

2nd February 2023

Revision 0

Nu Era Club, Brooklyn: Noise Impact Assessment.

1. Introduction

This report was commissioned by Mr Daniel K. Gagakuma, the owner of Nu Era Club, cell: +27 72 793 1492, email: dkjgacus@gmail.com.

This report lists measurements conducted at Nu Era Club, Brooklyn to establish if the venue complies with the Western Cape Noise Control Regulations, 2013.

Measurements conducted on the 25th January 2023 established the following:

- a. The sound system used comprises 8 x 250W powered loudspeakers and 1 x 700W subwoofer.
- b. The sound pressure level of amplified music within the venue does not exceed a maximum sound pressure level of 96.4 dBA.
- c. The nearest “noise sensitive activity” is Duncan View Apartments located to the rear of the venue.

- d. The overall residual level was measured outside the venue premises to be 70.1 dBA Leq_{10min} .
- e. An assessment of the ambient noise level measured at the plot boundary of the venue facing the nearest “noise sensitive activity” determined that the venue does not demonstrate the presence of tonal character ($C_t=0$).

According to the Western Cape Noise Control Regulations, 2013, Nu Era Club does not cause a “disturbing noise” insofar as the noise from the venue is inaudible at the plot boundary and does not exceed the residual noise level.

In order to ensure compliance with the requirements of the Western Cape Noise Control Regulations, 2013, the lobby venue doors at Nu Era Club, Brooklyn must be operated and manned by members of staff to ensure that the doors are kept closed and are never open at the same time.

A copy of this report should be submitted by the owner to the relevant City of Cape Town Environmental Health Office.

2. Background and Present Situation

- 2.1 Nu Era Club is located at number 169 Koeberg Road, Brooklyn.
- 2.2 The venue operating hours are 14h00 to 02h00 daily.
- 2.3 According to the owner of Nu Era Club, the venue has received 2 complaints regarding amplified noise during their operating hours.
- 2.4 Mackenzie Hoy Consulting Engineers were commissioned by Mr Daniel K. Gagakuma, the owner of Nu Era Club, to conduct a Noise Impact Assessment of the venue and to provide a report with recommendations.
- 2.5 Mackenzie Hoy Consulting Engineers visited Nu Era Club on the 25th of January 2023 to inspect the venue and conduct measurements.
- 2.6 This report details the measurements conducted at Nu Era Club to establish if the venue complies with the Western Cape Noise Control Regulations, 2013.

3. Measurements

3.1 The following instruments were used to conduct measurements at Nu Era Club, Brooklyn:

- a. Norsonic Sound Calibrator, Serial No. 33748, Calibration by M and N Acoustic Services cc in October 2022, SANAS Reg No 148 1302, Certificate Number 2022-AS-1445.
- b. Norsonic Nor140 Type 1/Class 1 Precision Sound Analyser, Serial No. 1405477, 15458. Calibrated by M and N Acoustic Services cc in August 2022, SANAS Reg No 148 1302, Certificate Number 2022-AS-1102.

Calibration certificates of the equipment used are attached in Appendix A of this report.

Note: Calibration of the above sound level meters is valid for 2 years from the date of calibration.

3.2 Refer to Figure 1 on the following page for an overview of the measurement locations used at Nu Era Club on the 25th of January 2023.

