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Club Maitland City, 14 Arthur Street, Rutherford

Noise Impact Assessment

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TABLE OF CONTENTS

1 INTRODUCTION

This report has been prepared to assess operational noise impacts from patron and music activities associated with the proposed re-development of Club Maitland City, located at 14 Arthur St, Rutherford NSW 2320.

The subject site and local context are indicated in Figures 1-3.

2 REFERENCED DOCUMENTS

This assessment was conducted using drawings provided by Dacca Architecture. Project number 2021.15, Revision C, dated 05/06/23.

2.1 PLANNING GUIDELINES

External noise emission criteria have been determined to satisfy the requirements below:

- NSW Office of Liquor, Gaming and Racing (OLGR) Liquor Licence No. LIQC300238903 acoustic requirements.
- NSW EPA Noise Policy for Industry 2017.
- Association of Australasian Acoustical Consultants *"Licensed Premises Noise Assessment Technical Guideline"* Version 2.0.

3 SITE DESCRIPTION AND THE PROPOSAL

The existing development is a club, featuring gaming rooms, bowling greens, external areas, bar, dining, lounge, office spaces and a function area.

The club is located near the town centre of Maitland, bounded by Arthur Street to the north, Melbee Street to the south, Woodberry Street to the east, and New England Highway to the west. The site is surrounded mostly by residential developments to the south and east, and one hotel, with a childcare bounding the site to the northeast. There is a library (Rutherford Library), along with commercial premises (Rutherford Mall) to the north, and a KFC outlet to the northwest.

The proposed changes to the club are the replacement of the bowling greens 2 and 3 for synthetic grass, the installation of shading on top of the bowling greens and surrounding banks, along with the renovation of the balcony, function rooms 1 and 2, the foyer, and office space.

Figure 1. Lot and zoning of project site and its surroundings (Source: ePlanning Spatial Viewer)

3.1 HOURS OF OPERATION & OCCUPANCY

The hours of operation of the premises provided to this office are presented below:

Table 1 - Trading Hours

Days of the Week	Operating Hours
Everyday (club operations)	9:00am – 3am

The occupancy of the premises provided to this office is presented below:

Table 2 – Proposed Occupancy of New Areas

Reference (Fig. 2)	Space	Occupancy
1	Foyer	25
2	Office	7
3	Function 1	104
4	Function 2	34
5	Balcony	30
6	Melbee St Bank (Green 3)	For this assessment, three main scenarios are being considered: **1. Large Bowling Events** 106 bowlers + spectators distributed across areas 5-12 (53 per green). **2. Small Bowling Events** 40 bowlers distributed across areas 5-12 (20 per green). **3. Regular Bowling** 25 bowlers distributed across areas 5-12 (only one bowl scheduled).
7	Woodberry Bank (Green 3)	
8	Middle Bank (Green 3 & 2)	
9	Woodberry Bank (Green 2)	
10	Middle Bank (Green 2 & 1)	
11	New Synthetic Green 3	
12	New Synthetic Green 2	

Note:

- **Total occupancy of the club will not change.**
- **Compliance with the "Small Bowling Events" and "Regular Bowling" is achieved granted compliance with "Large Bowling Events" is achieved.**

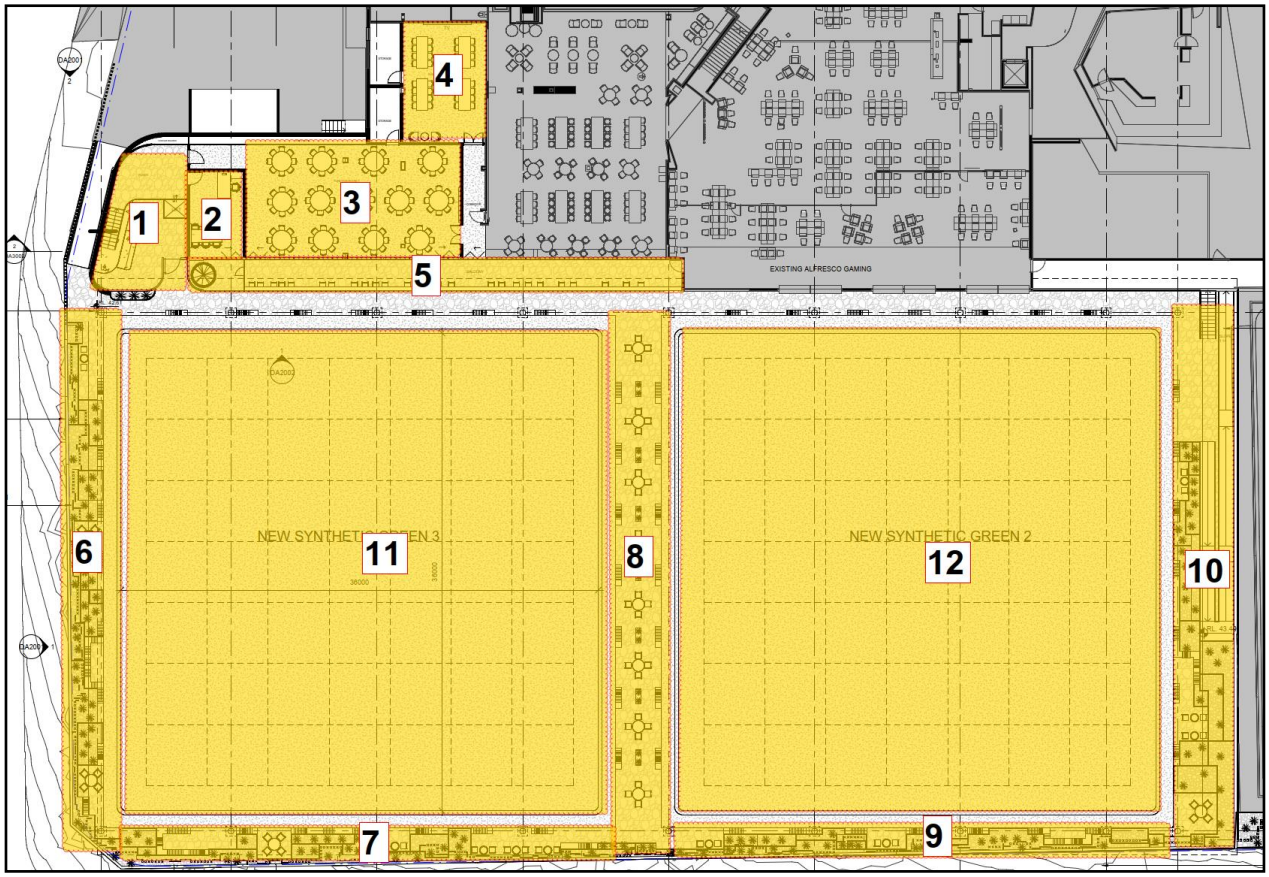


Figure 2. Occupancy reference plan

3.2 NEAREST SENSITIVE RECEIVERS

The following table lists the nearest sensitive receivers surrounding the site. An aerial photo of the site indicating nearby noise sensitive receivers and measurement locations is presented in Figure 3.

Table 3 – Sensitive Receivers

Receiver (Refer Figure 1)	Land Use	Comment
R1	Residential	The existing residential development to the west of the site on New England Highway
R2	Residential	The existing residential developments to the south of the site across Melbee Street
R3	Residential	The existing residential developments to the south of the site across Melbee Street (facing Green 3)
R4	Residential	The existing residential development to the southeast of the site across Melbee Street
R5	Residential	The existing residential developments to the east of the site across Woodberry Road (facing Green 3)
R6	Residential	The existing residential developments to the east of the site across Woodberry Road (facing Green 2)
R7	Residential	The existing residential developments to the northeast of the site across Woodberry Road
C1 (KFC/ Rutherford Dental)	Commercial	The existing commercial developments adjacent to project site to the northwest on New England Highway
C2 (Rutherford Community Centre/ Rutherford Library	Commercial	The existing commercial developments to the north of the site across the road on Arthur Street
H1 (Maitland City Motel)	Hotel	The existing hotel development adjacent to project site to the west on New England Highway
CC1 (Kookaburra Korner)	Childcare	The existing childcare development adjacent to project site to the north on Arthur Street

Figure 3 – Site Plan Showing Monitoring Locations and Surrounding Land Uses/Receivers

- Unattended Noise Monitoring Location	- Residential
- Attended Noise Monitoring Location	- Hotel
	- Child care
	- Commercial
	- Project Site

4 AMBIENT NOISE ENVIRONMENT

The acoustic environment is categorised by low to moderate background noise levels during the day, evening, and night due to traffic noise from New England Highway and the general traffic hum surrounding the site.

Acoustic monitoring has been conducted at the site by this office to establish the background noise levels which will be used as basis for this assessment.

4.1 ENVIRONMENTAL NOISE DESCRIPTORS

Environmental noise constantly varies. Accordingly, it is not possible to accurately determine prevailing environmental noise conditions by measuring a single, instantaneous noise level.

To accurately determine the environmental noise a 15-minute measurement interval is utilised. Over this period, noise levels are monitored on a continuous basis and statistical and integrating techniques are used to determine noise description parameters.

In analysing environmental noise, three principal measurement parameters are used, namely $\mathbf{L_{10}}$, $\mathbf{L_{90}}$ and $\mathbf{L_{eq}}$.

The $\mathbf{L_{10}}$ and $\mathbf{L_{90}}$ measurement parameters are statistical levels that represent the average maximum and average minimum noise levels respectively, over the measurement intervals.

The $\mathbf{L_{10}}$ parameter is commonly used to measure noise produced by a particular intrusive noise source since it represents the average of the loudest noise levels produced by the source.

Conversely, the $\mathbf{L_{90}}$ level (which is commonly referred to as the background noise level) represents the noise level heard in the quieter periods during a measurement interval. The $\mathbf{L_{90}}$ parameter is used to set the allowable noise level for new, potentially intrusive noise sources since the disturbance caused by the new source will depend on how audible it is above the pre-existing noise environment, particularly during quiet periods, as represented by the $\mathbf{L_{90}}$ level.

The $\mathbf{L_{eq}}$ parameter represents the average noise energy during a measurement period. This parameter is derived by integrating the noise levels measured over the 15-minute period. $\mathbf{L_{eq}}$ is important in the assessment of environmental noise impact as it closely corresponds with human perception of a changing noise environment; such is the character of environmental noise.

