SUNCORP STADIUM

Post Event Report

Foo Fighters Tour

12 December 2023

Report Requirements

This report is reproduced in accordance with the legislative requirements of the Queensland Government for Special Events held at Suncorp Stadium.

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Contents

1.0 Event Overview

Suncorp Stadium hosted the Foo Fighters concert on Tuesday 12 December 2023. This is the third time Foo Fighters have hosted a concert at Suncorp Stadium and was the final concert held in Australia on the current tour.

Detailed planning was undertaken to identify and minimise potential adverse impacts on the local community in accordance with the Major Sports Facilities Regulation 2014 for Special Events and the updated Major Sports Facilities Act 2001 (updated 31 October 2022)

A specific Operational and Transport & Traffic Management Plan was developed for the concert and presented to the Stadium Management Advisory Committee (SMAC), Transport Coordination Group (TCG) and Stadiums Queensland as required in the Regulations.

A dedicated Call Centre was established for the concert periods to enable the general public to contact the Stadium on any issues arising either during the bump-in, bump-out periods and during the concert itself. A local community letterbox drop was also conducted to provide residents and local businesses within the Lang Park Traffic Area with relevant information pertaining to the events.

2.0 Event Summary

Key deliverables for the concert event are:

ATTENDANCE

47,585

COMPLIMENTS

1

COMPLAINTS

9

POLICE ISSUES

7

SECURITY ISSUES

27

NOISE COMPLAINTS

1

3.0 Ticketing Operations

3.1 Concert Program

Running times for the concert were as follows:

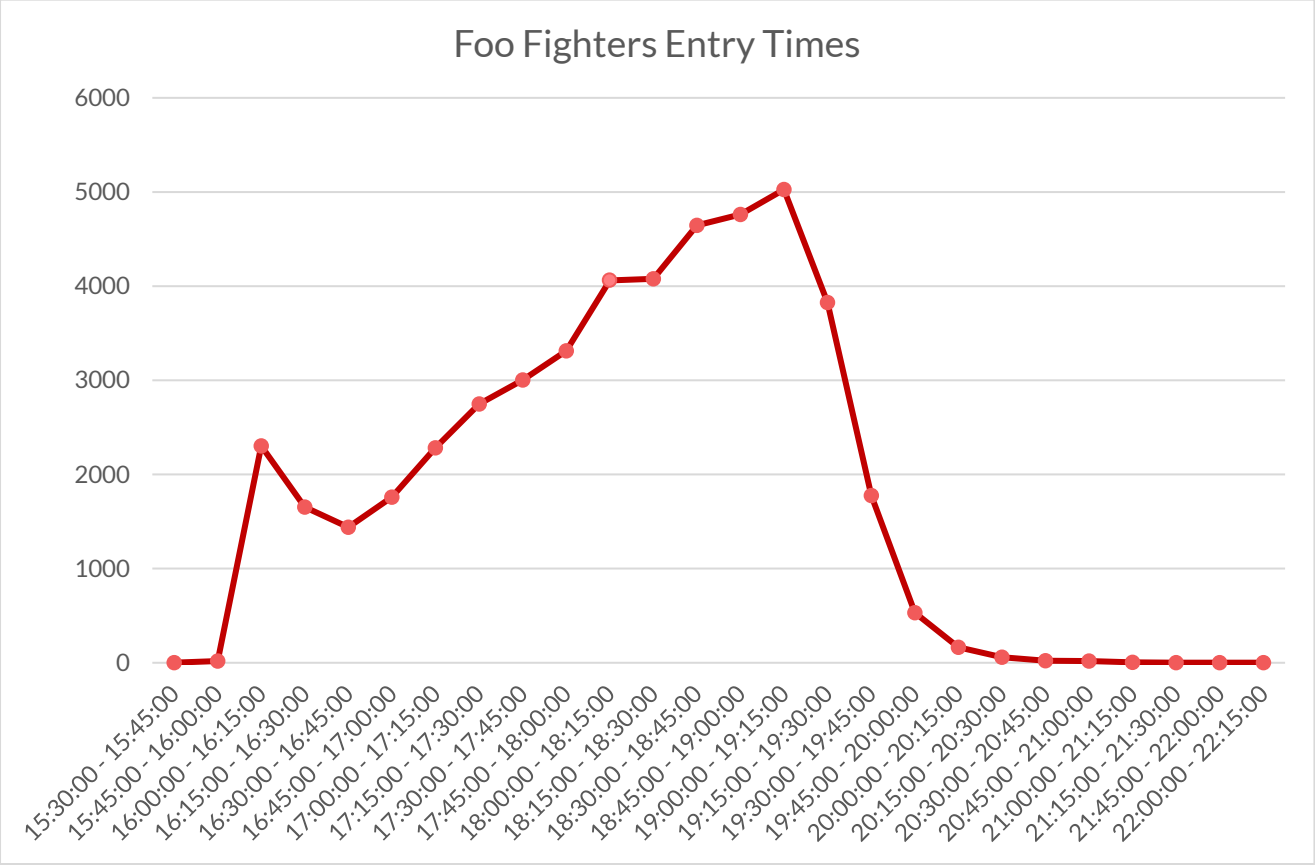
	TIME
Early Arrival Entry (GA)	16:00
Public Entry Gates	16:05
Support Act 1 commenced	17:00
Support Act 2 commenced	18:02
Main Act commenced	19:33
Main Act conclusion	22:25

3.2 Ticket Sales

	SOLD	ATTEND	%
Field – General Admission Standing 1	8,398	8,175	97.4%
Field – General Admission Standing 2	8,500	8,253	97.1%
Grandstand Seating	30,819	29,797	96.7%
Corporate Seating	1,398	1,360	97.3%
TOTAL SALES	49,115	47,585	96.9%
NO SHOWS		1,530	

3.3 Turnstile and Gate Activity

GATE	TICKET NUMBERS	% CROWD	OPEN TIME PRE MAIN ACT
Gate A	10,009	21.0%	3.5 hours
Gate B	9,732	20.4%	3.5 hours
South Hand Scanners	4,219	8.9%	3.5 hours
Gate C	3,990	8.4%	3.5 hours
Gate D	6,843	14.4%	3.5 hours
Gate E	7,283	15.3%	3.5 hours
North Hand Scanners	4,755	10.0%	3.5 hours
Gate F	754	1.6%	3.5 hours
TOTAL	47,585	100%	



3.4 Stadium Memberships

This event was not included in the Stadium Memberships Entitlements however Suncorp Stadium Life Ground Members were permitted to utilize their tickets. Suncorp Stadium Members were provided with a presale opportunity to purchase tickets for the event.

4.0 Local Resident Management

4.1 Call Centre Operations

The Stadium established a Concert Hotline for local residents and businesses. The Hotline was manned by trained Stadium staff during the following times:

Monday 11 December 2023	0900 – 1700
Tuesday 12 December 2023	0900 – 2330

To assist with major complaints or issues, Call Centre operators had direct access to the Stadium's main control room and management team to obtain specific advice.

The general Stadium number (07 3331 5000) was also operational during normal business hours as was the Stadium Security number (07 3331 5168) after hours. All calls logged by Call Centre operators were responded to by a return call from Stadium staff immediately.

4.2 Concert Hotline & SMS Report

Comments/Complaints received via the Call Centre and the SMS reporting system are as follows

Nature of Complaint	QTY
Patron Behaviour	3
Noise Complaint	1
Security	1
Smoking	1
TOTAL	6

4.3 Noise Monitoring

Protest Engineering conducted initial modelling to assist with the noise control measures during planning for the concert.

