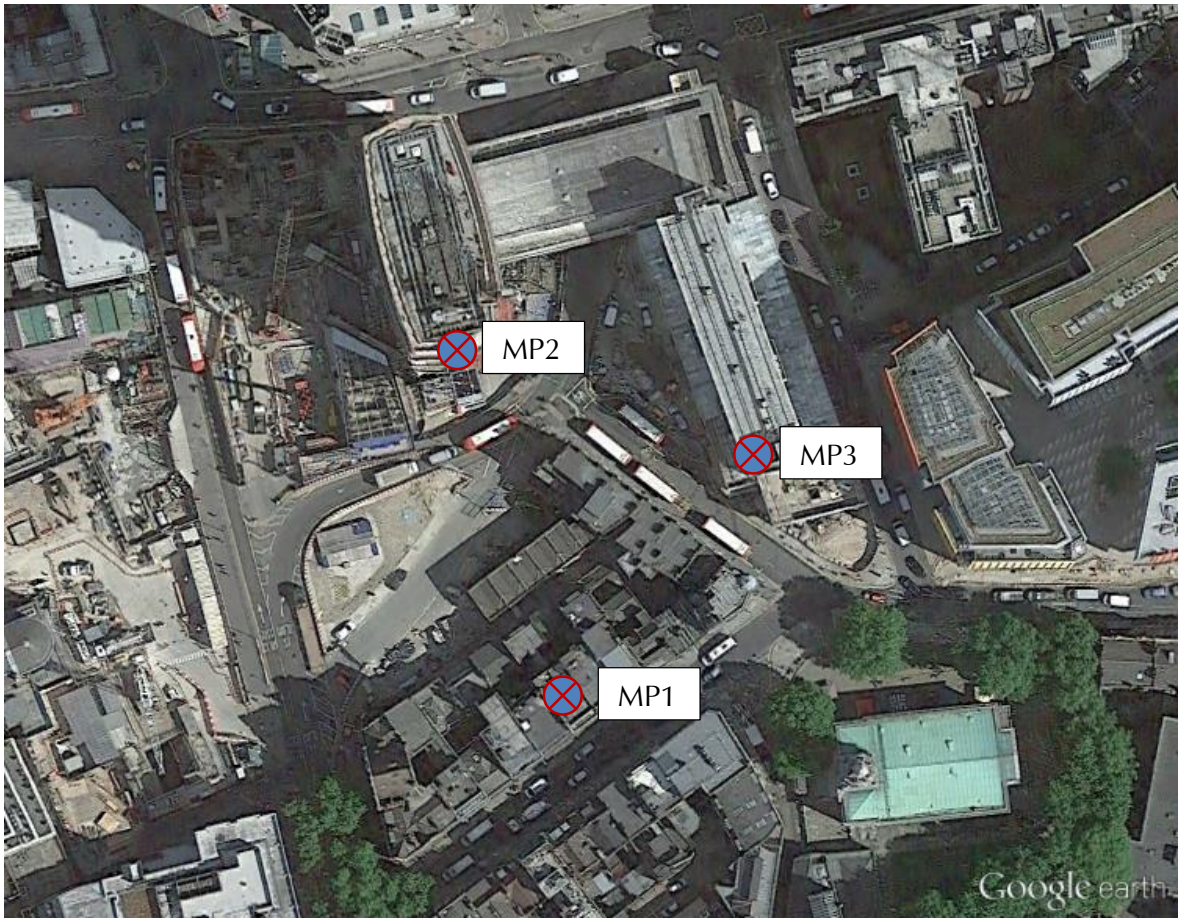
Memorandum

Project: **St Giles Circus**
Subject: **Noise Survey Overview**
Prepared: **Richard Masey**
Date: **11th October 2016**
Reference: **16/0210/M2** **Revision:** **0** **Approved:** **PH**

1 Survey Summary

1.1 This memorandum provides and overview of a noise survey conducted by Cole Jarman at St Giles Circus between the 6th and 9th June 2016. Unattended measurements were undertaken at three positions on and around the proposed development site as show in the image below:



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Noise Survey Overview

1.2 The positions shown above are described as follows:

- MP1 - Unattended free-field measurement position located on the roof of 24 Denmark Street, set back from the roof edge and at 1.5 metres above local roof level. Representative of noise levels to the rear of the property.
- MP2 - Unattended free-field measurement position located on the southern façade of Centre Point Tower at 8th floor level.
- MP3 - Unattended free-field measurement position located on the south west corner of the roof of Centre Point House at 1.5 metres above local roof level.