4.2 EXTERNAL BACKGROUND NOISE LEVELS

Long term unattended noise monitoring was conducted to quantify the acoustic environment at the site.

4.2.1 Measurement Equipment

Unattended noise monitoring was conducted using a Rion NL-42 noise logger. The logger was programmed to store 15-minute statistical noise levels throughout the monitoring period. The equipment was calibrated at the beginning and the end of each measurement using a Rion NC-73 calibrator; no significant drift was detected. All measurements were taken on A-weighted fast response mode.

4.2.2 Measurement Location

An unattended noise monitor was placed on the eastern boundary of the site, at the fence of bowling green 3 facing Woodberry St. Refer to Figure 2 for detailed location.

4.2.3 Time of Measurement

The long-term monitoring was conducted from 20th of April to 3rd of May 2023.

4.2.4 Measurement Results

The measured background noise levels have been corrected for meteorological conditions (excessive wind and/or rain), as required by section 3.4 of the EPA Noise Policy for Industry. Exceedances of the 5m/s average wind speed limit of the EPA were noted and corrected for in determining the background noise levels.

The wind data presented has been obtained at a height of 10m from Maitland Airport Weather Station. Due to surface friction, there is a wind gradient between ground and the 10m height where the data was collected from. As the logger was placed in location in a suburban area with surrounding buildings, the wind speed at 1.5m above ground level (logger microphone height) is estimated to be 2/3 of the 10m wind speeds. This correction factor has been applied before assessing the 5 m/s wind criterion for valid background data.

The measured rating background noise levels summarised in the table below.

Table 4 – Rating Background Noise Levels

Time of Day	Measured Background Noise Level dB(A)$L_{90(period)}$
Day (7am – 6pm)	44
Evening (6pm – 10pm)	43
Night (10pm – 7am)	35

4.2.5 Background Noise Spectrum Measurements

In addition to the unattended noise monitoring, attended background noise measurements were conducted externally around the site to obtain a background noise spectrum.

The measured external background noise spectrum was measured in the corner of Woodberry St and Melbee St (refer to Figure 2) and results are presented in the table below:

Table 5 - Measured Background Noise Spectrums (External)

Frequency / Measurement	31.5Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	dB(A)
SLM1	54	53	48	43	42	44	41	33	28	**48**

Table 6 - Measured Background Noise Levels (Attended Measurements)

Unattended Measurement Location	Attended Measurement Location	Unattended Background Noise Level dB(A)$L_{90(period)}$	Attended Background Noise Level dB(A)$L_{90(period)}$	Relative Difference between Noise Monitor and Attended measurement*
Fence of bowling green 3 facing Woodberry St	Boundary of Closest Residential Receiver (R5)	48	48	+0

5 NOISE EMISSION CRITERIA

External noise emission criteria have been determined to satisfy the requirements below:

- NSW Office of Liquor, Gaming and Racing (OLGR) Liquor Licence No. LIQC300238903 acoustic requirements.
- NSW EPA Noise Policy for Industry 2017.

5.1 PREMISES LICENSE CONDITIONS

Noise emissions from licensed premises are to comply with the acoustic requirements imposed by the NSW OLGR. These guidelines relate to noise generated by patrons and music, as per Liquor Licence No. LIQC300238903, condition dated 1/07/2008, as repeated:

- The LA10 noise level emitted from the licensed premises shall not exceed the background noise level in any Octave Band Centre Frequency (31.5Hz - 8kHz inclusive) by more than 5dB between 07:00 am and 12:00 midnight at the boundary of any affected residence.
- The LA10 noise level emitted from the licensed premises shall not exceed the background noise level in any Octave Band Centre Frequency (31.5Hz - 8kHz inclusive) between 12:00 midnight and 07:00 am at the boundary of any affected residence. For the purposes of this condition, the LA10 can be taken as the average maximum deflection of the noise emission from the licensed premises.
- Notwithstanding compliance with the above, the noise from the licensed premises shall not be audible within any habitable room in any residential premises between the hours of 12:00 midnight and 07:00 am. This is a minimum standard. In some instances the Office of Liquor, Gaming and Racing may specify a time earlier than midnight in respect of the above condition.

The following assessment criteria have been determined based on site measurements. Measurements were conducted within the vicinity of the project site to obtain background noise spectrums for the day, evening, and night periods. These apply when measured outside the open window of a residential façade.

Table 7 - OLGR Noise Emission Objectives to Residential Receivers (Patron/Music Noise) dB(A) $L_{10(15min)}$

Receiver	Criteria	Time	Frequency								dB(A)
			31.5Hz	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	
R1-R7	BG+5	Day 7am-6pm	56	55	49	44	43	45	43	35	29	49
		Evening 6pm-10pm	55	54	48	43	42	44	42	34	28	48
		Early Night 10pm-12am	47	46	40	35	34	36	34	26	20	40
	BG+0	Late Night 12am-7am	42	41	35	30	29	31	29	21	15	35

5.2 NSW EPA NOISE POLICY FOR INDUSTRY (NPFI) 2017

The NSW EPA NPfI 2017 has two criteria which both are required to be satisfied, namely Intrusiveness and amenity. The NPfI sets out acceptable noise levels for various localities. The policy indicates four categories to assess the appropriate noise level at a site. They are rural, suburban, urban and urban/industrial interface. Under the policy the nearest residential receivers would be assessed against the suburban criteria.

Noise levels are to be assessed at the property boundary or nearby dwelling, or at the balcony or façade of an apartment.

5.2.1 Intrusiveness Criterion

The guideline is intended to limit the audibility of noise emissions at residential receivers and requires that noise emissions measured using the L_{eq} descriptor not exceed the background noise level by more than 5dB(A). Where applicable, the intrusive noise level should be penalised (increased) to account for any annoying characteristics such as tonality.

Background noise levels adopted are presented in Section 4. Noise emissions from the site should comply with the noise levels presented below when measured at nearby property boundary.

Table 8 - NSW EPA NPfI 2017 Intrusiveness Criteria

Receiver	Time of day	Rating Background Noise Level dB(A)$L_{90(period)}$	Intrusiveness Criteria dB(A)$L_{eq(15min)}$
Residential	Day	44	49
	Evening	43	48
	Night	35	40

5.2.2 Project Amenity Criterion

The guideline is intended to limit the absolute noise level from all noise sources to a level that is consistent with the general environment.

The EPA's NPfI 2017 sets out acceptable noise levels for various localities. The recommended noise amenity area is based upon the measured background noise levels at the sensitive receiver. Based on the measured background noise levels detailed in Section 4 the Noise Policy for Industry suggests the adoption of the 'suburban' categorisation.

The NPI requires project amenity noise levels to be calculated in the following manner:

$$L_{Aeq,15min} = \textit{Recommended Amenity Noise Level} - 5\ dB(A) + 3\ dB(A)$$

The amenity levels appropriate for the receivers surrounding the site are presented in Table 9.

Table 9 - NSW EPA NPfI 2017 Amenity Noise Levels

Type of Receiver	Time of day	Recommended Noise Level dB(A)$L_{eq\ (period)}$	Project Amenity Noise Level dB(A)$L_{eq\ (15\ minute)}$
Residential – Suburban	Day	55	53
	Evening	45	43
	Night	40	38
Hotel	Day	60	58
	Evening	50	48
	Night	45	43
Commercial	When in use	65	63
Childcare - internal	Noisiest 1h	35	33
Childcare – external (Active Recreation)	When in use	55	53

The NSW EPA Noise Policy for Industry (2017) defines:

- Day as the period from 7 am to 6 pm Monday to Saturday and 8 am to 6 pm Sundays and Public Holidays.
- Evening as the period from 6 pm to 10 pm.
- Night as the period from 10 pm to 7 am Monday to Saturday and 10 pm to 8 am Sundays and Public Holidays.

5.2.3 Sleep Arousal Criteria

The Noise Policy for Industry recommends the following noise limits to mitigate sleeping disturbance:

Where the subject development / premises night -time noise levels at a residential location exceed:

- *$L_{eq,15min}$ 40 dB(A) or the prevailing RBL plus 5 dB, whichever is the greater, and/or*
- *L_{Fmax} 52 dB(A) or the prevailing RBL plus 15 dB, whichever is the greater,*

a detailed maximum noise level even assessment should be undertaken.

Table 10 - Sleep Arousal Criteria for Residential Receivers

Receiver	Rating Background Noise Level dB(A)$L_{90(night)}$	Emergence Level
Residences Surrounding Site Night (10pm – 7am)	35	40 dB(A)$L_{eq,\ 15min}$; 52 dB(A)L_{Fmax}

5.3 SUMMARISED NOISE EMISSION CRITERIA (NSW EPA NPFI 2017)

Table 11 - NSW EPA NPfI 2017 Noise Emission Criteria

Receiver	Time Period	Rating Background Noise Level dB(A)$L_{90(period)}$	Project Amenity Criteria dB(A) $L_{eq(15min)}$	Intrusiveness Criteria $L_{eq(15min)}$	NPfI Criteria for Sleep Disturbance
Residential	Day	44	53	**49**	-
	Evening	43	**43**	48	-
	Night	35	**38**	40	40 dB(A)$L_{eq, 15min}$; **52 dB(A)L_{Fmax}**
Hotel	Day	-	**58**	-	-
	Evening	-	**48**	-	-
	Night	-	**43**	-	-
Commercial	When in use	-	**63**	-	-
Childcare - internal	Noisiest 1h	-	**33**	-	-
Childcare – external (Active Recreation)	When in use	-	**53**	-	-

The project noise trigger levels are indicated by the bolded values in the tables above.

6 ASSESSMENT OF NOISE IMPACTS

Noise emissions from the site are addressed for the following noise sources:

- Patron and background music noise from within the premises.
- Patron and background music noise from the outdoor areas.

6.1 PATRON/MUSIC NOISE

Noise emissions at most affected façade of surrounding residential developments have been presented in this Section and assessed against the relevant acoustic criteria. Predicted noise levels are based on the following assumptions:

6.1.1 Assumed Noise Levels

- The average sound power level per patron can be seen below and is assumed that one in three patrons are speaking at any one time. Noise levels were extracted from Association of Australasian Acoustical Consultants *"Licensed Premises Noise Assessment Technical Guideline"* Version 2.0.
    - It is assumed that noise levels externally are to be normal vocal effort and a raised vocal effort is expected inside function rooms.