3.3 Refer to Table 1 and Table 2 for a summary of the measurement results.

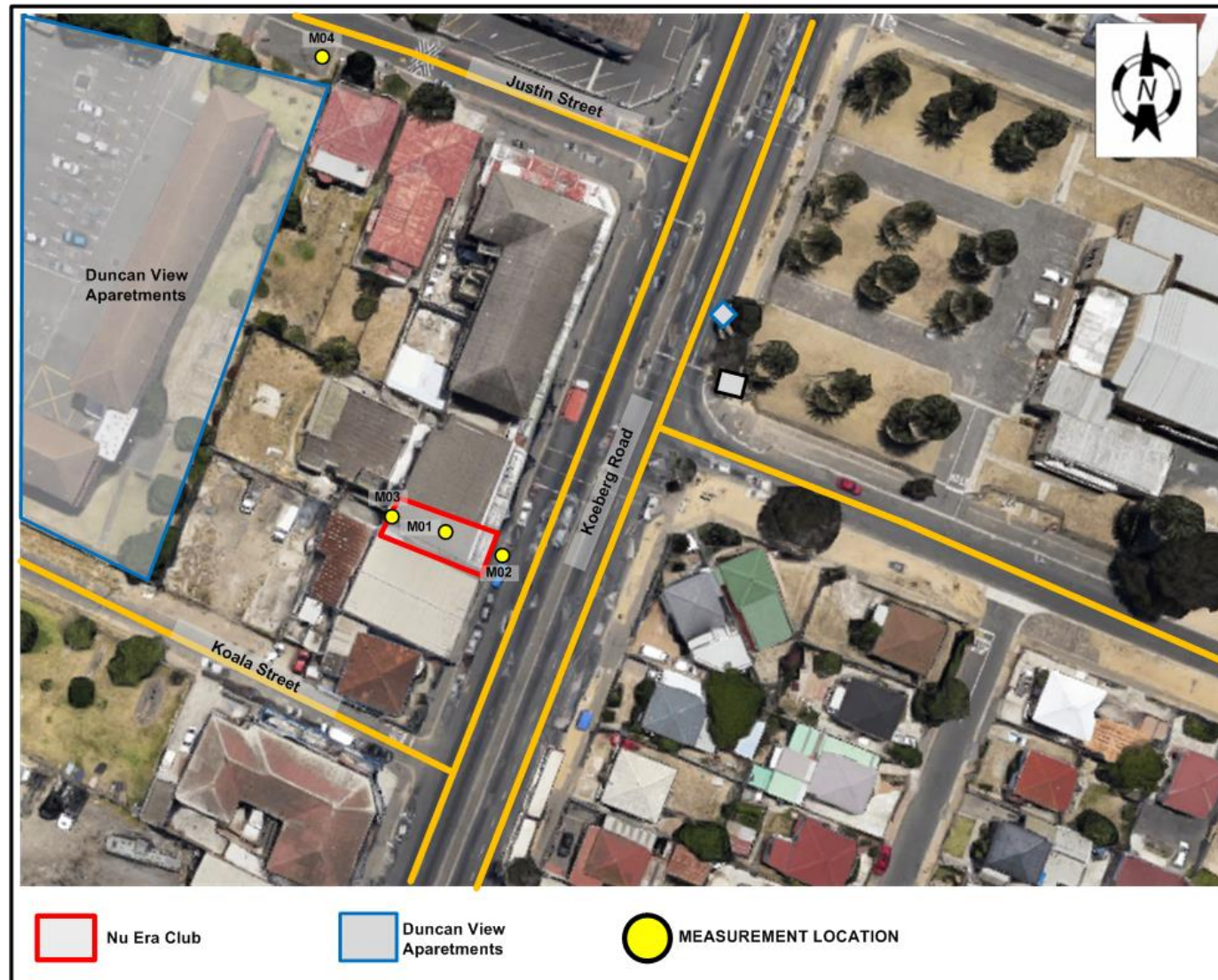


Figure 1: Measurement locations used at Nu Era Club on the 10th December 2019.

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Table 1: Summary of measurements conducted at Nu Era Club, Brooklyn on the 25th of January 2023.

Measurement location	Description	Time interval/Sound Pressure Level (L_{Aeq}) measured	Comments
M01	Nu Era Club, Main Dance Floor	96.4 dBA	<ul style="list-style-type: none">Amplified music played inside venue
M02	Main Entrance	70.1 dBA	<ul style="list-style-type: none">Music inaudible
M03	Plot Boundary	56.2 dBA	<ul style="list-style-type: none">Music inaudible
M04	Duncan View Apartments Justin Street	54.2 dBA	<ul style="list-style-type: none">Music inaudible

4. Discussion

4.1 The Western Cape Noise Control Regulations, 2013 use the following definitions and descriptions:

“disturbing noise” means a noise, excluding the unamplified human voice, which;

- a) exceeds the rating level by 7 dBA
- b) exceeds the residual noise level where the residual noise level is higher than the rating level; or
- c) exceeds the residual noise level by 3 dBA where the residual noise level is lower than the rating level.

“Rating level” means the applicable outdoor equivalent continuous rating level indicated in Table 2 of SANS 10103:2008 *“The measurement and rating of environmental noise with respect to annoyance and to speech communication”*.

“Residual noise” means the all-encompassing sound in a given situation at a given time, measured as the reading on an integrated impulse sound level meter for a total period of at least 10 minutes, excluding noise alleged to be causing a noise nuisance or disturbing noise.

“Noise sensitive activity” means any activity that could be negatively impacted by noise, including residential, healthcare, educational or religious activities;

“Property projection plane” means a vertical or horizontal plane, whichever is applicable, on a boundary line of premises defining a boundary of the premises in space.

- 4.2 Nu Era Club and its immediate surroundings are considered urban districts with one or more of the following: workshops; business premises; and main roads.
- 4.3 With reference to SANS 10103:2008 “*The measurement and rating of environmental noise with respect to annoyance and to speech communication*”, the following outdoor rating levels apply:
- a. Daytime rating level (06h00 – 22h00) : 60.0 dBA
 - b. Night-time rating level (22h00 – 06h00) : 50.0 dBA
- 4.4 Measurements conducted at Nu Era Club on the 25th of January 2023 established the following:
- a. The sound system used comprises 8 x 250W powered loudspeakers and 1 x 700W subwoofer.
 - b. The sound pressure level of amplified music within the venue does not exceed a maximum sound pressure level of 96.4 dBA.
 - c. The nearest “noise sensitive activity” is Duncan View Apartments located to the rear of the venue.
 - d. The residual noise level measured at Duncan View Apartments in Justin Street is 56.2 dBA Leq_{10min} .

