



Dun Laoghaire/Rathdown County Council

Marlay Park Concerts

From

08.07.16 – 09.07.16

Title: Noise Measurements Taken at Noise Sensitive locations surrounding Marlay Park while the Concerts are being held at the park.

Reading Taken: At the noise sensitive locations (NSL's) within the vicinity of Marlay Park.

Equipment Used: Hand Held Analyser, Bruel & Kjaer 2250 Light, Sound Level Meter

Prepared by: Noise Unit, DLRCC

Summary

The Noise Unit at Dun Laoghaire/Rathdown Co. Council has been requested to perform a noise assessment investigation for the Concerts being held at Marlay Park 2016.

This report details the equipment and measurement methods employed and presents an acoustic analysis of all data collected.

Objectives

The technical assessments were carried out:

1. To determine the ambient noise environment and background noise levels at the noise sensitive location(s) (NSL's) where monitoring has been carried out.
2. To relate the music noise level from the Marlay Parks Concerts to the noise conditions set down in the planning application and show a reasonable cause for annoyance or otherwise.
3. To assess if the complaints logged by local residents are justified.

Introduction

Marlay Park is located in Dun-laoghaire/Rathdown Co. Council and has been used for two concerts on a single open air stage on Friday, 8th July and Saturday, 9th July 2016.

The condition relating to the event states that *“The music noise level should not exceed 72dB(A) LAeq, over a fifteen-minute period, at one meter from the façade of any noise sensitive premises for events being held”*

Description of the Noise Source

There is a stone wall approximately 1.5 – 2 metres high running along the park boundary between the nearest noise receptor location and the noise source. There are some tall trees and wooded areas within the park.

The primary noise nuisance is emitting from the live and recorded music featured on a single stage, with live music between approximately 17:30 and 23:00.

Description of the Noise Receiver

The closest noise sensitive area is situated on the Grange Road to the north and east of the park. Residents living in the area include young and old families.

Equipment and Measurement Set Up

The recorder used during the noise assessment was with a Hand Held Analyser, Bruel & Kjaer 2250 Light, Sound Level Meter.

Noise Equipment Specifications

Type: Class 1, 2250 Light, Hand-held analyser, Sound Level Meter (SLM)

Type: 4231 Class 1 Acoustic Calibrator

Manufacturer: Bruel & Kjaer

Weighted Setting: A-Weighting

Meter Response Time: Fast

Serial Number: 2638896

Measurement Set-Up

The sound level meter was calibrated before site visit and recordings were carried out.

Location: Outdoors in the noise sensitive location.

Orientation: Pointed towards the noise source.

Acoustic Consideration

Meteorological Conditions

Meteorological conditions can have a substantial influence on the propagation of sound and may provide important information for assessing noise compliance and a noise complaint. Wind speed and wind direction have the potential to affect the noise measurements. An average wind speed of less than 5m/s is the preferred limit when noise measurements are being taken.

The prevailing weather conditions at the time of measurement has been noted and recorded in the report. These occurrences may influence the final noise reading.

External Influences and limitations

Precautions were put in place to minimise outside interference. These include covering microphone with a wind shield to minimise outside interference and pausing the SLM if deemed necessary.

The Grange Road runs to the north and east of the Park. This appears to be a busy road to the north of the park with fewer vehicles using the eastern part of the road.

The M50 motorway runs approximately east to west to the south of the Park.

Road traffic noise and crowd noise were noted during the course of each monitoring session. These occurrences may influence the final noise reading.

Methodology

Noise levels were measured by a competent person for environmental noise monitoring, in accordance with EPA Environmental Noise Guidance Document and International Standard ISO 1996: Acoustics Description & Measurement of Environmental Noise.

Monitoring Position & Measurement Set Up

Parameters Used on the SLM: Ambient Noise Levels, LAeq, t and Background Noise, L90

Location of Sound Level Meter: Free-Field

The recorder was placed at least 3.5m from any wall or large reflecting surface.

SLM: 1.2 -1.5metres in height

Windshield Used: Yes

Orientation: Pointing the microphone at the noise source.

Date: 08.07.16

Noise Sensitive Location: Highfield Court

Calibration Deviation: -0.4

Sound Level Meter Reference No: 160708 063

Start Time: 19:59:26

Finish Time: 20:14:39

LAeq, 15 mins 65.6 dB

L90, 15 mins 59.3dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: -0.1

Sound Level Meter Reference No: 160708 064

Start Time: 20:19:20

Finish Time: 20:34:21

LAeq, 15 mins 71 dB

L90, 15 mins 62.6 dB

Noise Sensitive Location: Heather Drive

Calibration Deviation: +.03

Sound Level Meter Reference No: 160708 065

Start Time: 21:17:26

Finish Time: 21:32:27

LAeq, 15 mins 71.4 dB

L90, 15 mins 61.0dB

Noise Sensitive Location: Pine Valley Avenue

Calibration Deviation: +.01

Sound Level Meter Reference No: 160708 066

Start Time: 22:02:40

Finish Time: 22:12:41

LAeq, 15 mins 67.2 dB

L90, 15 mins 58.4dB

Date: 09.07.16

Noise Sensitive Location: Heather Drive

Calibration Deviation: +0.4

Sound Level Meter Reference No: 160708 067

Start Time: 19:41:43

Finish Time: 19:56:44

LAeq, 15 mins 66.2 dB

L90, 15 mins 59.1dB

Noise Sensitive Location: Grange Wood

Calibration Deviation: +0.3

Sound Level Meter Reference No: 160708 068

Start Time: 20:01:49

Finish Time: 20:19:20

LAeq, 15 mins 69.9 dB

L90, 15 mins 72.1 dB

Noise Sensitive Location: Highfield Court

Calibration Deviation: +0.00

Sound Level Meter Reference No: 160708 069

Start Time: 20:36:39

Finish Time: 20:43:18

LAeq, 6.23mins 69.5 dB

L90, 15 mins 59dB

Noise Sensitive Location: Pine Valley Avenue

Calibration Deviation: +0.3

Sound Level Meter Reference No: 160708 071

Start Time: 21:14:15

Finish Time: 21:29:16

LAeq, 15 mins 69.3 dB

L90, 15 mins 59.5dB

Noise Sensitive Location: Highfield Court

Calibration Deviation: +0.1

Sound Level Meter Reference No: 160708 072

Start Time: 21:33:04

Finish Time: 21:48:05

LAeq, 15 mins 70.2 dB

L90, 15 mins 64.2dB

Meteorological Conditions:

Dry and cloudy

Approximate Temperature: 18 to 20 degrees Celsius

Approximate Wind speed: below 1m/s

Discussion of Acoustic Analysis

Noise monitoring was carried out by the Noise Unit to determine compliance with the following licensed condition:

“The music noise level should not exceed 72dB(A) LAeq, over a fifteen-minute period, at one meter from the façade of any noise sensitive premises for events being held”.

There was no exceedance of 72dB(A) LAeq, over a fifteen-minute period for any of the monitoring sessions carried out.

Conclusion of Acoustic Analysis

Having given careful consideration to the monitoring readings, the Noise Unit for Dun-Laoghaire/Rathdown Co. Council have concluded that the noise emitted from the Concert complied with the conditions set down in the planning application.