Table 12 - Patron Speech Spectrum (Normal & Raised Vocal Effort)

Noise Level SWL dB(A)L_{10} – Frequency (Hz)										
Freq(Hz)	**31.5Hz**	**63Hz**	**125Hz**	**250Hz**	**500Hz**	**1kHz**	**2kHz**	**4kHz**	**8kHz**	**A-wt**
dB(A)	68	68	68	68	62	59	59	57	68	**69**
dB(A)	76	76	76	76	71	67	67	65	76	**77**

- Amplified PA system within the Function Rooms is assumed to be limited to background music, creating a spatially averaged sound pressure level of 80dB(A)L_{10} until 12am, and 75dB(A)L_{10} after 12am.
- Amplified PA system within the external areas is assumed to be limited to background music and announcements, with the occasional viewing of sports events.
    - Noise levels not to exceed 60 dB(A)L_{10} at 1 metre away from the speaker.
    - From 10pm-7am, no external PA is allowed to be in use.
- The spectrum seen below is based on measurements taken by this office on previous similar jobs.

Table 13 – PA System Spectrum

Noise Level SPL dB(A)L_{10} – Frequency (Hz)										
Freq(Hz)	**31.5Hz**	**63Hz**	**125Hz**	**250Hz**	**500Hz**	**1kHz**	**2kHz**	**4kHz**	**8kHz**	**A-wt**
dB(A)	80	80	84	76	81	74	68	65	59	**80**
dB(A)	75	75	79	71	76	69	63	60	54	**75**
dB(A)	60	60	64	56	61	54	48	45	39	**60**

6.1.2 Assumed Walls/Doors/Glazing

- Existing glazing and entry doors are assumed to be 6mm float.
- External walls are assumed to be masonry.
- Windows and doors are assumed to be closed at all times, except egress and ingress of patrons.

6.2 PREDICTED NOISE LEVELS AT SURROUNDING RECEIVERS

Assessment of noise emissions against the relevant acoustic criteria for most affected nearby residential developments is presented in the following tables (compliance is achieved for R1-R4 and R6-R7 granted compliance is achieved for R5). Predicted noise levels factor in losses due to distance and barrier effects, calculated at the nearest affected façade, along with all recommendations in Section 7, assumptions in Section 6, and occupancy and hours of operation in Section 3.

Table 14 - Patron/Music Noise to R5

Receiver Location	Time of Day	Item	Octave Band Noise Levels, dB(A) $L_{10\ (15min)}$									
			31.5Hz	**63Hz**	**125Hz**	**250Hz**	**500Hz**	**1kHz**	**2kHz**	**4kHz**	**8kHz**	**A-wt**
R5	Day 7am to 6pm	Predicted Noise Level	44	44	46	42	43	38	33	33	29	**44**
		Criteria (BG+5)	56	55	49	44	43	45	43	35	29	**49**
		Complies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
	Evening 6pm to 10pm	Predicted Noise Level	44	44	46	42	43	38	33	33	29	**44**
		Criteria (BG+5)	56	55	49	44	43	45	43	35	29	**48**
		Complies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
	Early Night 10pm to 12am	Predicted Noise Level	36	36	35	34	34	28	24	24	20	**35**
		Criteria (BG+5)	47	46	40	35	34	36	34	26	20	**40**
		Complies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**
	Late Night 12am-7am	Predicted Noise Level	31	31	27	21	19	11	<10	<10	<10	**19**
		Criteria (BG+0)	42	41	35	30	29	31	29	21	15	**35**
		Complies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	**Yes**

Note: All recommendations in place as per Section 7.

7 RECOMMENDATIONS

The following noise emission controls should be implemented for the development:

7.1 GENERAL MANAGEMENT CONTROLS

- A combined maximum of 30 patrons to remain outside after 10pm (located at the balcony area or between greens and club, no patrons allowed in banks or greens), and no external patrons after 12am.
- Doors and glazing for Function Room 1 (including existing function room adjacent to proposed function room 1) to be minimum 10.38mm glazing (minimum R_w35) with acoustic seals. Doors are to be installed with all gaps minimised. Any other spaces new spaces to be minimum 6.38mm laminate (R_w31) with acoustic seals.
- Windows and doors are assumed to be closed at all times, except for egress and ingress of patrons.
- All new external doors to have automatic closers.
- External disposal of bottles/waste should be done prior to 10pm, but not before 7am.
- Signs are to be displayed at the entrance of the development and in all external areas reminding patrons to minimise noise when departing the premises and when outside in the balcony/greens, especially during evening and night-time.
- It is recommended that "barefoot" bowling is not to be conducted in the premises.
- It is recommended that the management keep a complaint register on site and that noise complaints are registered (if any) and what course of remedial action has been taken. This register should be stored on site and be accessible at all times.
- Underside of the roof over new external areas to be covered in absorptive lining with minimum NRC 0.95, for at least 50% of ceiling area.

7.2 EXPECTED NOISE LEVELS

- Amplified PA system within the Function Rooms is assumed to be limited to background music, creating a spatially averaged sound pressure level of 80dB(A)L_{10} until 12am, and 75dB(A)L_{10} after 12am.
- Amplified PA system within the external areas is assumed to be limited to background music and announcements, with the occasional viewing of sports events.
    - Noise levels not to exceed 60 dB(A)L_{10} at 1 metre away from the speaker.
    - From 10pm-7am, no external PA is allowed to be in use.
- It is recommended that a full acoustic review of the AV system is conducted when design is finalised to make sure compliance with noise levels are achieved.
- No live music is expected at the venue.

7.3 MECHANICAL NOISE

Generally, this is undertaken during CC stage when design of the mechanical systems is finalised. Notwithstanding, compliance with the mechanical noise emission criteria is both practical and reasonable with the use of one or more of (but not limited to) the following:

- Acoustic Barriers/Screens.
- Acoustic Louvres.
- Internally lined ductwork.
- External Lagging.
- Silencers.
- Fan speed control.
- Etc.

8 CONCLUSION

This report has been prepared to assess noise impacts associated with patron and music noise from the proposed re-development of Club Maitland City, located at 14 Arthur St, Rutherford NSW 2320.

Noise emission analysis indicates that the site is capable of complying with the commonly adopted NSW Office of Liquor, Gaming and Racing (OLGR) requirements used in the assessment of liquor licensed developments.

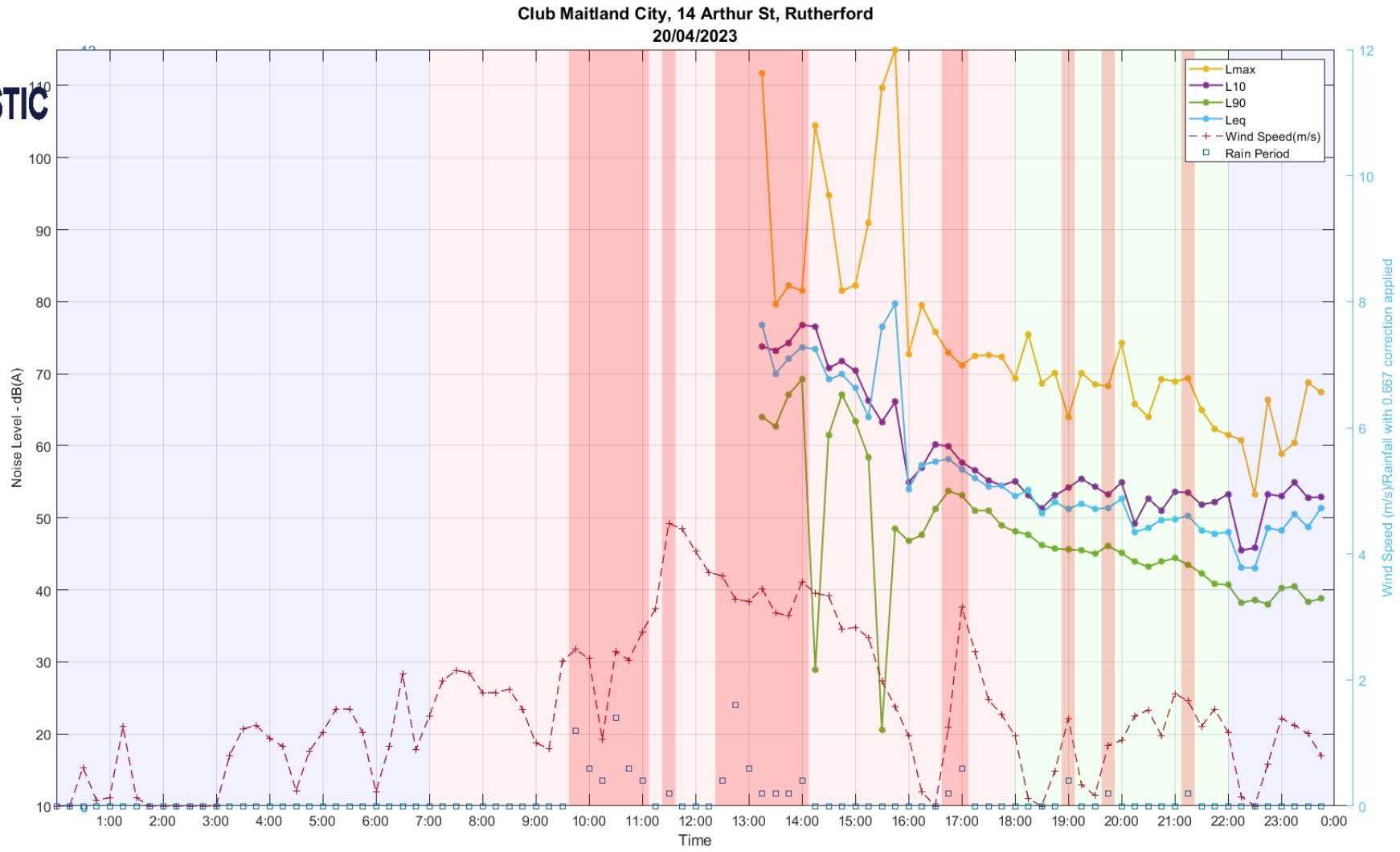
Provided that the recommendations in Section 7 of this report are adopted, noise emissions to all nearby residential receivers are predicted to satisfy the external noise emission requirements of NSW Office of Liquor, Gaming and Racing (OLGR).