As part of this process, Protest Engineering monitored noise levels at 15 minute intervals from inside the Stadium at the mixing console which was located approximately 50 metres from the front of house loudspeakers. External noise monitoring was also conducted at the following locations as required by the Major Sports Facilities Regulation 2014:

- 8 / 5 Petrie Terrace, Brisbane
- 15 Plunkett Street, Paddington
- 36 Judge Street, Brisbane
- 26 Princess Street, Brisbane*
- 31 Isaac Street, Milton

*Monitoring was conducted at 28 Princess Street due to the property not available for logger placement for this concert.

Protest Engineering measured noise in compliance with the Environmental Protection Agency's Noise Measurement Manual. During the events (including rehearsal and sound test), the Stadium ensured that one of its employees or contractors:

(a) was present at the sound mixing desk (or in direct communication with the Sound Engineer for the event and was able to exercise ultimate control on the noise levels from the sound amplification equipment;

(b) could conduct and communicate with all of the acoustic consultants conducting the monitoring of the noise levels from the events; and

(c) was able to report sound levels to Stadium Management at all times

The MSFA Regulation requires that noise monitoring is carried out in accordance with the Queensland Government Environmental Protection (Noise) Policy 1997 (EPP Noise). Therefore the results of the noise monitoring analysis have been compared with the noise emission criteria specified schedule 3A "Acoustic Quality Compliance for Special Events" from this policy.

Protest Engineering noted that the internal Stadium criteria was complied with throughout the concert and during sound checks.

The Noise Monitoring report from this event is outlined within this document ***(Attachment B)***

4.4 Noise Issue Management

Whenever feedback was received regarding sound levels from the event, staff from Protest Engineering were requested to be dispatched to the locations (where possible) to obtain readings. This feedback may have come from a number of sources including social media, Hotline calls or emails to the venue.

There was one noise complaint received from Manning Street, Milton however records show there was no exceedances.

There were no exceedances at the external monitoring points.

5.0 Transport and Traffic Management

5.1 Suncorp Stadium Traffic Management Plan

The venue has a number of levels for the Traffic Management Plan based on the expected crowd size:

NO PLAN:	0 – 5,000 patrons
LOW PLAN:	5,001 – 15,000 patrons
MEDIUM PLAN:	15,001 – 28,000 patrons
HIGH PLAN:	28,001 – 45,000 patrons
MAJOR PLAN:	45,001+ patrons

Due to the crowd size for the event, the MAJOR Traffic Management Plan was implemented.

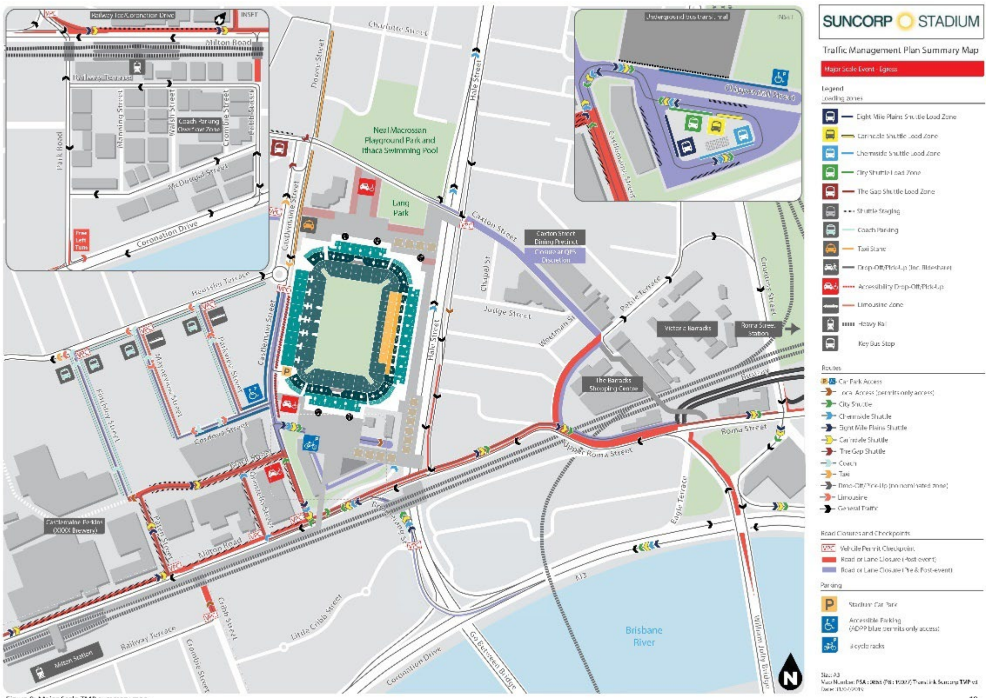


Figure 9: Major Scale TMP summary map

5.2 Transport Services

5.2.1 Free Public Transport

As is standard practice for all events held at Suncorp Stadium, patrons were able to utilise free public transport from midday through to the last service of the day. This includes access to scheduled services as well as the dedicated event specific services implemented for the event.

These services are valid on all Transport for Brisbane bus services as well as any Queensland Rail City Network trains. Air train services and bus services not operated by Transport for Brisbane are not included.

A Transport Plan for a crowd of up to 49,999 was implemented for this event.

5.2.2 Buses

Transport for Brisbane ran dedicated services for the event for a period of 3 hours prior to the commencement of the main act.

Clearance time after the event was 1 hour.

5.2.3 Trains

Due to the spread of patrons on arrival, regular city network services are able to manage the crowd numbers without additional services , however with special rail services to all regions were running for approximately 1 hour after the event.

5.2.4 Taxis

The demand for taxi services after the concert was extremely high, resulting in a longer than normal exit from the patrons. Staff are on location to direct patrons to other public transport services however the crowd demographics suggested a higher propensity for the use of taxi services.

There were extensive delays post concert given the demographic and the numbers catching cabs rather than using the public transport system. All attempts were made to obtain additional taxis however there were still delays of patrons waiting for taxis. Staff suggested to patrons to utilize the regular public transport services or head towards the city to catch rides however many chose to remain and wait.

The venue will continue to work with QPS and Security to protect the integrity of the Traffic and Transport Plans which are designed to minimize traffic in the area for the benefit of local residents and the dispersal of patrons. This includes continuing to manage the access of ride sharing services.

5.2.5 Ride Share

As is standard policy, the venue does not provide dedicated ride sharing drop off and pick up locations.

5.2.6 Limousines

Limousine parking in Parkview and Mayneview Streets was monitored closely and in line with the usual arrangements for other major Stadium events. Barriers and Security guards were located at either end of Blaxland Street to ensure it was not used for drop-offs and pickups and Queensland Police were present in the street post-event to control noise and patron behavior. Limousine take-up for this event was very low.

5.2.7 Stadium Parking

Due to the nature of the event, internal stadium car parking is extremely limited with only Car Park 3 available for parking. This is generally limited to operational requirements only or VIP Parking needs.

6.0 Security and Crowd Management

Police and security numbers factor in crowd size, demographics and risk levels

6.1 General Admission (GA) Queuing

Due to the General Admission nature of the floor for this concert, services were installed on the Northern Plaza to help facilitate the comfort and service of patrons who chose to arrive and queue early for the event.

Services included:

- Marquees to provide shading for patrons
- Free water stations
- Power for phone charging
- Staff to provide information and updates as well as early wristbanding
- Stadium-instigated numbering system

Patrons were suggested to leave the area after obtaining their position number to allow them the ability to shower, stretch legs etc, and return at a stipulated time to commence the queue process.

