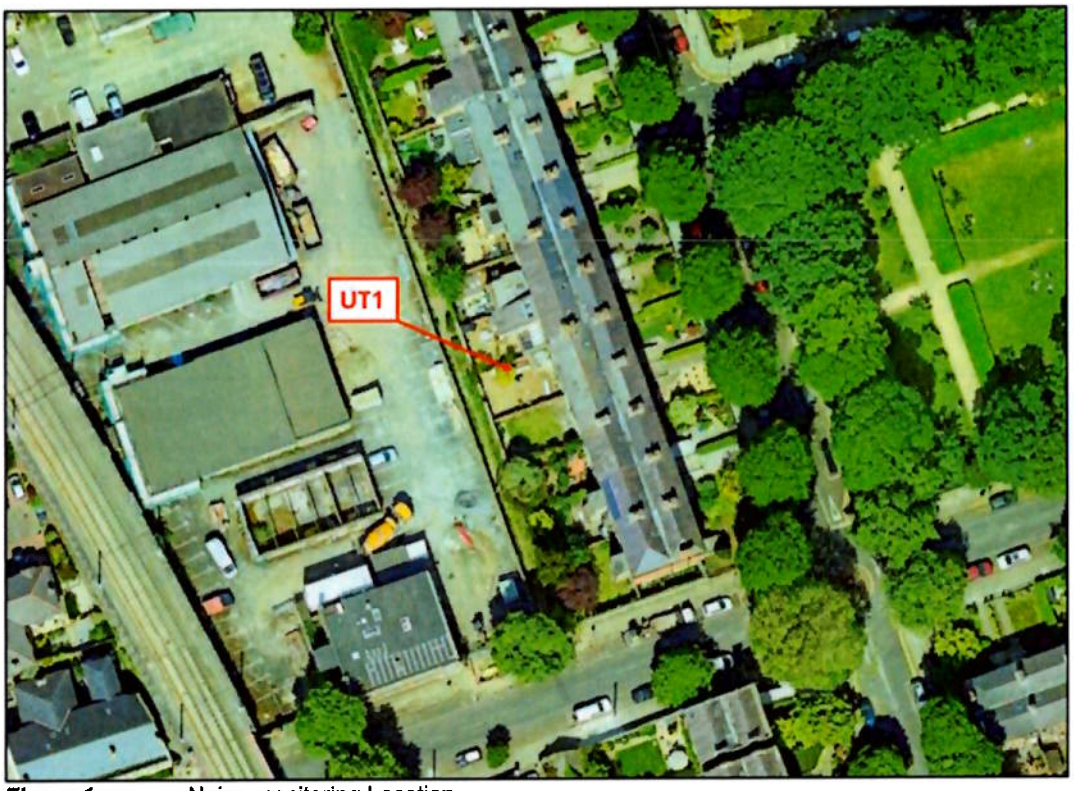

Figure 1 Noise monitoring Location

Figure 2 Noise meter Install

2.2 Monitoring Equipment and Survey Period

The survey was undertaken using RION NL-52 with a Rion WS-15 Outdoor Microphone Protection System with microphone extension cable and outdoor peli case. The equipment was calibrated before and after installation using a Bruel & Kjaer sound level calibration meter type 4231. The specific equipment details are summarised in Table 1. Calibration certificate of the monitoring equipment are included within Appendix A.

Equipment	Serial Number	Calibration Date
Rion NL-52	976162	02/09/2022
B&K 4231	2022651	21/03/2024

Table 1 Instrumentation Details

The equipment was installed on Friday 19 July and collected Tuesday 30 July 2024. The equipment was set to log over 15 minute intervals for the survey duration.

The monitoring survey was selected whilst the resident was on holidays hence activity within the property and garden were minimal. The resident noted some internal works were occurring within the property from 24th July and children were playing in the back garden on 29 July.

2.3 Survey Parameters

The following noise parameters were measured and presented for the monitoring location.

$L_{Aeq,T}$ is the A-weighted equivalent continuous steady sound level during the sample period and effectively represents an average value of the defined measurement period, T.

$L_{Aeq,16hr}$ refers to the ambient daytime period between 07:00 and 23:00hrs.

$L_{Aeq,8hr}$, refers to the ambient night-time noise level between 23:00 and 07:00hrs

L_{Aeq} parameters are averaged logarithmically

$L_{A90,T}$ is the A-weighted sound level that is exceeded for 90% of the sample period; generally used to quantify background noise. The T is the sample period the parameter is measured over.