We trust this information is satisfactory. Please contact us should you have any further queries.

Yours faithfully,

Acoustic Logic Pty Ltd
Bruno Lobato Da Jornada

APPENDIX 1 – UNATTENDED NOISE MONITORING DATA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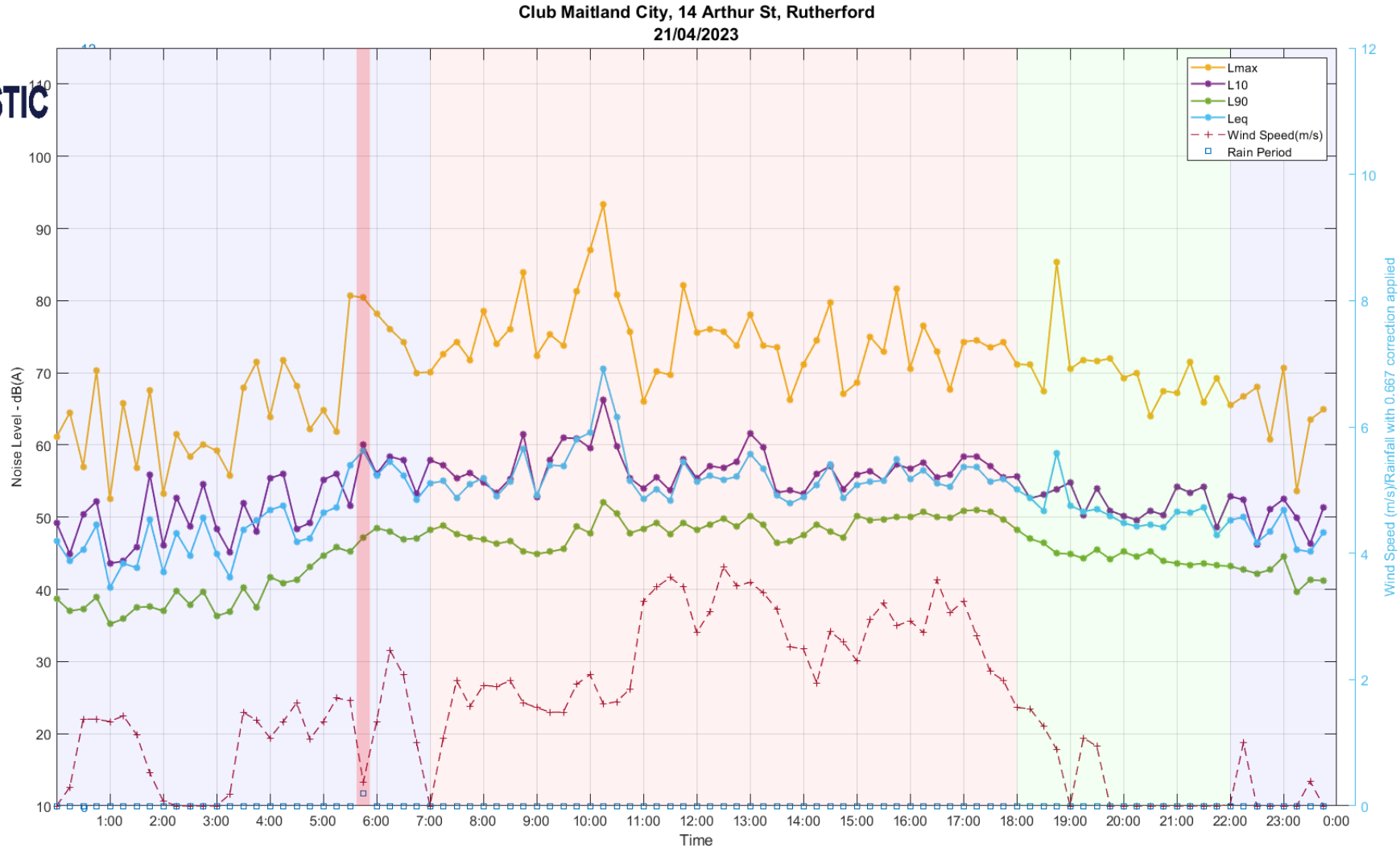
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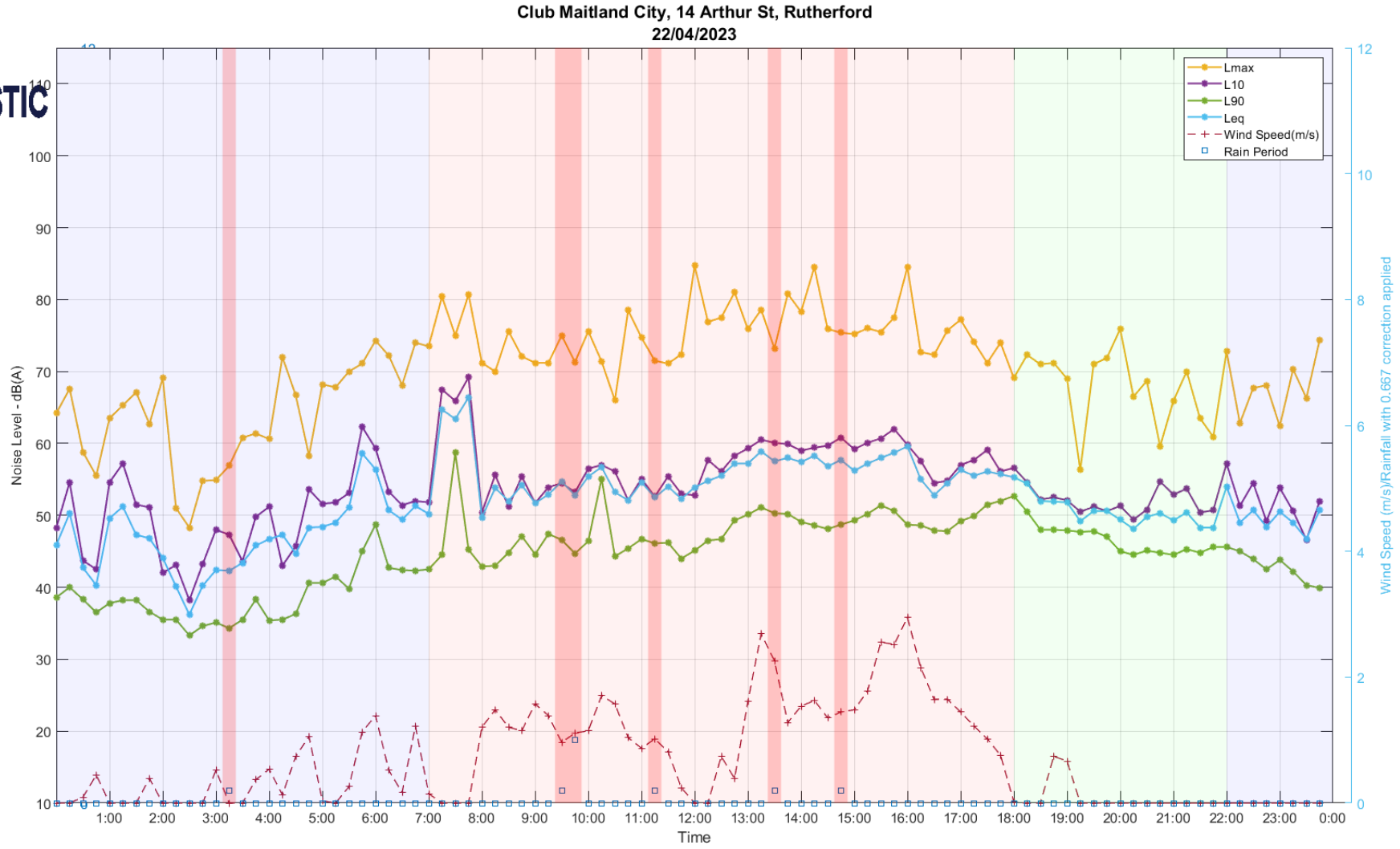
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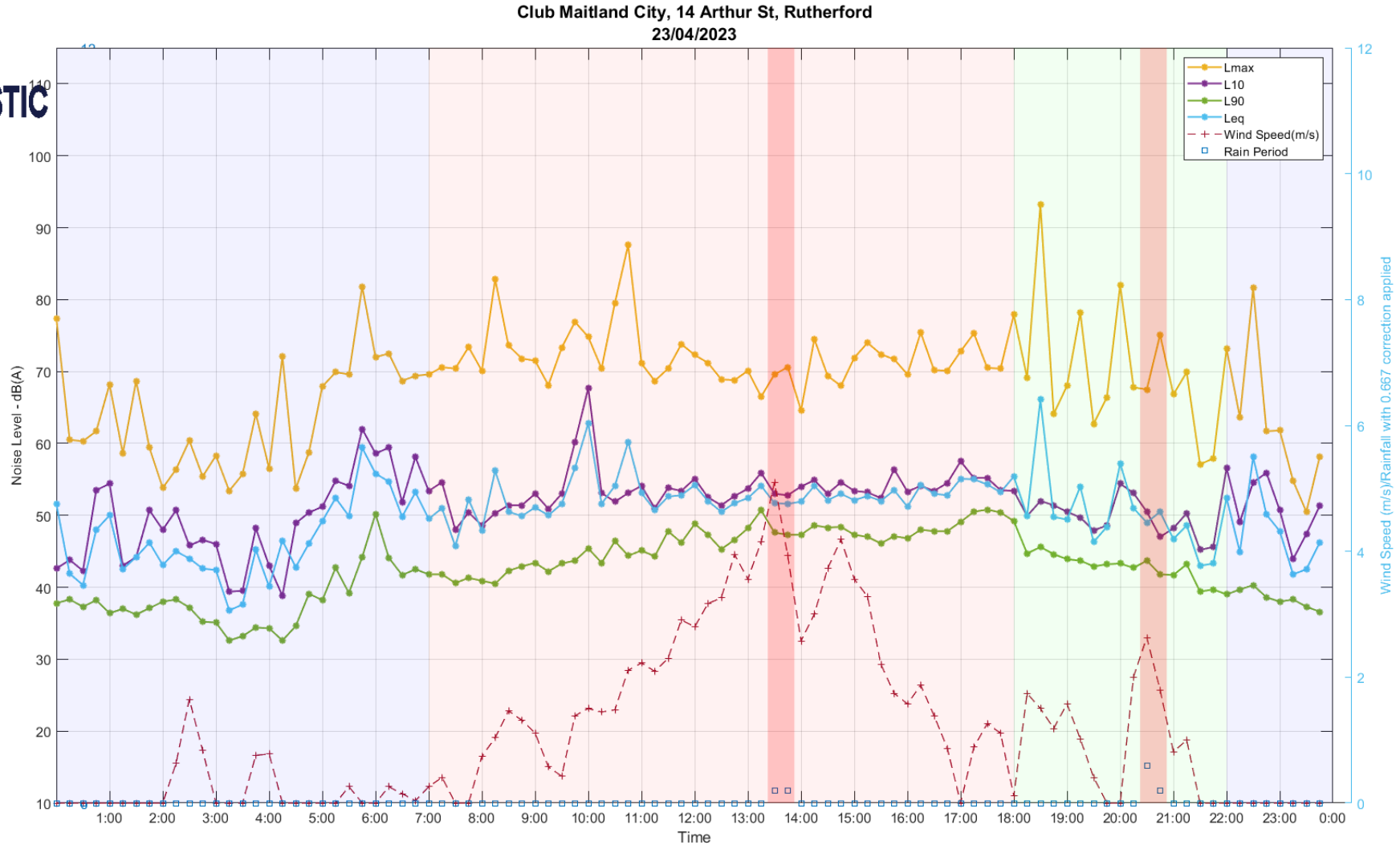