1.1.1 Measurements were made in the L_{Aeq}, L_{Amax}, L_{A10} and L_{A90} indices, however only L_{Aeq}, and L_{A90} are presented within this memo.

1.1.2 Noise Measurements were performed using the equipment listed in the table below:

Item	Manufacturer	Type
Sound Level Analyser	Norsonic	140
Acoustic Calibrator	Norsonic	1251
Weatherproof windshield	Norsonic	1212
Sound Level Analyser	Rion	NL-52 x 2
Acoustic Calibrator	Rion	NC-74 x 2
Weatherproof windshield	Rion	WS-15 x 2

T1 Equipment used during unattended noise survey.

1.1.3 The microphones were fitted with windshields and the sound level meters were calibrated before and after the survey to ensure a consistent and acceptable level of accuracy was maintained throughout.

1.1.4 Weather conditions when setting up and collecting the noise monitors were dry and clear with a light breeze. During the majority of the survey, there was no significant wind and no significant precipitation. Based on publically available weather data, a period of unsuitable weather conditions was during the daytime of the 7th June, which has been omitted from the presented noise levels.

1.1.5 Each measurement position was significantly controlled by construction noise activity in the daytime however this was understood to finish by 18:00 each day. Noise levels during the evening and night-time were controlled by transport noise.

1.1.6 It is important to note that noise levels measured during the daytime include significant constructions from the construction activity occurring on and near to the site at the time of the survey, at the positions monitored. It may be the case that as works on the nearby construction

sites progresses, the level, character and nature of the construction noise may change from what was measured.

1.2 Results

1.2.1 The unattended survey results can be seen in the attached time histories 16/0210/TH01, 16/0210/TH02 and 16/0210/TH03 for MP1, MP2 and MP3 Respectively.

Ambient Noise Levels

1.2.2 Representative ambient noise levels measured and positions MP1 to MP3 in terms of $L_{Aeq,T}$ dB are shown in the table below. It is noted that these noise levels represent the typical conditions over the periods measured.

Position	Measured Ambient Noise Levels, $L_{Aeq,T}$ dB		
	Daytime (0700-1900)	**Evening (1900-2300)**	**Night time (2300-0700)**
MP1	60	55	51
MP2	71	63	59
MP3	68	60	57

T2 Measured ambient noise levels

Background Noise Levels

1.2.3 Both representative and minimum evening and night time background noise levels at the measurement positions, based on of the appropriate surveyed days, are displayed in the following table, in terms of $L_{A90,T}$ dB:

Position	Measured Background Noise Levels, $L_{A90,T}$ dB					
	Daytime (0700-1900)		**Evening (1900-2300)**		**Night time (2300-0700)**	
	Minimum	Representative	Minimum	Representative	Minimum	Representative
MP1	51	56	49	50	46	47
MP2	56	62	54	55	50	51
MP3	56	59	54	56	53	53

T3 Measured background noise levels

Glossary of Acoustic Terms

L_{Aeq}:

The notional steady sound level (in dB) which over a stated period of time, would have the same A-weighted acoustic energy as the A-weighted fluctuating noise measurement over that period. Values are sometimes written using the alternative expression dB(A) L_{eq}.

L_{A90}:

If non-steady noise is to be described, it is necessary to know both its level and degree of fluctuation. The L_{An} indices are used for this purpose. The term refers to the A-weighted level (in dB) exceeded for n% of the time specified. L_{A90} is the level exceeded for 90% of the time and as such gives an indication of the lower limit of fluctuating noise. It is often used to define the background noise.