- 4.5 The Western Cape Noise Control Regulations, 2013 refer to SANS10103:2008 as relevant standards used for the assessment of noise. According to SANS10103:2008, if audible tones such as whines, whistles, hums, and music, are present as determined by the procedure given in Annex D (e.g. if the noise contains discernible pitch), then a correction (C_t) of +5 dBA may be used for tonal character. An assessment of the ambient noise level measured at the plot boundary of Nu Era Club facing the “noise sensitive activity” determined that the noise generated does not demonstrate the presence of tonal character ($C_t = 0$).
- 4.6 The applicable definition of a “disturbing noise” for Nu Era Club therefore implies a noise that exceeds the rating level by 7 dBA. The maximum allowable noise limits at the plot boundary of the venue are therefore as follows:
- a. Daytime limit (06h00 – 22h00) : 67.0 dBA (60 dBA + 7 dBA)
 - b. Night-time limit (22h00 – 06h00): 57.0 dBA (50 dBA + 7 dBA)
- 4.7 According to the Western Cape Noise Control Regulations, 2013, Nu Era Club does not cause a “disturbing noise” insofar as the noise from the venue is inaudible at the plot boundary and does not exceed the residual noise level.

5 Recommendations

- 5.1 The lobby venue doors must be operated and manned by members of staff to ensure that the venue doors are kept closed and are never open at the same time.
- 5.2 A copy of this report should be submitted by the owner to the relevant City of Cape Town Environmental Health Office.



T.E. Mackenzie Hoy Pr. Eng BSc. (Elec)
Registered professional engineer number 840428
for: Mackenzie Hoy Consulting Engineers.

Appendix A: Calibration Certificates




CERTIFICATE OF CALIBRATION

CERTIFICATE NUMBER	2022-AS-1102
ORGANISATION	MACKENZIE HOY CONSULTING ENGINEERS
ORGANISATION ADDRESS	5 CONISTON WAY, PINELANDS, CAPE TOWN, 7405
CALIBRATION OF	INTEGRATING SOUND LEVEL METER with built-in 1/3-OCTAVE/OCTAVE FILTER and 1/2" MICROPHONE
MANUFACTURERS	NORSONIC
MODEL NUMBERS	NOR 140, 1209 and 1225
SERIAL NUMBERS	1405477, 13184 and 149467
DATE OF CALIBRATION	22 – 23 AUGUST 2022
RECOMMENDED DUE DATE	-----
PAGE NUMBER	PAGE 1 OF 6

This certificate is issued in accordance with the conditions of approval granted by the South African National Accreditation System (SANAS). This Certificate may not be reproduced without the written approval of SANAS and M and N Acoustic Services.

The measurement results recorded in this certificate were correct at the time of calibration. The subsequent accuracy will depend on factors such as care, handling, frequency of use and the number of different users. It is recommended that re-calibration should be performed at an interval, which will ensure that the instrument remains within the desired limits and/or manufacturer's specifications.

The South African National Accreditation System (SANAS) is member of the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). This arrangement allows for mutual recognition of technical test and calibration data by member accreditation bodies worldwide. For more information on the arrangement please consult www.ilac.org

Calibrated by Calibration Technician:	 N.J. BLIGNAUT	Clause 3.1, 3.2 & 3.4
Calibrated/Supervised by Calibration Technician:	 W.S. SIBANYONI	Clause 3.1 – 3.4
Authorized/Checked by SANAS Technical Signatory:	 M. NAUDÉ	Date of Issue: 24 AUGUST 2022

Director: Marianka Naudé

Figure 2: Calibration certificate for Norsonic Nor140 Sound Level Meter

CERTIFICATE OF CALIBRATION


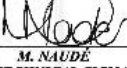
CERTIFICATE NUMBER	2022-AS-1445
ORGANISATION	MACKENZIE HOY CONSULTING ENGINEERS
ORGANISATION ADDRESS	5 CONISTON WAY, PINELANDS, CAPE TOWN, 7405
CALIBRATION OF	SOUND CALIBRATOR c/w 1443 ½" ADAPTER
MANUFACTURER	NORSONIC
MODEL NUMBER	1251
SERIAL NUMBER	33748
DATE OF CALIBRATION	21 OCTOBER 2022
RECOMMENDED DUE DATE	OCTOBER 2023
PAGE NUMBER	PAGE 1 OF 3

This certificate is issued in accordance with the conditions of approval granted by the South African National Accreditation System (SANAS). This Certificate may not be reproduced without the written approval of SANAS and M and N Acoustic Services.

Calibrations performed by this laboratory are in terms of standards, the accuracies of which are traceable to national measuring standards as maintained by NMISA

The measurement results recorded in this certificate were correct at the time of calibration. The subsequent accuracy will depend on factors such as care, handling, frequency of use and the number of different users. It is recommended that re-calibration should be performed at an interval, which will ensure that the instrument remains within the desired limits and/or manufacturer's specifications.

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Calibrated by:  W.S. SIBANYONI (CALIBRATION TECHNICIAN)	Authorized/Checked by:  M. NAUDÉ (SANAS TECHNICAL SIGNATORY)	Date of Issue: 21 OCTOBER 2022
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Director: Marianka Naudé

Figure 3: Calibration certificate for Norsonic Nor1251 Sound Calibrator