Prior to gates opening, patrons were then queued in number order to enter the gate areas for entry to turnstiles.

Early arrivals (by time):

GA PATRON ARRIVALS (Cumulative)	QTY
10:30am	54
11:30am	131
12:30pm	176
1:30pm	266
2:30pm	405

Patrons were escorted to gates at approximately 15:30.

6.2 Patron Behaviour

Staff continually monitor patron behaviour throughout the event and reported a number of incidents as outlined below:

NATURE OF INCIDENT	QTY
Evictions – Intoxication	11
Evictions – Patron Behaviour	15
Refusals of Entry	2
Arrests – Behaviour	3
Move On Directions	3
TOTAL	34

At the end of the concert, two female patrons were arrested for biting and spitting at security as well as physically assaulting a guard with a mobile phone. A male patron was also arrested for assaulting a Police officer.

6.2 Risk Management

6.2.1 Emergency Management

The stadium applied its standard Risk Management procedures to all aspects of the concert and prepared contingency plans on additional risks associated with the specific nature of the concert involving emergency field evacuation and sever weather. As each concert is different, plans are revised based on the stage layout. Neither plan needed to be activated.

6.2.2 Risk Management - Field Patrons

The venue in association with Risk Management team assess the field names based on a number of factors including:

- Total linear width of egress pathways (in both normal and emergency mode)
- Stage configuration
- Risks of emergency associated with pyrotechnics and special effects
- Crowd Demographics

Catering, Toilet and merchandise facilities are made available at field level for patrons on the floor to avoid the need to go back to the main concourse. Additional messaging on the screens were also provided to assist in providing information to patrons.

All patrons from the floor are directed up to the main concourse (Level 3 from the field) for egress. To ease congestion on concourse levels some aisle ways from the floor are blocked to avoid converging crowds. Patrons are directed to all open aisles. In

addition the mid tier LED screens were also used to deliver directional messaging for patrons to direct to their nearest egress point.

6.2.3 Medical and First Aid

First Aid and Medical staff were on site for the duration of the event to assist with any patron injuries/health issues. There were a total of 45 first aid incidents, none of which were deemed as major health issues.

Most incidents were heat related (eg fainting, nausea, headache).

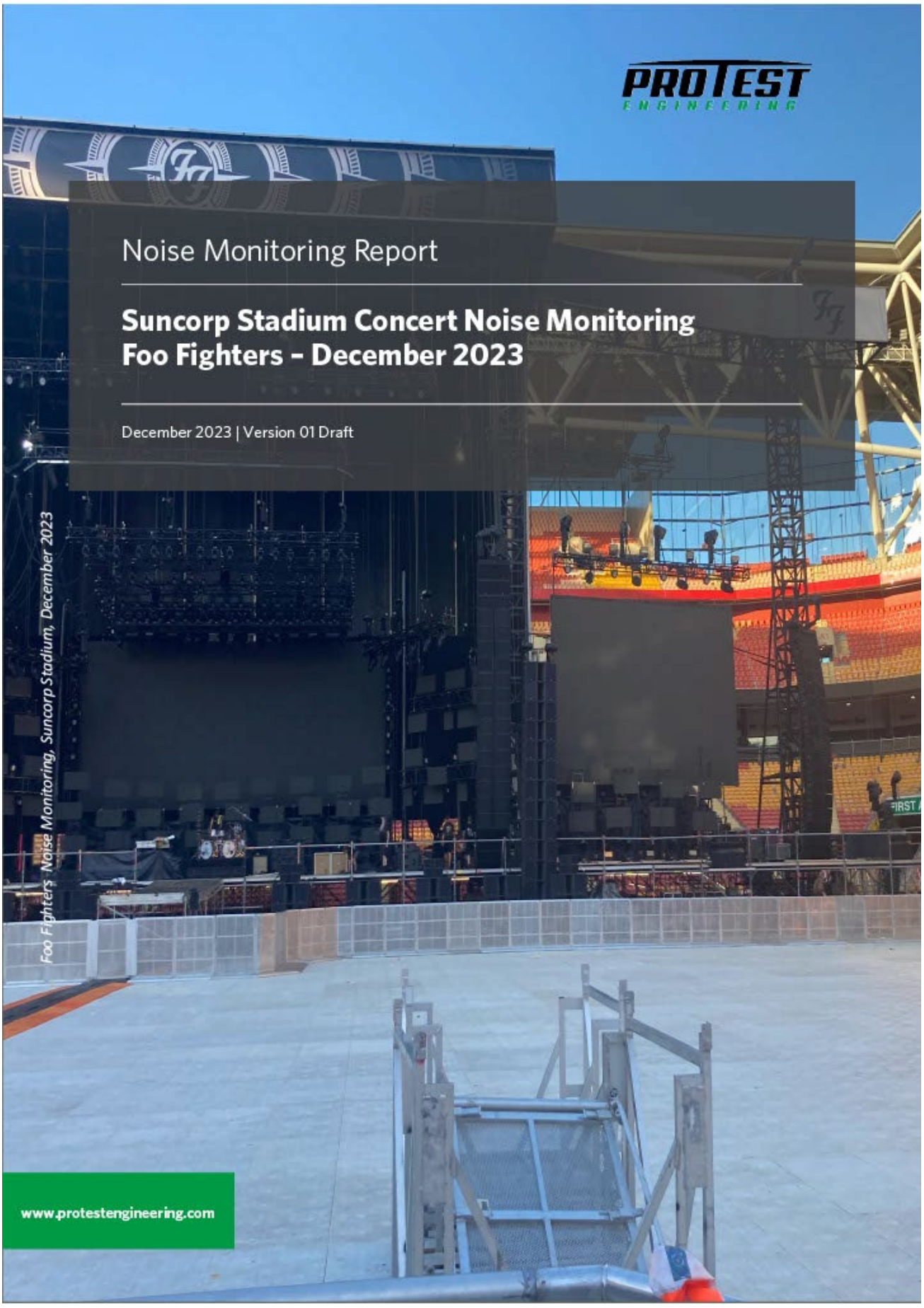
There were no medical transports for the event.

ATTACHMENT A: Patron Feedback

A1 Post Event Complaints and Compliments

NATURE OF FEEDBACK	QTY
Complaint – Ticketing/Restricted View Seats	1
Complaint – Staff	1
Complaint – Catering	1
Compliment – Staff Customer Service	1

ATTACHMENT B: Acoustic Consultant Noise Monitoring Report


PROTEST
ENGINEERING
Noise Monitoring Report
Suncorp Stadium Concert Noise Monitoring
Foo Fighters – December 2023
December 2023 | Version 01 Draft
Foo Fighters Noise Monitoring, Suncorp Stadium, December 2023
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REPORT DETAILS

Unique Document Identification	
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Client	Suncorp Stadium
Client Contact	Graeme Kan

Protest Office Details	
Location	Brisbane
Address	Level 3, 159 Coronation Drive, Milton, Qld, 4064
Telephone	(07) 5568 0180
Email	protestengineering.com
Web	www.protestengineering.com

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Document Approval

Author

Liam McDonagh
Senior Acoustic Engineer

Reviewed By

Julie McDonagh
Associate Director - Acoustics

EXECUTIVE SUMMARY

This report summarises the results of noise monitoring carried out during the Foo Fighters line and soundchecks on 11 December and line, soundchecks and Concert on 12 December 2023 at Suncorp Stadium, in accordance with Clause 8 of the Major Sports Facilities Authority (MSFA) Amendment Regulation (No.1) 2006, under the Sports Facilities Act 2001.