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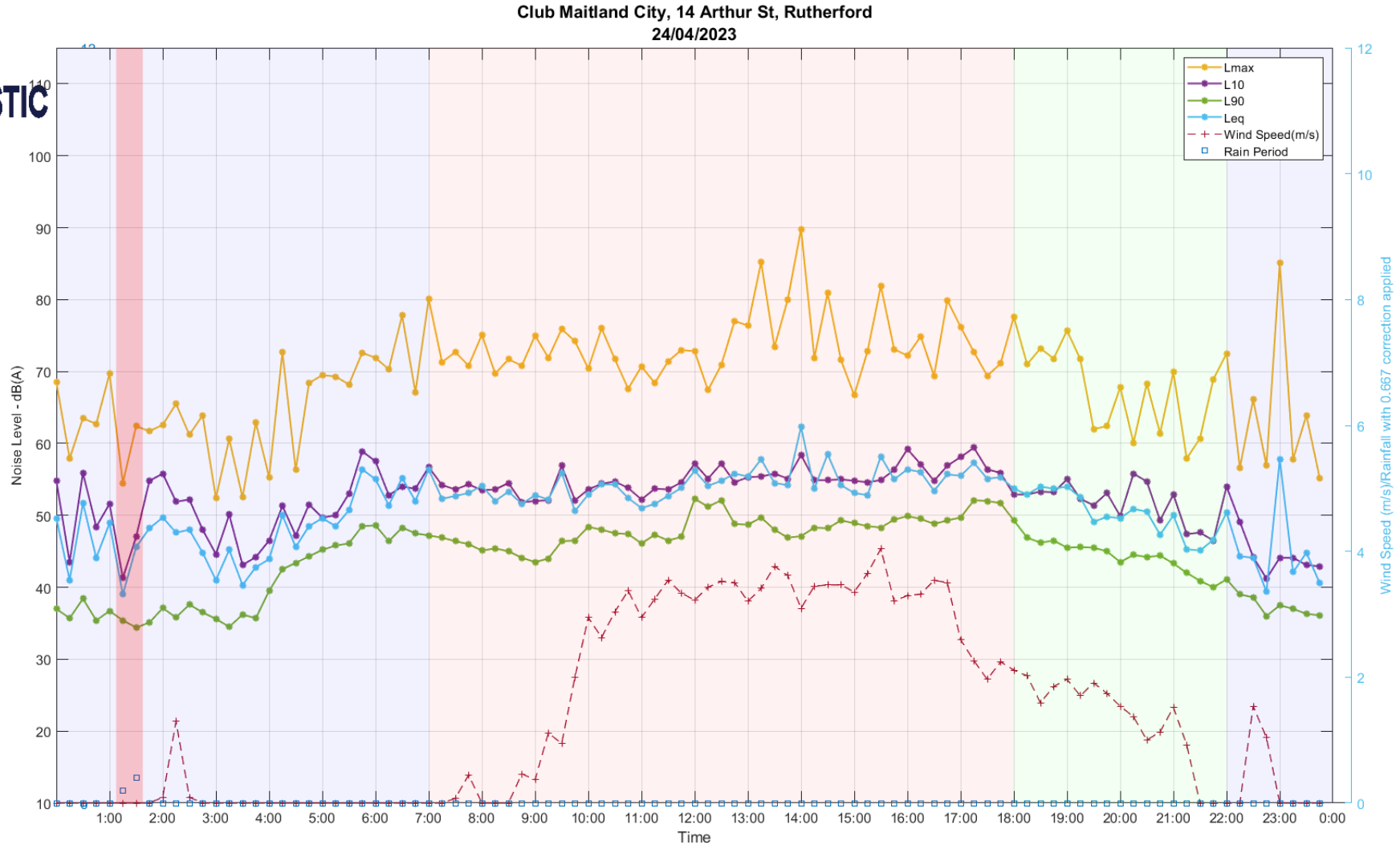
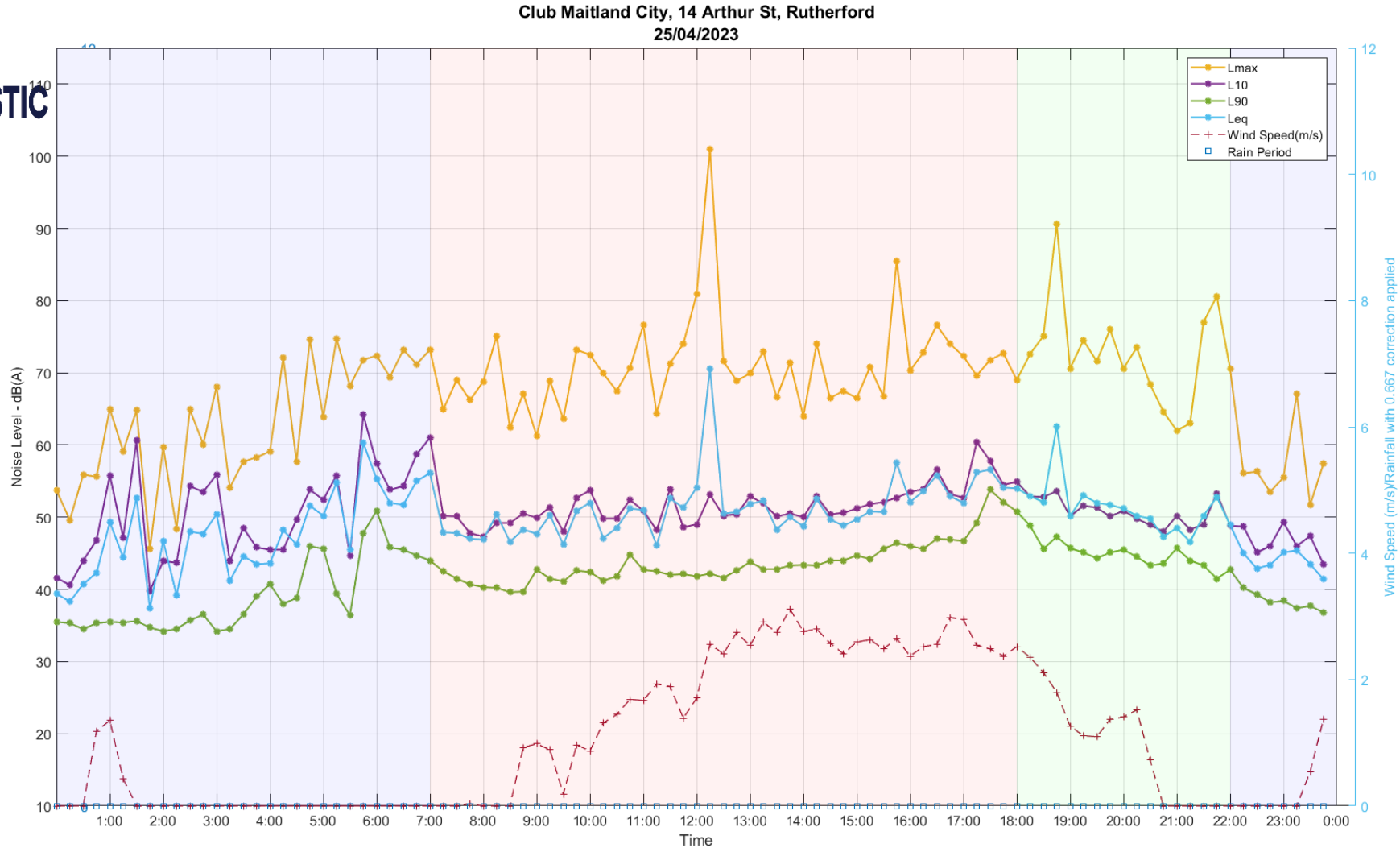
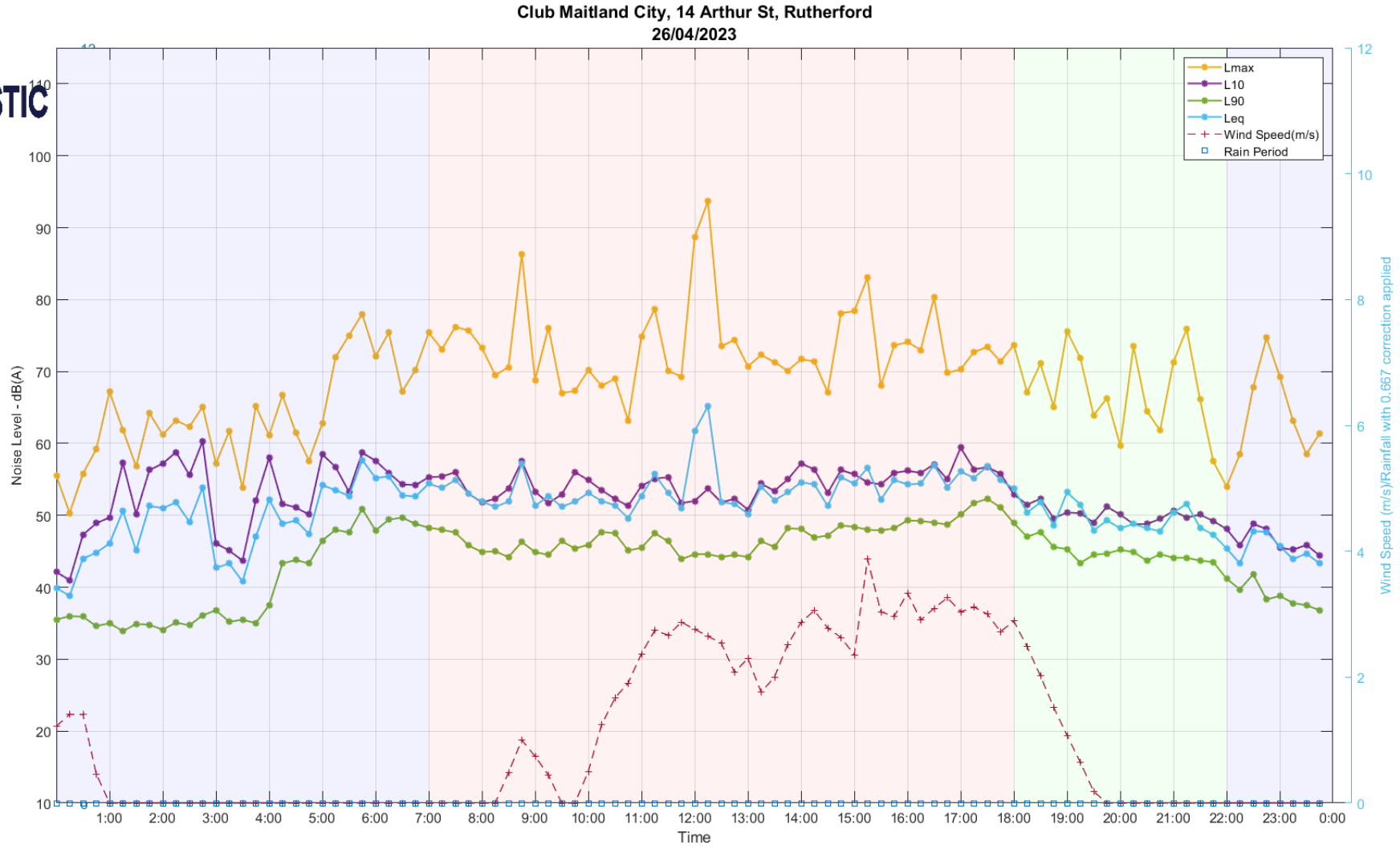
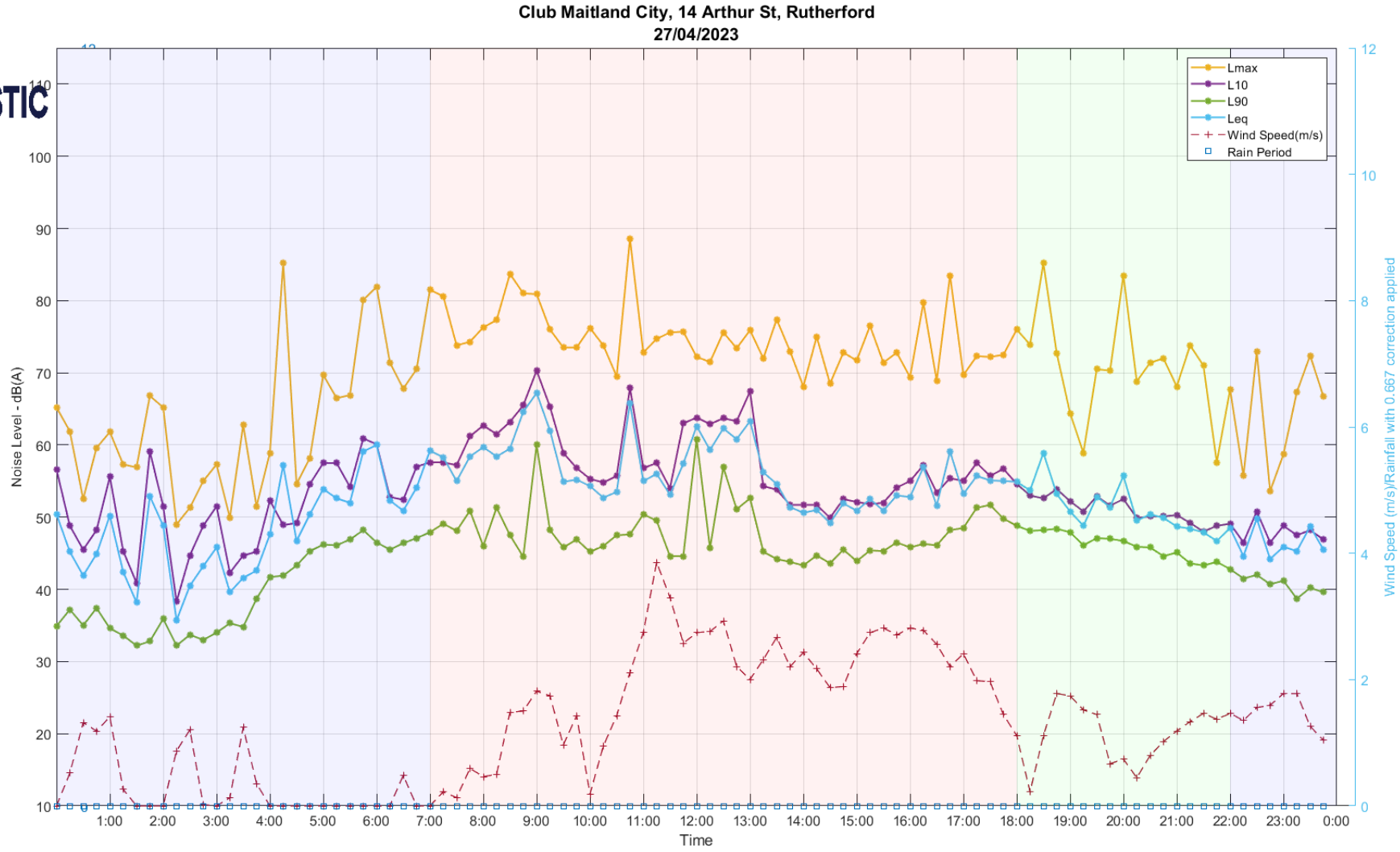
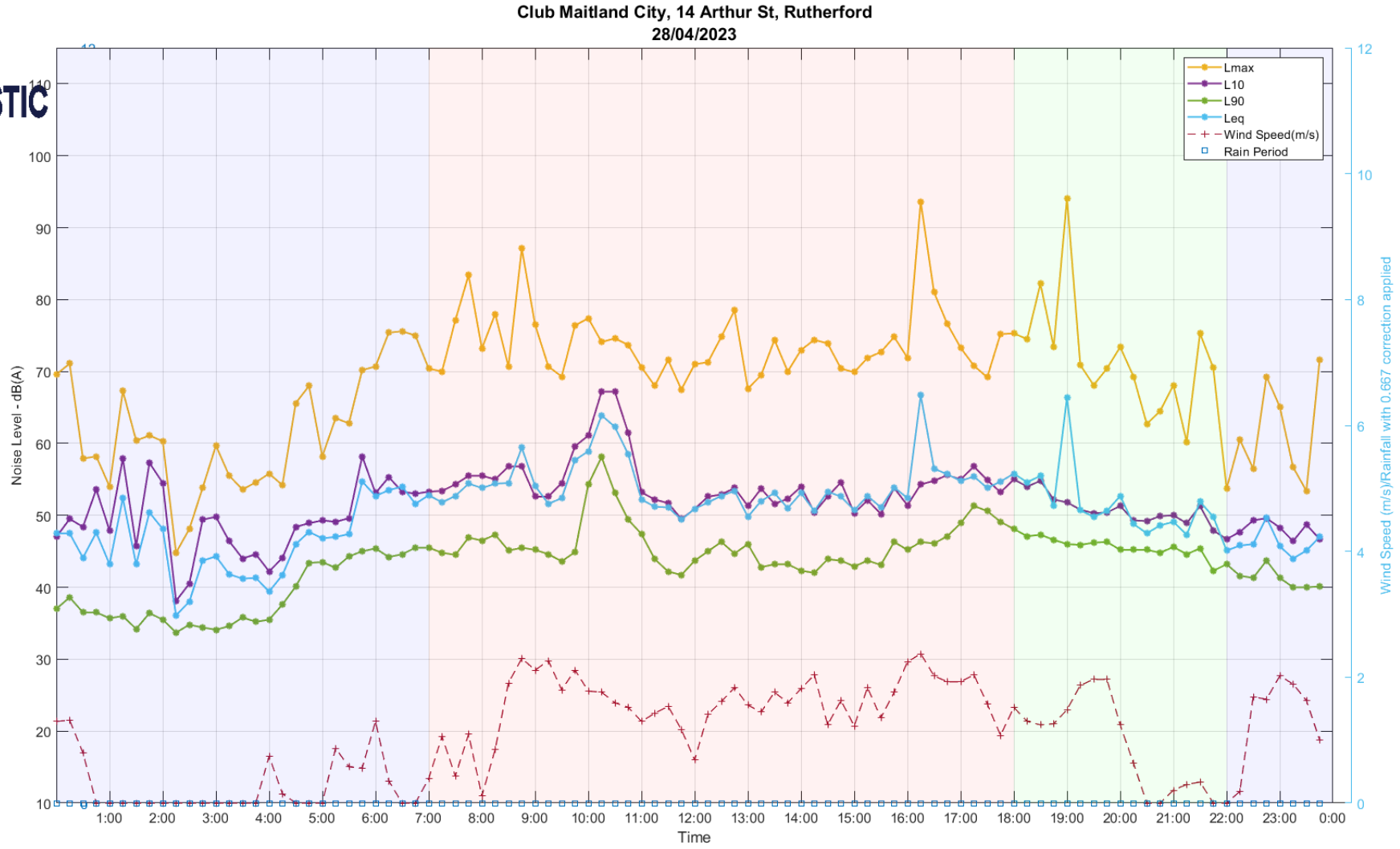
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
24/04/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
25/04/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
26/04/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