End of Section

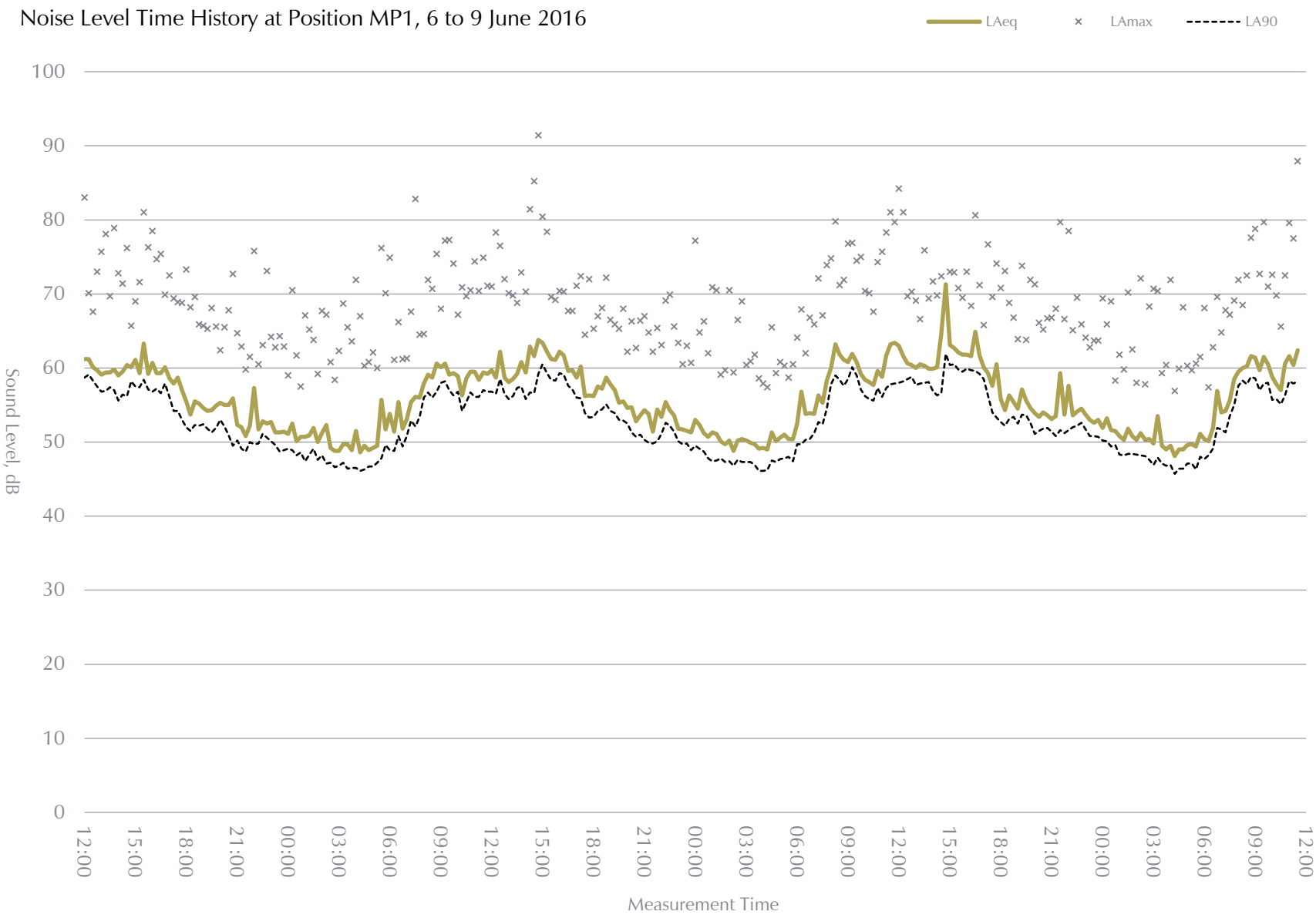