The 16hr and 8hr L_{A90} values are averaged over the same time periods for the L_{Aeq} discussed above. L_{A90} parameters are averaged arithmetically

L_{AFmax} is the instantaneous maximum sound level measured during the sample period using the 'F' time weighting.

The "A" suffix for the noise parameters denotes the fact that the sound levels have been "A-weighted" in order to account for the non-linear nature of human hearing. All sound levels in this report are expressed in terms of decibels (dB) relative to $2x10^{-5}$ Pa

The L_{den} parameter is also discussed within the report. This parameter is derived from the L_{Aeq} data over each 24 hour period as is defined as follows:

L_{den} is the 24hour noise rating level determined by the averaging of the L_{day} with the $L_{evening}$ (plus a 5dB penalty) and the L_{night} (plus a 10dB penalty). L_{den} is calculated using the following formula.

$$L_{den} = 10log\left(\frac{1}{24}\right)\left(12 * \left(10^{\frac{Lday}{10}}\right) + 4 * \left(10^{\frac{Levening+5}{10}}\right) + 8 * \left(10^{\frac{Lnight+10}{10}}\right)\right)$$

Where:

L_{day} is the A-weighted long-term average sound level as defined in ISO 1996-2, determined over all the day periods of a year. The 12 hour daytime period is between 07:00 to 19:00hrs.

$L_{evening}$ is the A-weighted long-term average sound level as defined in ISO 1996-2, determined over all the evening periods of a year. The 4 hour evening period is between 19:00 to 23:00hrs.

L_{night} is the A-weighted long-term average sound level as defined in ISO 1996-2, determined over all the night periods of a year. The 8 hour night-time period is between 23:00 to 07:00hrs.

2.4 Survey Results

The monitoring results are summarised in Table 2 for the parameters discussed in Section 2.3.

Survey date	Daytime				Evening	Night-time			L_{den}
	$L_{Aeq,16hr}$	L_{day}	$L_{A90,16hr}$	L_{AFMAX}	$L_{evening}$	L_{night}	$L_{A90,8hr}$	L_{AFMAX}	
19/07/2024	51	51	43	53	50	44	35	48	53
20/07/2024	49	49	42	59	50	44	38	48	53
21/07/2024	48	48	40	52	47	48	40	50	55
22/07/2024	49	49	41	54	50	45	37	50	53
23/07/2024	50	51	41	53	49	44	34	49	53
24/07/2024	51	52	43	58	50	44	35	50	53
25/07/2024	51	53	44	59	50	46	40	51	54
26/07/2024	51	51	43	55	51	44	36	48	53
27/07/2024	49	49	40	55	49	44	36	47	52
28/07/2024	48	47	39	50	48	43	35	49	51
29/07/2024 Note 1	53	55	42	66	50	44	35	50	55
Average Note 1	**50**	**50**	**42**	**53**	**49**	**45**	**37**	49	**53**

Table 2 Daily Noise Levels at monitoring Location

Note 1: The average data for the full data set excludes monitored data on 29 July due to influence from children playing the back garden.

Measured ambient daytime noise levels ranged between 48 and 51 dB $L_{Aeq,16hr}$ over the course of the monitoring period when the garden was not in use and the property was largely unoccupied. The average ambient noise level during the survey period excluding the 29 and 30 July was 50 dB $L_{Aeq,16hr}$.

Measured background daytime noise levels ranged between 39 and 44 dB $L_{A90,16hr}$ over the course of the monitoring period when the garden was not in use. The average background noise level during the survey period excluding the 29 and 30 July was 42 dB $L_{Aeq,16hr}$.

Measured ambient night-time noise levels ranged between 43 and 48 dB $L_{Aeq,8hr}$ over the course of the monitoring period. The average ambient night-time noise level during the survey excluding the 29 and 30 July was 45 dB $L_{Aeq,8hr}$.

Measured background night-time noise levels range between 34 and 40 dB $L_{A90,8hr}$ over the course of the monitoring period. The average background night-time noise level recorded of the survey period between 19 and 28 July was 37 dB $L_{A90,8hr}$.

The survey data is graphed in Figure 3 overleaf. The full raw set of data is appended to this report in an excel file.