27/04/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
28/04/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
15:00
16:00
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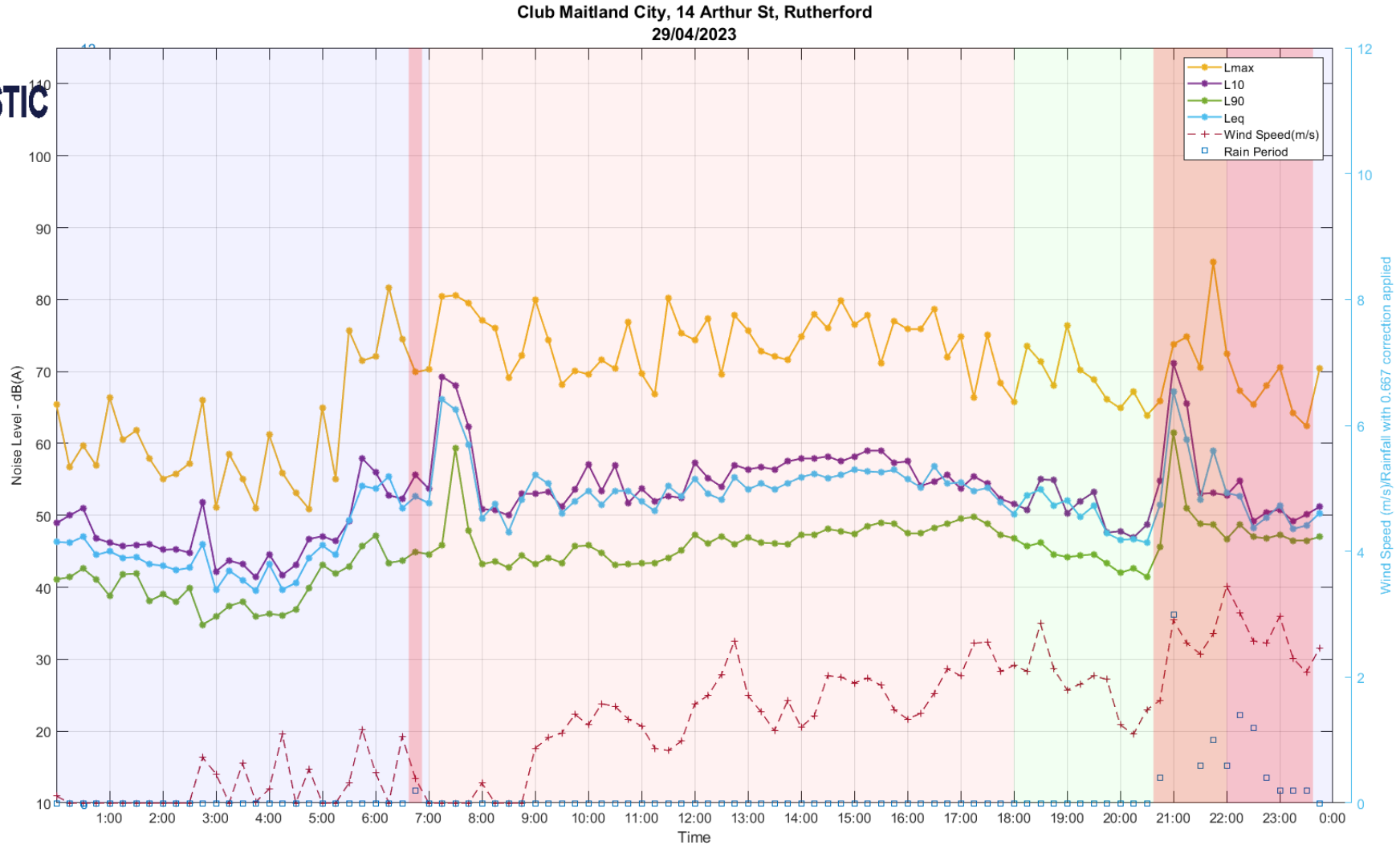
18:00
19:00
20:00
21:00
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
29/04/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
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19:00
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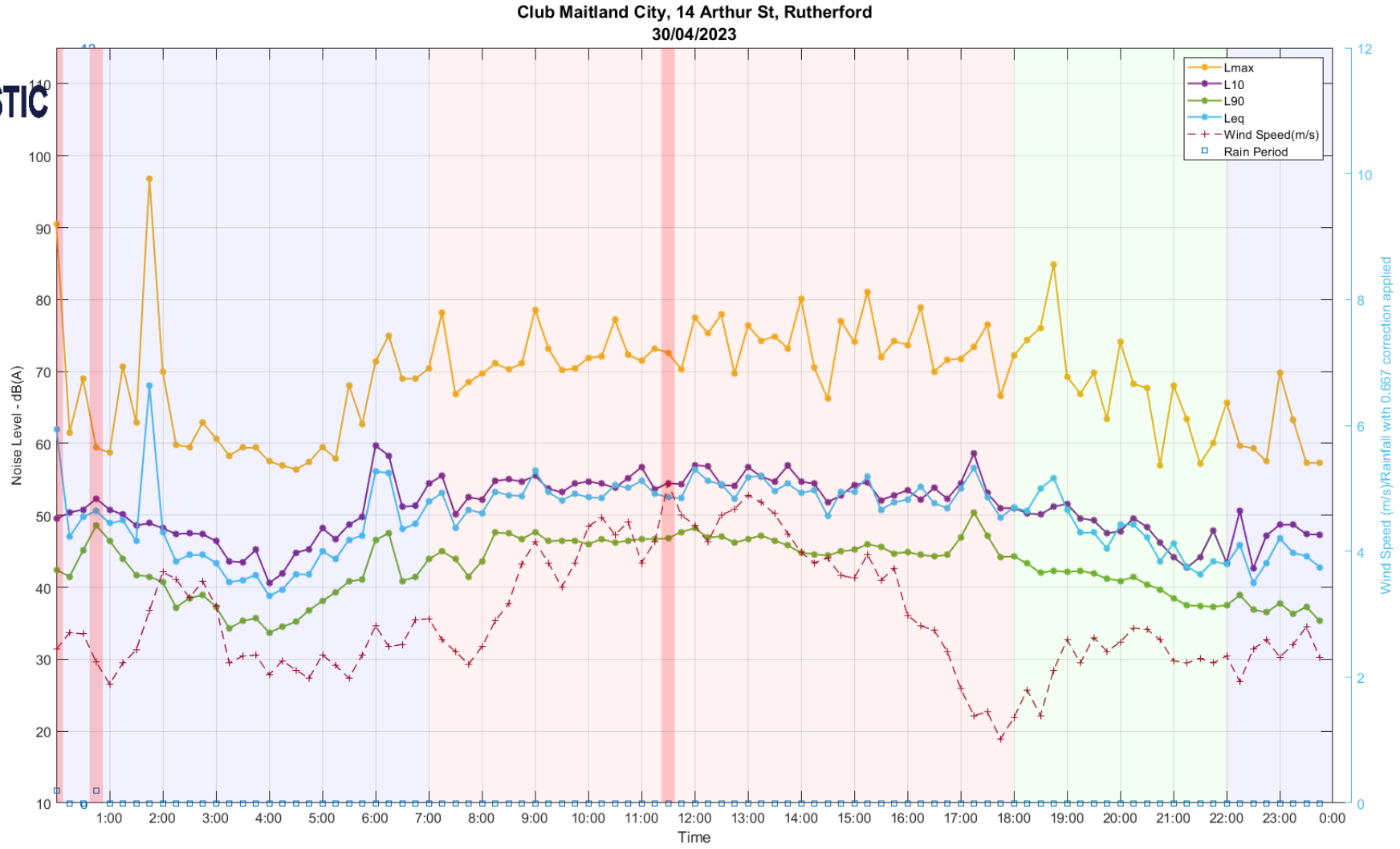