Noise monitoring was carried out at the five residential sites surrounding the stadium as specified in Clause 7 of the MSFA Regulation and at a location representative of the mixing console located within the stadium bowl.

The MSFA Regulation requires that noise monitoring is carried out in accordance with the Queensland Government Environmental Protection (Noise) Policy 1997 (EPP Noise). Note that subsequent revisions of the EPP Noise do not affect the requirements of the MSFA Regulation. Therefore, the results of the noise monitoring analysis have been compared with the noise emission criteria specified schedule 3A "Acoustic Quality Compliance for Special Events" from this policy.

The analysis has found that the internal stadium criterion was complied with throughout the concert and sound checks for all time periods.

Measured noise levels associated with the sound checks and concerts complied with the EPA "Special Events" external noise criteria of LAeq,15min 70 dB(A) at all the nominated external monitoring locations throughout the sound checks and the concerts for all time periods.

We understand that there was one noise complaint recorded during the concert period as follows:

- 18 Manning Street, Milton, (630 metres southwest of the Stadium - Observations were recorded at the front of the property at ground level which faces towards the stadium. Measurements were not recorded due to high levels of ambient noise masking the concert noise. However, given that the measured level at this location was 52 dB(A) for a recent Motley Crue concert, and the internal noise levels in the stadium were generally lower or similar to those measured for that concert, it is likely that the concert noise at that location would have been 50 to 55 dB(A) which is well below the criteria of 70 dB(A).

It was noted that there was light east to north easterly wind conditions, during the line, sound checks and concert which are likely to have influenced the noise emissions from the stadium to sound louder than usual to the west and southwest of the stadium, and quieter than usual on the eastern side.

Additional attended spot check measurements were recorded during the concert at 14 Hall Street for additional information and these were found to be compliant with the external noise criteria for the duration of the monitored time periods. Calculating the inside to outside noise reduction at this location and applying this to the internal noise levels throughout the sound checks and concert indicates that compliance was achieved at this location at all times on 11 & 12 December. Refer to Table 3 for a record of the attended noise monitoring carried out during the concert.

GLOSSARY OF TERMS

A-weighted Level	As per dB(A) defined below.
Ambient Sound	Of an environment: the all-encompassing sound associated with that environment, being a composite of sounds from many sources, near and far.
Background Sound Level	The average of the lowest levels of the sound levels measured in an affected area in the absence of noise from occupants and from unwanted external ambient noise sources.
Decibel, dB	Unit of acoustic measurement. Measurements of power, pressure and intensity may be expressed in dB relative to standard reference levels.
L90, L10 etc.	A statistical measurement giving the sound pressure level which is exceeded for the given percentile of an observation period, i.e., L90 is the level which is exceeded for 90 percent of an observation period. L90 is commonly referred to as a basis for measuring the background sound level.
LAbg, T	The A-weighted background sound level measured over a time interval T.
LAeq, T	Equivalent continuous A-weighted sound pressure level. This is the value of the A-weighted sound pressure level of a continuous steady sound that, within a measurement time interval T, has the same A-weighted sound energy as the actual time-varying sound.
Sound Pressure Level, Lp, dB, of a sound	A measurement obtained directly obtained using a microphone and sound level meter. Sound pressure level varies with distance from a source and with changes to the measuring environment. Sound pressure level equals 20 times the logarithm to the base 10 of the ratio of the r.m.s. sound pressure to the reference sound pressure of 20 microPascals.
Sound Power Level, Lw, dB of a source	Sound power level is a measure of the sound energy emitted by a source, does not change with distance, and cannot be directly measured. Sound power level of a machine may vary depending on the actual operating load and is calculated from sound pressure level measurements with appropriate corrections for distance and/or environmental conditions. Sound power level is equal to 10 times the logarithm to the base 10 of the ratio of the sound power of the source to the reference sound power of 1 picoWatt.

1. REFERENCED DOCUMENTS

The following documents have been referenced during preparation of this report.

- "MSFA Amendment Regulation (No.1) 2006" – Queensland Government.
- Environmental Protection and Other Legislation Amendment Act (No. 2) 2008 (EPOLA No. 2)
- "Environmental Protection (Noise) Amendment Policy 1997" (Reprint No.3) as part of the Environmental Protection Act 1994 – Queensland Environmental Protection Agency.
- "Suncorp Stadium, State of Origin 2003 - Noise Impact Assessment Report" – Hyder Consulting
- "Suncorp Stadium, Robbie Williams Concert - Noise Impact Assessment Report" – Hyder Consulting
- "Suncorp Stadium, The Police Concert - Noise Impact Assessment Report" – Hyder Consulting
- "Suncorp Stadium, Andre Rieu Concert – Noise Impact Assessment Report" – Hyder Consulting
- "Suncorp Stadium, U2 Concert – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Bon Jovi Concert – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Justin Bieber Concert – Noise Monitoring Report" - Cardno.
- "Suncorp Stadium, Worlds Biggest Orchestra World Record Attempt – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Taylor Swift Concert 2013 – Noise Monitoring Report" - Cardno).
- "Suncorp Stadium, Bon Jovi Concert 2013 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Eminem Concert 2014 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, One Direction Concert 2015 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Foo Fighters Concert 2015 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Ed Sheeran Concert 2015 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Taylor Swift Concert 2015 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Coldplay Concert 2016 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Justin Bieber Concert March 2017 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Paul McCartney Concert December 2017 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Foo Fighters Concert January 2018 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Ed Sheeran Concerts March 2018 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Bon Jovi Concert December 2018 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Phil Collins Concert January 2019 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, U2 Concert November 2019 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Queen Concert February 2020 – Noise Monitoring Report" - Cardno
- "Suncorp Stadium, Guns 'n' Roses Concert November 2022 – Noise Monitoring Report" – Cardno
- "Suncorp Stadium, Elton John Concert January 2023 – Noise Monitoring Report" – Stantec
- "Suncorp Stadium, Red Hot Chilli Peppers Concert January 2023 – Noise Monitoring Report" – Stantec
- "Suncorp Stadium, Ed Sheeran Concerts March 2023 – Noise Monitoring Report" – Stantec
- "Suncorp Stadium, Paul McCartney Concert November 2023 – Noise Monitoring Report" – Protest Engineering.
- "Suncorp Stadium, Motley Crue & Def Leppard Concert November 2023 – Noise Monitoring Report" – Protest Engineering.

2. NOISE EMISSION CRITERIA

It should be noted that the EPP (Noise) 1997, which forms part of the EPA 1994, has been superseded by the EPA 2019. However, the Environmental Protection and Other Legislation Amendment Act (No. 2) 2008 (EPOLA No. 2), allows for the previous criteria contained within the EPA 1994 to be retained for special events at Suncorp Stadium, in accordance with the MSFA Regulation (No 1) 2006. Therefore, the following assessment EPA 1994 criteria applies to amplified concert event noise emissions from the Stadium:

2.1. State Government EPA Criteria

The EPA Criteria for "Special Events" is as follows:

Schedule 3A - Acoustic quality compliance for special events:

Acoustic quality compliance levels

1) *An acoustic quality compliance level is authorised for a special event if the level is equal to or less than at least 1 of the following.*
   - a) *100 dB(A) Leq, measured at 15-minute intervals, measured at a point 50m directly in front of the front edge of the performance stage.*
   - b) *70 dB(A) Leq, measured at 15-minute intervals, measured at the locations mentioned in the Major Sports Facilities Regulation 2002, schedule 2, section 7(1).*
2) *To remove any doubt, it is declared that subsection (1) is satisfied even if the level measured is greater than 1 of the levels stated in the subsection.*