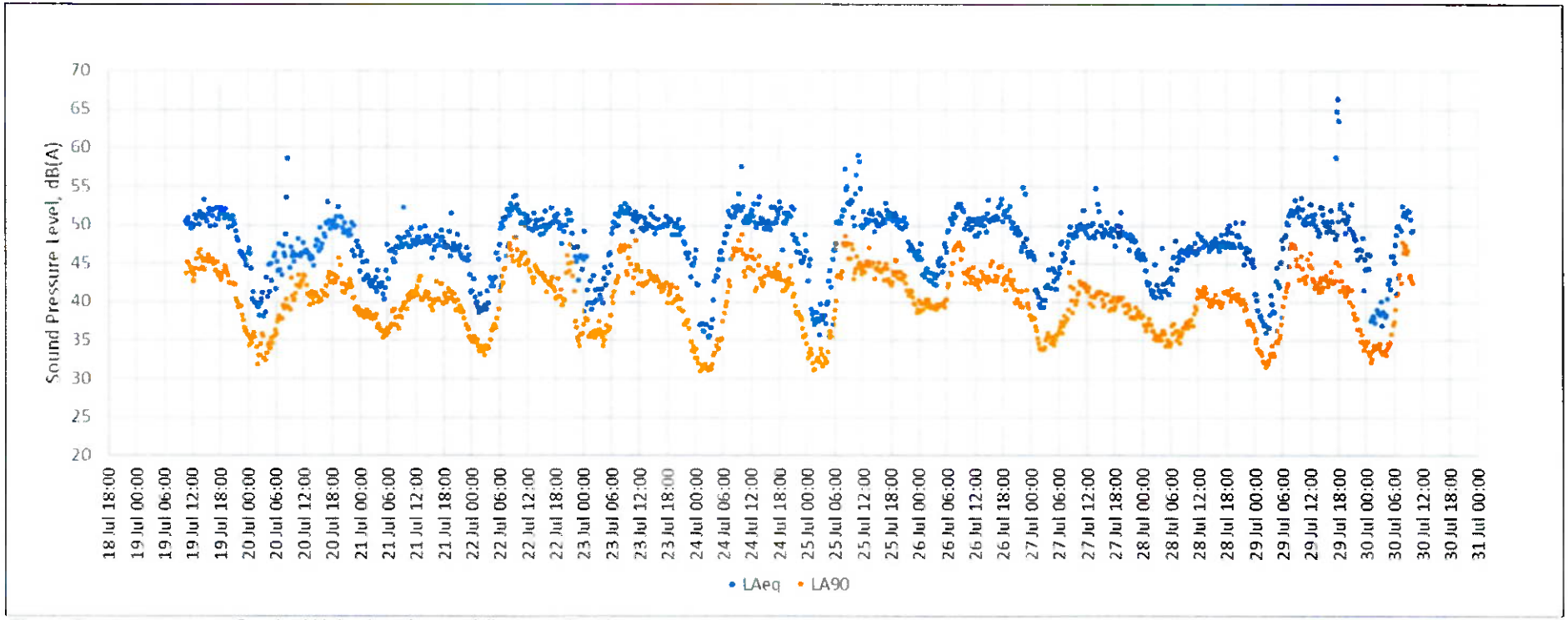

Figure 3 Graphed Noise Levels over full survey duration

2.5 Review of Noise Data

2.5.1 Ambient Noise Levels

The results of the noise monitoring during July 2024 are compared against those presented in the EIAR for the closest monitoring location, UT52, which was measured within the development site to the rear of Darthmouth Road West in the absence of construction works.

The results of the ambient noise monitoring within rear garden of 5 Darthmouth Square has determined the following:

- Average daytime ambient (L_{Aeq}) noise levels are 7 dB lower than those measured at UN52 during 2018;
- Average night-time ambient noise levels are 5 dB lower than those measured at UN52 during 2018;
- Average L_{den} values are 6 dB lower than those measured at UN52 during 2018.

In Chapter 13 of the EIAR, the ambient noise levels are used to assign a significance noise threshold for construction noise, Category A, B, or C in line with BS 5228 2009 +A1 2014: *Code of Practice for noise and vibration control of construction and open sites - Part 1: Noise*. The category is defined based on the existing ambient noise levels, rounded to the nearest 5dB. Table 13.12 of the EIAR is reproduced below which sets out the ABC approach from BS 5228-1.