Figure 16/0210/TH01

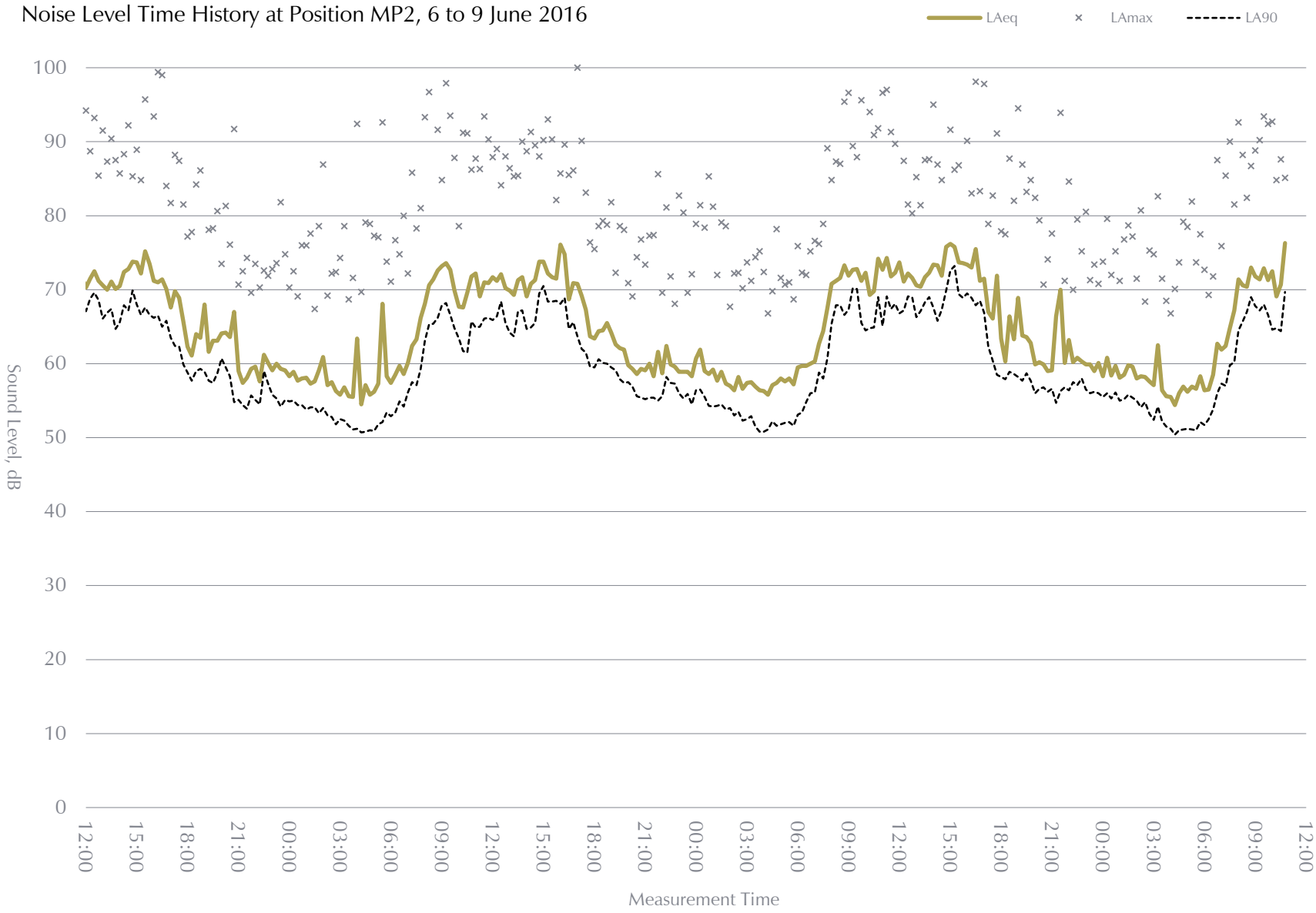

Figure 16/0210/TH02