MSFA Regulation (No 1) 2006

'7 Noise

1) *During the event, including rehearsals and sound tests, the operator must ensure that the noise levels from the event are continuously monitored by a suitably qualified acoustic consultant at, or as near as practicable to, the following locations –*
   - *8.5 Petrie Terrace, City*
   - *15 Plunkett Street, Paddington*
   - *[1]36 Judge Street, City*
   - *26 Princess Street, City*
   - *31 Isaac Street, Milton*
2) *The operator must ensure the taking of the noise measurements complies with the Environmental Protection Agency's Noise Measurement Manual.*
3) *During the event, including rehearsals and sound tests, the Authority must ensure that 1 of its employees or its agent –*
   - a) *is present at the sound mixing desk for the event and is able to exercise ultimate control on the noise levels from the sound amplification equipment; and*
   - b) *can conduct and communicate with all of the acoustic consultants conducting the monitoring of the noise levels from the event.*

Notes:

(1) The original monitoring location in this area was 105 Hale Street. However, an alternative, nearby location has subsequently been selected. It was found from previous concerts, that 105 Hale Street was not an ideal monitoring site given the high levels of traffic noise incident on the site from Hale Street. The traffic noise was found to affect the monitored levels, resulting in difficulty in determining compliance. Therefore, 36 Judge Street was selected as being close to the original location but further away from Hale Street, and therefore, less affected by road traffic noise.

3. NOISE MONITORING METHODOLOGY

3.1. Noise Monitoring Locations

Continuous noise monitoring was conducted within the stadium bowl to determine whether internal noise levels complied with MSFA criteria. External noise monitoring was also conducted at the following locations as required by the MSFA Regulation:

- *8.5 Petrie Terrace*
- *15 Plunkett Street*
- *36 Judge Street*
- *26 Princess Street.*
- *31 Isaac Street*

The above external locations relative to the stadium are shown in Appendix A.

Continuous noise monitoring was also conducted within the stadium bowl to provide correlation with external noise levels.

3.2. Monitoring Methodology

The event noise monitoring was conducted to provide a co-ordinated set of noise level data at the five MSFA external locations and inside the stadium. Noise level loggers were installed at locations 1, 2, 3, 4, 5, and inside the stadium bowl at a location representative of the usual location at the mixing console.

The Foo Fighters production comprised of a traditional stage layout at the northern end of the stadium with the mixing desk located approximately 40 metres from the front of house speakers. Monitoring was undertaken at this location as per the legislation.

Manual noise measurements were recorded using sound level meters at locations 1 to 5, inside the stadium, and at an additional location 7 for information purposes to confirm the results of the noise loggers, identify any extraneous noise sources not associated with stadium noise emissions, and determine whether the criteria were being exceeded inside or outside the stadium.

There were line and sound checks carried out during the day of the concert providing intermittent audible noise emissions externally between 15:00 and 18:00 on 11 December and 12:00 and 22::30 on 12 December 2023.

The general schedule was as follows:

Monday, 11 December 2023

15:00 to 18:00	Backing tracks through the PA / Line checks / Soundcheck Foo Fighters

Tuesday, 12 December 2023

11:45 to 15:00	Backing tracks through the PA / Line checks / House PA / Soundcheck Support Bands
17:00 to 17:30	Support - Hot Milk
18:00 to 18:45	Support - The Chats
19:30 to 22:25	Main Act - Foo fighters

3.3. Instrumentation

Appendix B lists the instrumentation used for the noise monitoring. Calibration of all instrumentation was conducted before and after the measurement session with no significant (less than + / - 0.4 dB(A) drift in calibration noted.

All noise logger clocks were synchronised with the noise logger installed in the stadium to ensure a coherent set of measurement data.

3.4. Weather Conditions

Appendix C lists the weather conditions during the measurement session. The weather conditions were fine with no rain. There was a slight breeze on 11 & 12 December from an east to northeast direction during the morning, afternoon, and the concert.

4. NOISE MONITORING RESULTS

The results from the noise monitoring for 11 & 12 December 2023 are shown graphically in Figure 1 to Figure 5. The charts show the following information:

- Noise levels measured in the stadium in terms of LAeq, 15min, on 11 & 12 December or the equivalent continuous noise level during each 15-minute sample period.
- Noise levels at each external location in terms of LAeq, 15min noise levels on 11 & 12 December.
- The LAeq,15 min relevant noise goal.