Assessment Category & Threshold Value Period (L_{Aeq})	Construction Noise Threshold (CNT) (dB)		
	Category A [A]	Category B [B]	Category C [C]
Daytime (07:00 – 19:00hrs) and Saturdays (07:00 – 13:00hrs)	65	70	75
Evenings & Weekends (19:00 – 23:00hrs weekdays) (13:00 - 23:00hrs Saturdays) (07:00 – 23:00hrs Sundays)	55	60	65
Night-time (23:00 to 07:00hrs)	45	50	55
Notes	Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are less than these values	Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are the same as category A values.	Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are higher than category A values.
			If the ambient noise level exceeds the Category C threshold values given in the table (i.e. the ambient

Assessment Category & Threshold Value Period (L_{Aeq})	Construction Noise Threshold (CNT) (dB)		
	Category A [A]	Category B [B]	Category C [C]
			noise level is higher than the above values), then a potential significant effect is indicated if the total $L_{Aeq,T}$ noise level for the period increases by more than 3 dB due to site noise

Table 3 Construction Noise Thresholds from BS 5228-1 from Table 13.12 of EIAR

As shown in Table 3, if ambient noise levels are below 65 dB $L_{Aeq,12hr,}$ Category A is assigned. The ambient noise levels measured at UT52 were used to assign the relevant significance threshold for construction noise for properties along Darthmouth Square West. On the basis of the baseline noise survey results at UT52, therefore, the lowest construction noise threshold (CNT), Category A, was assigned in the EIAR.

The updated baseline noise levels at 5 Darthmouth square west confirms Category A remains the appropriate significance category for these properties for daytime and Saturday morning periods.

2.5.1 Background Noise Levels

The results of the background noise monitoring within rear garden of 5 Darthmouth Square has determined the following:

- Average daytime background (L_{A90}) noise levels are 2 dB lower than those measured at UN52 during 2018;
- Average night-time background noise levels are 2 dB lower than those measured at UN52 during 2018

In accordance with Chapter 13 of the EIAR and the subsequent technical note issued during the Metrolink oral hearing entitled *Noise control from Fixed Instalaltions for Metrolink* (04 March 2024), BS 4142:2014 +A1 2019 *Method for Rating and Assessing Industrial and Commercial Sound*, is the proposed standard for the assessment criterion for noise from fixed installations associated with Metrolink.

As the background noise level is a critical element of the assessment, both Chapter 13 (Section 13.5.3.3) and the and the fixed installations noise technical note confirm the background noise level is to be established prior to the design of the operational plant items through updated baseline noise surveys to ensure the most up to date and representative value is used. There is no change to the assessment approach therefore within the EIAR for operational noise from fixed installations at this location based on the updated survey results.

APPENDIX A
CALIBRATION CERTIFICATES

NL-52: 00976162

CERTIFICATE OF CALIBRATION

0653

Date of Issue: 02 September 2022 **Certificate Number: UCRT22/2053**

Calibrated at & Certificate issued by:
ANV Measurement Systems
Beaufort Court
17 Roebuck Way
Milton Keynes MK5 8HL
Telephone 01908 642846 Fax 01908 642814
E-Mail: info@noise-and-vibration.co.uk
Web: www.noise-and-vibration.co.uk
Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

Page 1 of 2 Pages

Approved Signatory

K. Mistry

Customer	AWN Consulting Limited The Tecpro Building IDA Business and Technology Park Clonshaugh Dublin, D17 XD90 Ireland			
Order No	2243			
Description	Sound Level Meter / Pre-amp / Microphone / Associated Calibrator			
Identification	*Manufacturer*	*Instrument*	*Type*	*Serial No. / Version*
	Rion	Sound Level Meter	NL-52	00976162
	Rion	Firmware		2 0
	Rion	Pre Amplifier	NH-25	76279
	Rion	Microphone	UC-59	12055
	Rion	Calibrator	NC-75	34313057
		Calibrator adaptor type if applicable		NC-75-022
Performance Class	1			
Test Procedure	TP 10. SLM 61672-3:2013 *Procedures from IEC 61672-3:2013 were used to perform the periodic tests.*			
Type Approved to IEC 61672-1:2013	Yes *If YES above there is public evidence that the SLM has successfully completed the applicable pattern evaluation tests of IEC 61672-2:2013*			
Date Received	01 September 2022	ANV Job No.	UKAS22/09555	
Date Calibrated	02 September 2022			

The sound level meter submitted for testing has successfully completed the periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed. As evidence was publicly available, from an independent testing organisation responsible for approving the results of pattern-evaluation tests performed in accordance with IEC 61672-2:2013, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013, the sound level meter submitted for testing conforms to the class 1 specifications of IEC 61672-1:2013.