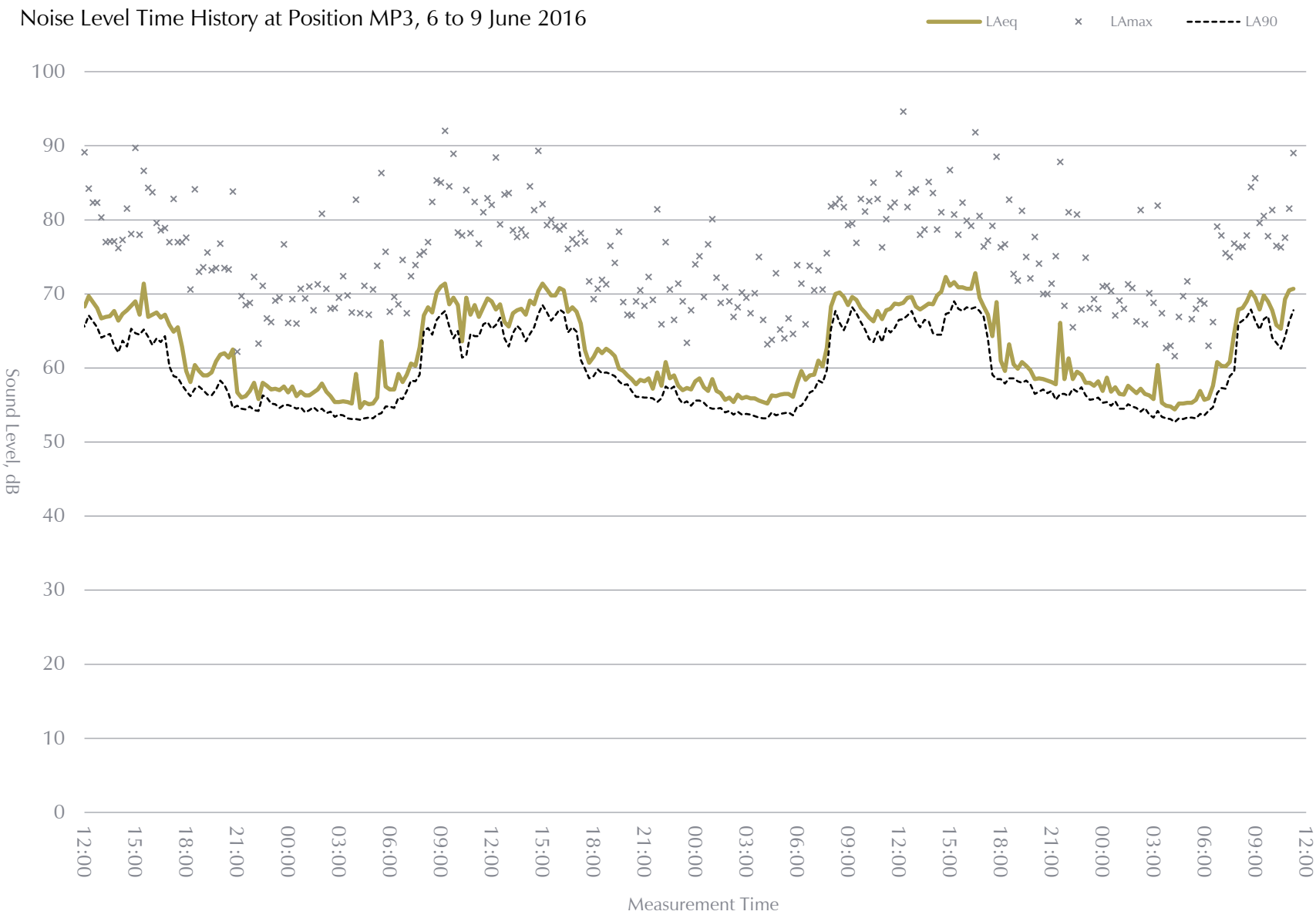

Figure 16/0210/TH03