Figure 1: External Noise Measurements - Site 1 - 6/8 Petrie Terrace

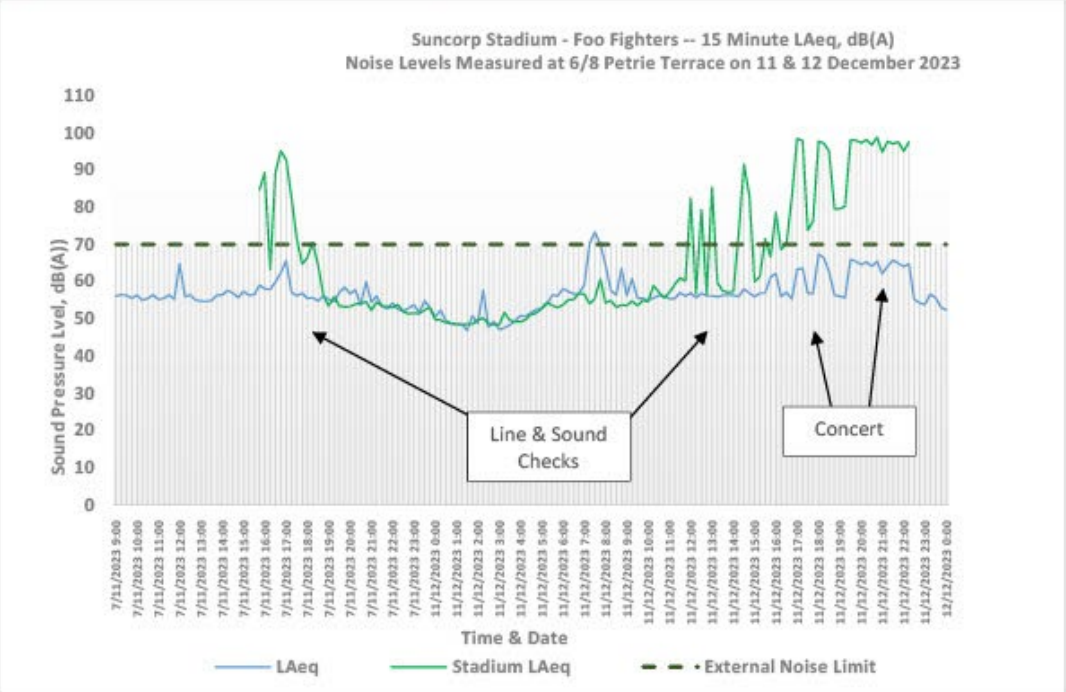


Figure 2: External Noise Measurements - Site 2 – 15 Plunkett Street

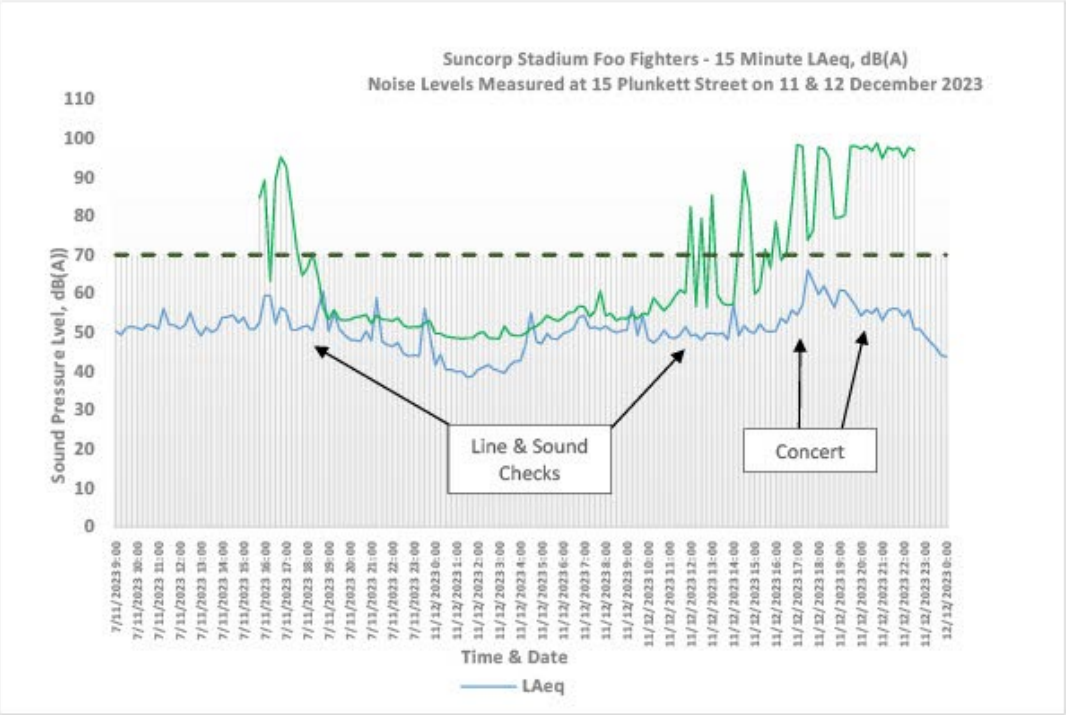
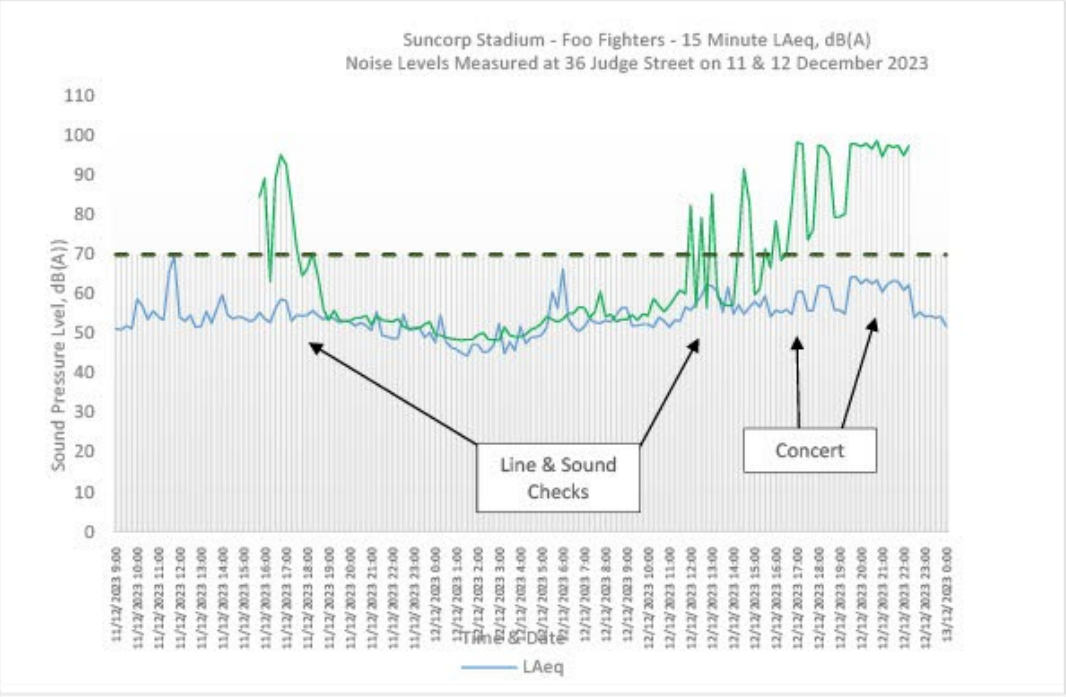


Figure 3: External Noise Measurements - Site 3 – 36 Judge Street



Suncorp Stadium Noise Monitoring
Foo Fighters, December 2023

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Figure 4: External Noise Measurements - Site 4 – 26 Princess Street

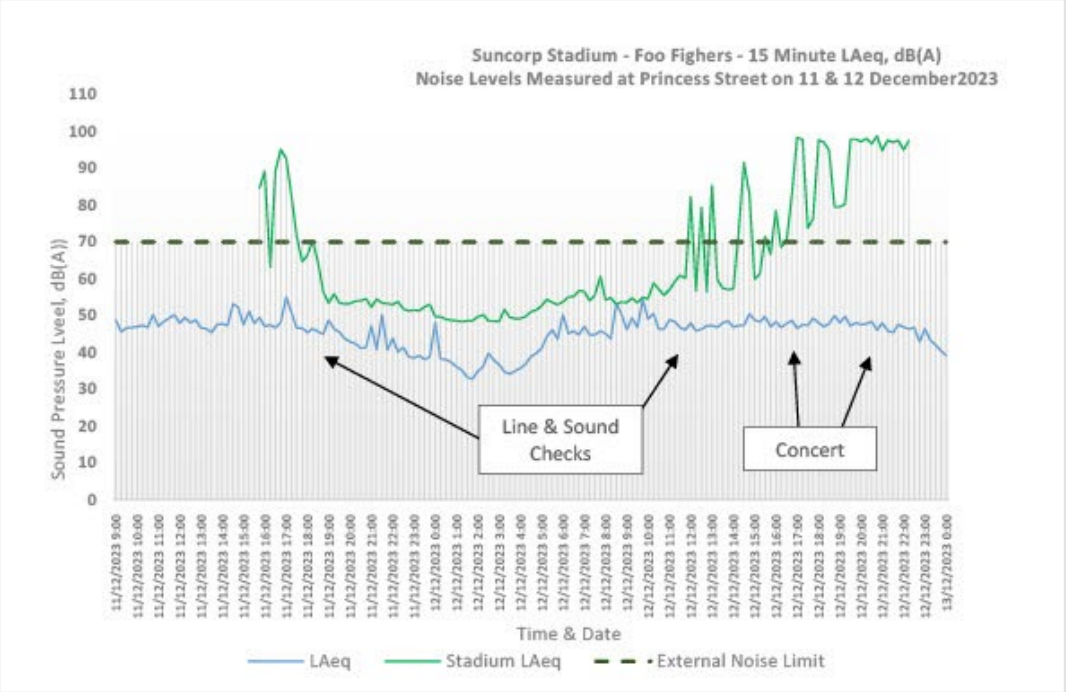
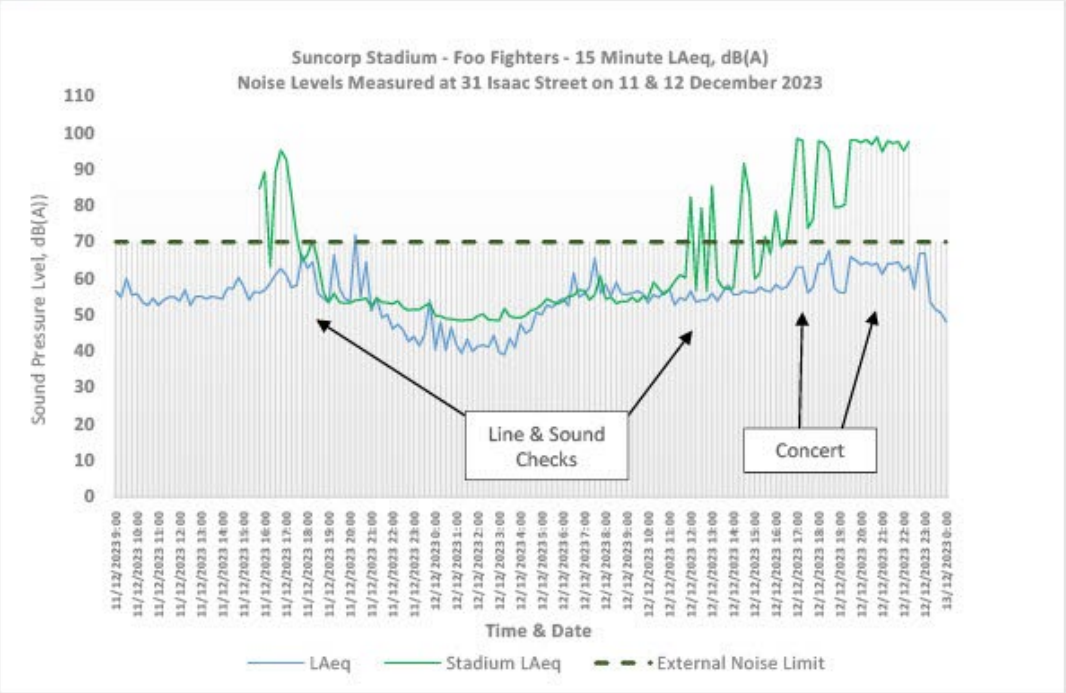