Previous Certificate	*Dated*	*Certificate No.*	*Laboratory*
	17 July 2020	UCRT20/1661	0653

CERTIFICATE OF CALIBRATION

0653

Date of Issue: 02 September 2022 **Certificate Number: UCRT22/2053**

Calibrated at & Certificate issued by:
ANV Measurement Systems
Beaufort Court
17 Roebuck Way
Milton Keynes MK5 8HL
Telephone 01908 642846 Fax 01908 642814
E-Mail: info@noise-and-vibration.co.uk
Web: www.noise-and-vibration.co.uk
Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

Approved Signatory

K. Mistry

Customer	AWN Consulting Limited The Tecpro Building IDA Business and Technology Park Clonshaugh Dublin, D17 XD90 Ireland			
Order No.	2243			
Description	Sound Level Meter / Pre-amp / Microphone / Associated Calibrator			
Identification	*Manufacturer*	*Instrument*	*Type*	*Serial No. / Version*
	Rion	Sound Level Meter	NL-52	00976162
	Rion	Firmware		2.0
	Rion	Pre Amplifier	NH-25	76279
	Rion	Microphone	UC-59	12055
	Rion	Calibrator	NC-75	34313057
		Calibrator adaptor type if applicable		NC-75-022
Performance Class	1			
Test Procedure	TP 10. SLM 61672-3:2013 *Procedures from IEC 61672-3:2013 were used to perform the periodic tests.*			
Type Approved to IEC 61672-1:2013	Yes *If YES above there is public evidence that the SLM has successfully completed the applicable pattern evaluation tests of IEC 61672-2:2013*			
Date Received	01 September 2022	ANV Job No.	UKAS22/09555	
Date Calibrated	02 September 2022			

The sound level meter submitted for testing has successfully completed the periodic tests of IEC 61672-3:2013, for the environmental conditions under which the tests were performed. As evidence was publicly available, from an independent testing organisation responsible for approving the results of pattern-evaluation tests performed in accordance with IEC 61672-2:2013, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013, the sound level meter submitted for testing conforms to the class 1 specifications of IEC 61672-1:2013.

Previous Certificate	*Dated*	*Certificate No.*	*Laboratory*
	17 July 2020	UCRT20/1661	0653

4231: S/N: 2022651

CERTIFICATE OF CALIBRATION

0653

Date of Issue: 21 March 2024

Certificate Number: UCRT24/1467

Calibrated at & Certificate issued by:
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Beaufort Court
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Approved Signatory

K. Mistry

Customer	AWN Consulting The Tecpro Building IDA Business and Technology Park Clonshaugh Dublin 17 D17 XD90, Ireland			
Order No.	2365			
Test Procedure	Procedure TP 1 Calibration of Sound Calibrators			
Description	Acoustic Calibrator			
Identification	*Manufacturer*	*Instrument*	*Model*	*Serial No.*
	Brüel & Kjær	Calibrator	4231	2022651

The calibrator has been tested as specified in Annex B of IEC 60942:2003. As public evidence was available from a testing organisation (PTB) responsible for approving the results of pattern evaluation tests, to demonstrate that the model of sound calibrator fully conformed to the requirements for pattern evaluation described in Annex A of IEC 60942:2003, the sound calibrator tested is considered to conform to all the class 1 requirements of IEC 60942:2003.

ANV Job No.	UKAS24/03253	
Date Received	20 March 2024	
Date Calibrated	21 March 2024	
Previous Certificate	*Dated*	01 February 2022
	Certificate No.	UCRT22/1135
	Laboratory	0653

CERTIFICATE OF CALIBRATION

0653

Date of Issue: 21 March 2024 **Certificate Number: UCRT24/1467**

Calibrated at & Certificate issued by:
ANV Measurement Systems
Beaufort Court
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E-Mail: info@noise-and-vibration.co.uk
Web: www.noise-and-vibration.co.uk
Acoustics Noise and Vibration Ltd trading as ANV Measurement Systems

Approved Signatory

K. Mistry

Customer	AWN Consulting The Tecpro Building IDA Business and Technology Park Clonshaugh Dublin 17 D17 XD90, Ireland			
Order No.	2365			
Test Procedure	Procedure TP 1 Calibration of Sound Calibrators			
Description	Acoustic Calibrator			
Identification	*Manufacturer*	*Instrument*	*Model*	*Serial No.*
	Brüel & Kjær	Calibrator	4231	2022651

The calibrator has been tested as specified in Annex B of IEC 60942:2003. As public evidence was available from a testing organisation (PTB) responsible for approving the results of pattern evaluation tests, to demonstrate that the model of sound calibrator fully conformed to the requirements for pattern evaluation described in Annex A of IEC 60942:2003, the sound calibrator tested is considered to conform to all the class 1 requirements of IEC 60942:2003.

ANV Job No.	UKAS24/03253	
Date Received	20 March 2024	
Date Calibrated	21 March 2024	
Previous Certificate	*Dated*	01 February 2022
	Certificate No.	UCRT22/1135
	Laboratory	0653