21:00
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
30/04/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
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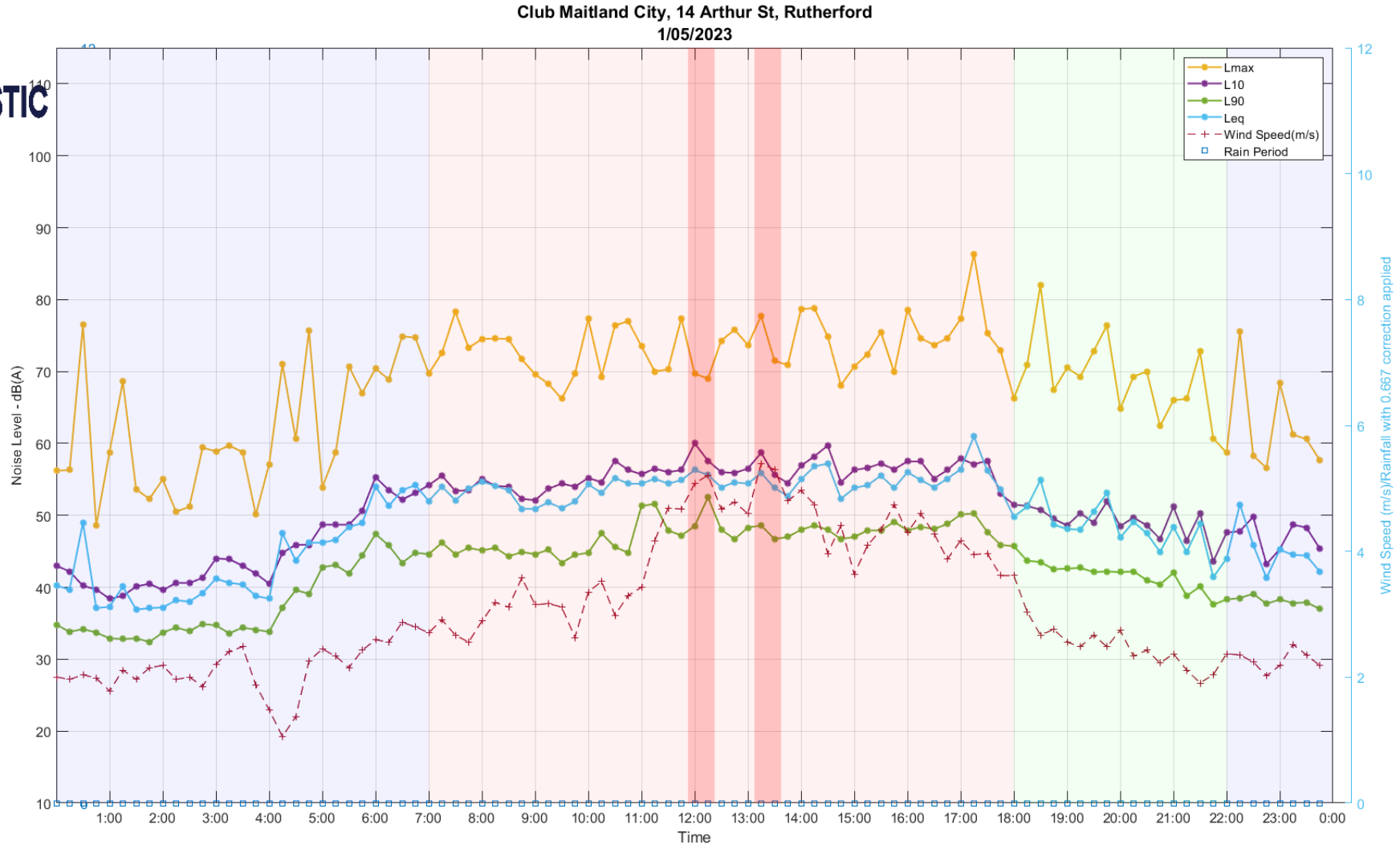
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
1/05/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
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10:00
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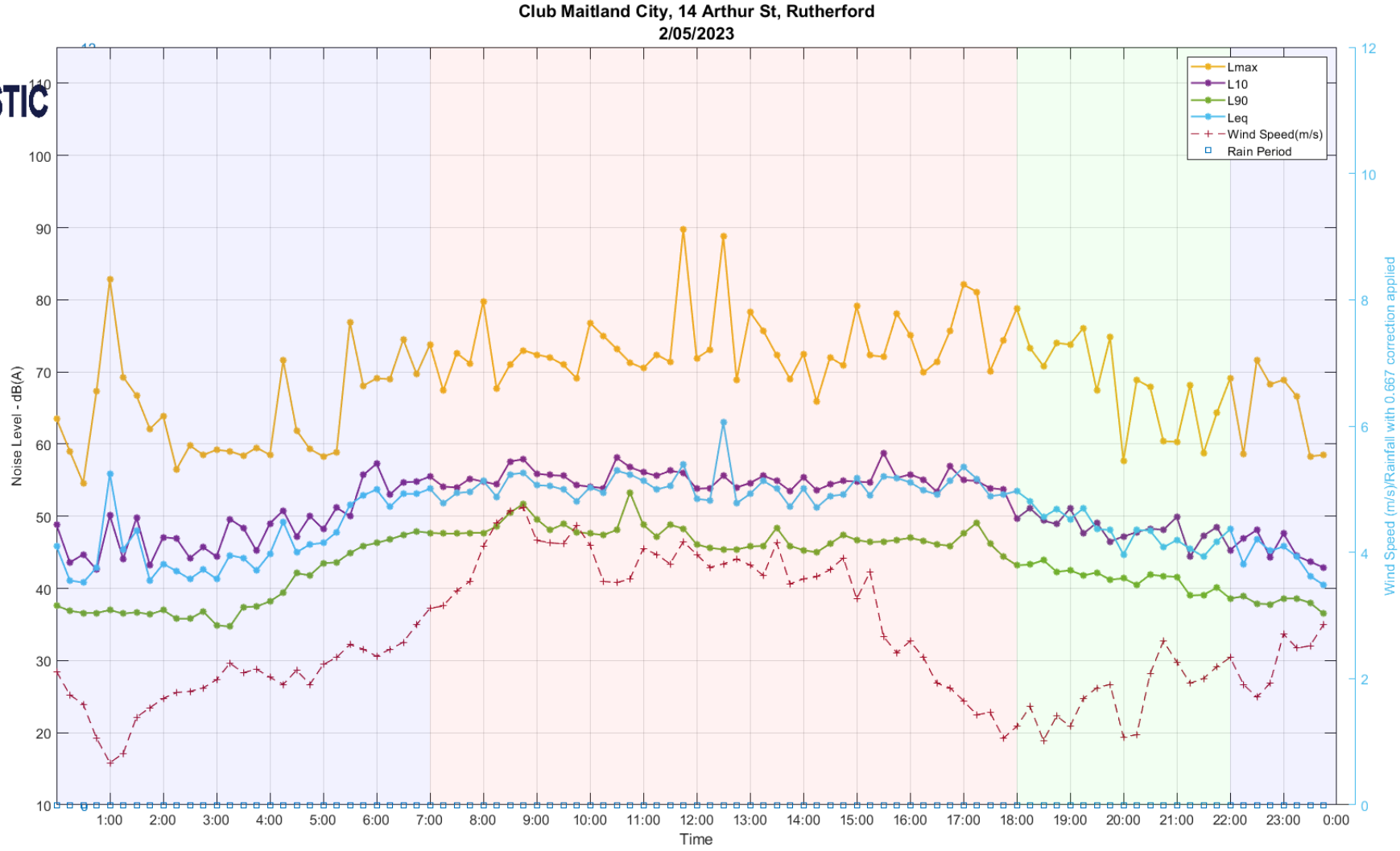
21:00