Figure 5: External Noise Measurements - Site 5 – 31 Isaac Street



Suncorp Stadium Noise Monitoring
Foo Fighters, December 2023

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The above graphs indicate that the noise levels measured externally, were generally independent of the sound check noise levels inside the stadium at Princess and Plunkett Street but affected by the Stadium noise level at the locations closest to the Stadium (Locations 1, 3 and 5).

The concert was audible at all locations during the sound checks and the concert. There were loud levels of ambient noise noted at some of the locations that included mechanical plant, fauna and local traffic, which were not associated with noise emissions from the stadium, particularly at Petrie Terrace, Princess and Isaac Streets.

It was noted that there was light east to north easterly wind conditions, during 11 & 12 December. This may have slightly increased the noise emissions from the stadium to the west and south of the stadium and slightly decreased the noise to the east during the sound checks and concert.

The unattended measurements recorded were observed to vary considerably as can be seen in Figure 3-1 to Figure 3-5. This was generally observed to be due to concert noise, during the soundchecks and the concert, at the locations closest to the stadium.

However, additional ambient conditions that could have potentially affected the external noise measurements were noted at each site and are detailed below in Table 2-1.

Table 1: Summary of External Site Measurement Conditions

Site		Measurement Conditions
1	8.5 Petrie Tce	Road traffic on Petrie Terrace and Hale Street was the primary sources of ambient noise during the day with some aircraft flyovers. Crowd noise from the stadium and the concert and sound checks (primarily guitar, vocals and bass) were clearly audible during the soundcheck and concert and were the primary source of noise once the roads in the surrounding area had been closed.
2	15 Plunkett St	The concert was clearly audible at times. Vocals were faintly audible during the sound check and the concert. Crowd was inaudible. Ambient noise consisted of regular traffic pass-bys on Dowse Street and local road traffic on Plunkett Street and some ambulances on Given Terrace. Distant traffic on Given Terrace was the main source on noise in the absence of local traffic.
3	36 Judge St	Concert and sound checks were clearly audible at this location. Distant hum of traffic from Hale Street and Caxton Street, aircraft and helicopter flyovers, ambulances on Hale Street and car pass-bys on Judge Street were the main noise sources in addition to concert noise from the stadium. Some continuous plant noise from nearby licensed premises was also continuously audible throughout the monitoring period.
4	26 Princess St	During the sound check and concert, concert and crowd noise would have been faintly audible based on the measured levels and the weather conditions. The primary source of noise at this location is distant traffic noise and car pass-bys on Princess Street.
5	31 Isaac St	Concert and sound checks were clearly audible at this location. Road traffic noise on Isaac Street and Council trucks deploying road closure barriers, were the main source of noise during the concert with one or two aircraft / helicopter flyovers and ambulance sirens during the sound checks.

5. ANALYSIS

Table 2 summarises the unattended measured (logger) LAeq, 15min noise levels for the line, sound checks and concert. Measurements were recorded at all times during the sound checks and concert when music was audible outside the Stadium.

The LAeq, 15min event noise levels reported below in Table 2 are based on an analysis of the noise logger data measured at the monitoring locations. Supplementary manual measurements were also carried out at these locations (Table 3) and generally agreed with those recorded by the loggers. There were some differences due to the slightly different time periods and dynamic nature of the shows.

Table 2: Continuous Logger $L_{Aeq,15min}$ Noise Levels, 11 & 12 December 2023, Line & Sound Checks & Concert

Date	Time (recorded Previous 15 Minutes)	Sound Checks & Concert					
		(6) Stadium	(1) Petrie Terrace	(2) Plunkett Street	(3) Judge Street	(4) Princess Street	(5) Isaac Street
Criteria		100	70	70	70	70	70
11/12/2023	16:00	85	59	53	55	50	56
11/12/2023	16:15	89	58	60	54	47	57
11/12/2023	16:30	63	58	60	53	48	59
11/12/2023	16:45	89	60	52	56	47	61
11/12/2023	17:00	95	62	57	59	48	63
11/12/2023	17:15	93	66	55	58	55	61
11/12/2023	17:30	83	57	51	53	51	58
11/12/2023	17:45	72	56	51	55	47	58
11/12/2023	18:00	65	57	51	55	47	66
11/12/2023	18:15	67	56	52	55	45	63
11/12/2023	18:30	71	56	51	56	47	65
11/12/2023	18:45	64	55	56	55	46	56
12/12/2023	12:00	60	56	52	57	46	54
12/12/2023	12:15	82	57	49	56	48	57
12/12/2023	12:30	57	56	50	58	46	54
12/12/2023	12:45	79	57	48	60	46	54
12/12/2023	13:00	57	56	50	63	47	54
12/12/2023	13:15	85	56	50	62	47	56
12/12/2023	13:30	60	56	50	61	47	54
12/12/2023	13:45	58	56	50	55	48	56
12/12/2023	14:00	57	56	48	62	49	58
12/12/2023	14:15	57	56	58	55	47	56
12/12/2023	14:30	73	56	49	57	47	56
12/12/2023	14:45	92	58	52	55	47	57
12/12/2023	15:00	83	57	50	57	51	56
12/12/2023	15:15	60	56	50	58	49	56
12/12/2023	15:30	61	57	52	57	48	58
12/12/2023	15:45	72	57	50	60	50	57
12/12/2023	16:00	67	61	50	54	47	56
12/12/2023	16:15	79	62	50	56	48	58
12/12/2023	16:30	69	56	54	55	47	57
12/12/2023	16:45	70	57	53	56	48	58
12/12/2023	17:00	83	55	56	55	49	60
12/12/2023	17:15	98	63	55	61	47	63
12/12/2023	17:30	98	64	57	61	48	63
12/12/2023	17:45	74	57	66	56	47	56
12/12/2023	18:00	76	57	63	56	49	58