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
2/05/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
10:00
11:00
12:00
13:00
14:00
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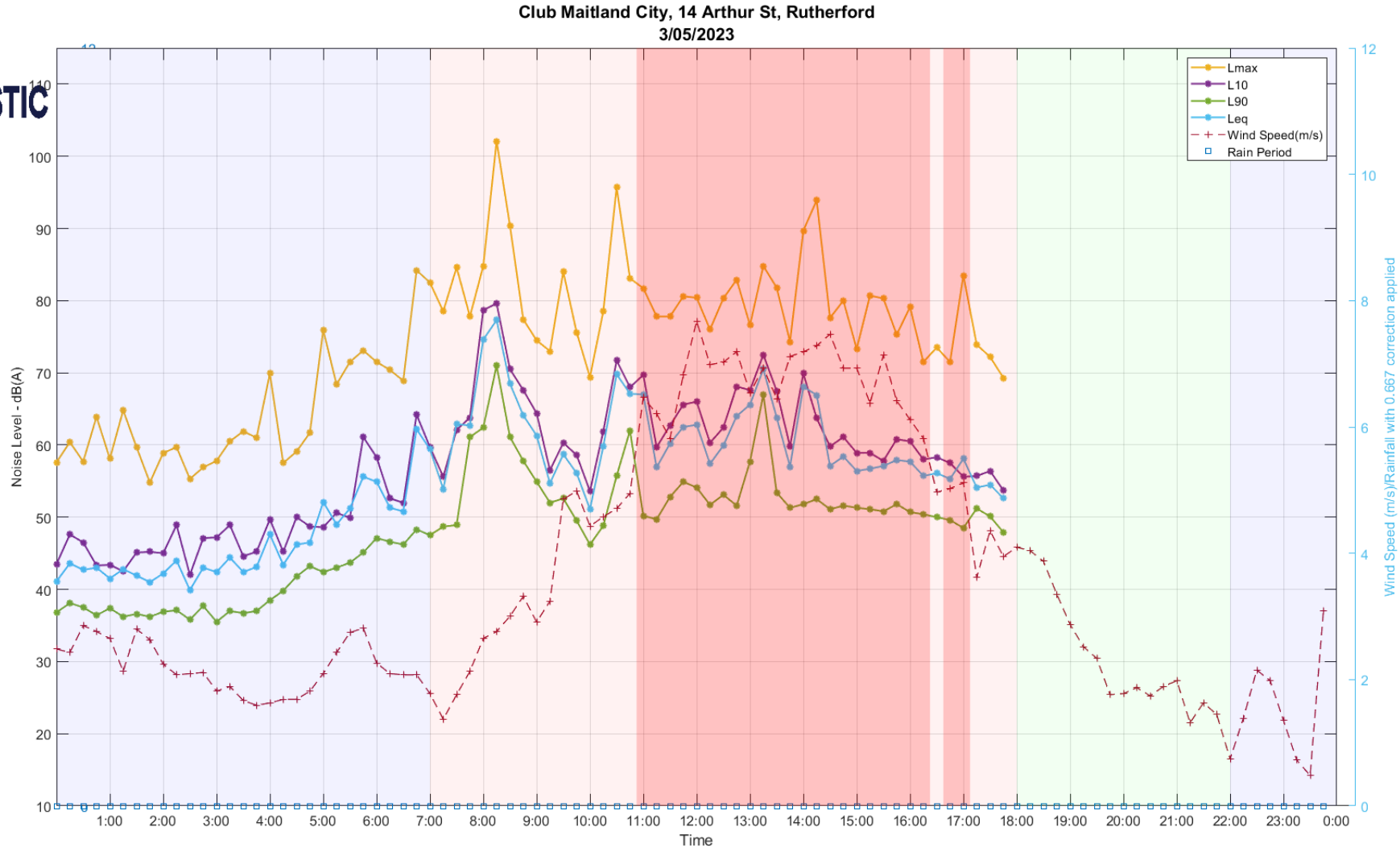
22:00
23:00
0:00


Club Maitland City, 14 Arthur St, Rutherford
3/05/2023
Lmax
L10
L90
Leq
Wind Speed(m/s)
Rain Period
Noise Level - dB(A)
Wind Speed (m/s)/Rainfall with 0.667 correction applied
Time
1:00
2:00
3:00
4:00
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