Date	Time (recorded Previous 15 Minutes)	Sound Checks & Concert					
		(6) Stadium	(1) Petrie Terrace	(2) Plunkett Street	(3) Judge Street	(4) Princess Street	(5) Isaac Street
Criteria		**100**	**70**	**70**	**70**	**70**	**70**
12/12/2023	18:15	98	67	60	62	48	64
12/12/2023	18:30	97	66	62	62	47	64
12/12/2023	18:45	95	63	59	62	48	68
12/12/2023	19:00	80	56	56	56	50	57
12/12/2023	19:15	80	56	61	56	48	56
12/12/2023	19:30	80	56	61	55	50	56
12/12/2023	19:45	98	66	59	64	47	66
12/12/2023	20:00	98	65	57	64	48	65
12/12/2023	20:15	97	65	54	63	48	64
12/12/2023	20:30	98	65	56	64	48	64
12/12/2023	20:45	97	64	55	63	48	64
12/12/2023	21:00	99	66	56	64	46	64
12/12/2023	21:15	95	62	53	61	48	61
12/12/2023	21:30	98	64	56	63	46	64
12/12/2023	21:45	97	66	56	63	45	64
12/12/2023	22:00	98	65	56	63	48	65
12/12/2023	22:15	95	64	54	61	47	62
12/12/2023	22:30	98	65	56	62	46	64

Table 3: Manually Recorded LAeq,15min Noise Levels, 11 & 12 December 2023 – Line & Sound Checks & Concert

Date	[1]Time (recorded Previous 15 Minutes)	Sound Checks & Concert						
		(6) Stadium	(1) Petrie Terrace	(2) Plunkett Street	(3) Judge Street	(4) [2]Princess Street	(5) Isaac Street	(7) Hall Street
Criteria		**100**	**70**	**70**	**70**	**70**	**70**	
11/12/2023	16:09	91	-	-	-	50	-	-
11/12/2023	16:15	-	-	-	56	47	-	-
11/12/2023	16:30	62	-	-	55	48	-	-
11/12/2023	16:45	89	-	-	58	47	-	-
11/12/2023	17:00	95	-	-	61	48	-	-
11/12/2023	17:15	92	-	-	60	55	-	-
11/12/2023	17:30	83	-	-	55	51	-	-
11/12/2023	17:45	72	-	-	56	47	-	-
11/12/2023	18:00	63	-	-	56	47	-	-
12/12/2023	11:45	-	-	-	56	-	-	-
12/12/2023	12:00	66	-	-	59	46	-	-
12/12/2023	12:15	-	-	-	58	48	-	-
12/12/2023	12:30	81	-	-	58	46	54	-
12/12/2023	12:45	78	-	-	-	46	51	-
12/12/2023	13:00	73	53	53	-	47	55	-
12/12/2023	13:15	85	-	53	-	47	60	-
12/12/2023	13:30	57	-	53	-	47	54	-
12/12/2023	13:45	67	-	56	-	48	-	-
12/12/2023	14:00	57	-	53	-	49	-	55
12/12/2023	14:15	-	-	53	-	47	56	-
12/12/2023	14:30	61	-	53	-	47	56	-
12/12/2023	14:45	86	-	56	-	47	56	-
12/12/2023	15:00	90	-	54	-	51	55	-

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Date	[1]Time (recorded Previous 15 Minutes)	Sound Checks & Concert						
		(6) Stadium	(1) Petrie Terrace	(2) Plunkett Street	(3) Judge Street	(4) [2]Princess Street	(5) Isaac Street	(7) Hall Street
Criteria		100	70	70	70	70	70	
12/12/2023	15:15	85	-	-	-	49	-	-
12/12/2023	15:30	-	-	-	-	48	54	-
12/12/2023	15:45	-	-	-	-	50	-	-
12/12/2023	16:00	-	-	-	-	47	-	-
12/12/2023	16:15	-	-	-	-	48	-	-
12/12/2023	16:30	-	-	-	-	47	-	-
12/12/2023	16:45	-	-	-	-	48	-	-
12/12/2023	17:00	-	-	-	-	49	-	-
12/12/2023	17:15	98	63	62	-	47	-	-
12/12/2023	17:30	97	62	64	-	48	-	-
12/12/2023	17:45	73	54	59	-	47	-	-
12/12/2023	18:00	-	55	-	-	49	-	-
12/12/2023	18:15	95	69	-	-	48	63	-
12/12/2023	18:30	97	65	-	-	47	63	-
12/12/2023	18:45	95	62	-	-	48	-	-
12/12/2023	19:00	79	54	-	-	50	-	-
12/12/2023	19:15	79	-	-	-	48	-	53
12/12/2023	19:30	81	-	-	57	50	53	-
12/12/2023	19:45	98	-	-	66	47	65	-
12/12/2023	20:00	98	-	-	66	48	64	-
12/12/2023	20:15	-	-	-	64	48	62	-
12/12/2023	20:30	97	-	-	64	48	-	-
12/12/2023	20:45	97	-	54	66	48	-	-
12/12/2023	21:00	99	-	54	65	46	-	-
12/12/2023	21:15	94	59	-	-	48	-	55
12/12/2023	21:30	98	63	-	-	46	65	55
12/12/2023	21:45	97	64	-	-	45	62	-
12/12/2023	22:00	97	-	53	-	48	-	-
12/12/2023	22:15	95	-	54	62	47	-	-
12/12/2023	22:30	98	-	55	65	46	-	-

Notes:

1. *Approximate time period for comparison purposes. The 15-minute measurement period was generally within 1-4 minutes of the stated times.*
2. *The values for Princess Street were obtained in real time on concert day from a remote access noise logging station. Therefore, these results have been added to the attended noise measurement table for information.*

We understand that one complaint was received on the concert day, during The Chats set from a receiver in Milton.

The above results indicate that all internal measurements recorded within the stadium for the duration of the event, complied with the 100 dB(A) EPA "Special Events" internal LAeq,15 min noise criteria, for all time periods. Measured noise levels associated with the sound checks and concerts complied with the EPA "Special Events" external noise criteria of LAeq,15min 70 dB(A) at all external locations throughout the sound checks and the concert for all time periods.

It was noted that there was a slight breeze on 11 December from an east to north easterly direction during the pre-concert day sound check and similar wind conditions from the north east on the day of the concert, which is likely to have influenced the noise emissions from the stadium to sound louder than usual to the west of the stadium during the soundchecks and concert and quieter on the eastern side.

6. CONCLUSION

Noise emissions were monitored in accordance with the specified MSFA Regulation and EPP (Noise) 1997 requirements.

Concert noise emissions from Suncorp Stadium measured during the Foo Fighters line checks, sound checks and concert on 11 & 12 December 2023, indicated compliance with the MSFA Regulation for all the external noise monitoring sites for all time periods.

Noise emissions from the Foo Fighters production inside the stadium complied with the internal EPP criteria for the duration of the concert, sound check and line checks at the stadium internal monitoring location.

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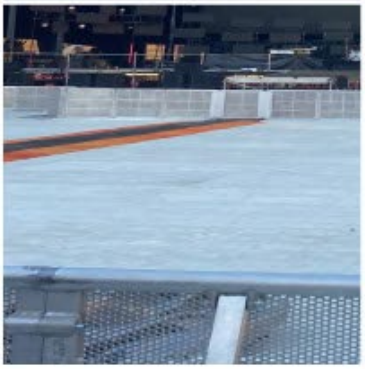
APPENDIX A

External Measurement Locations



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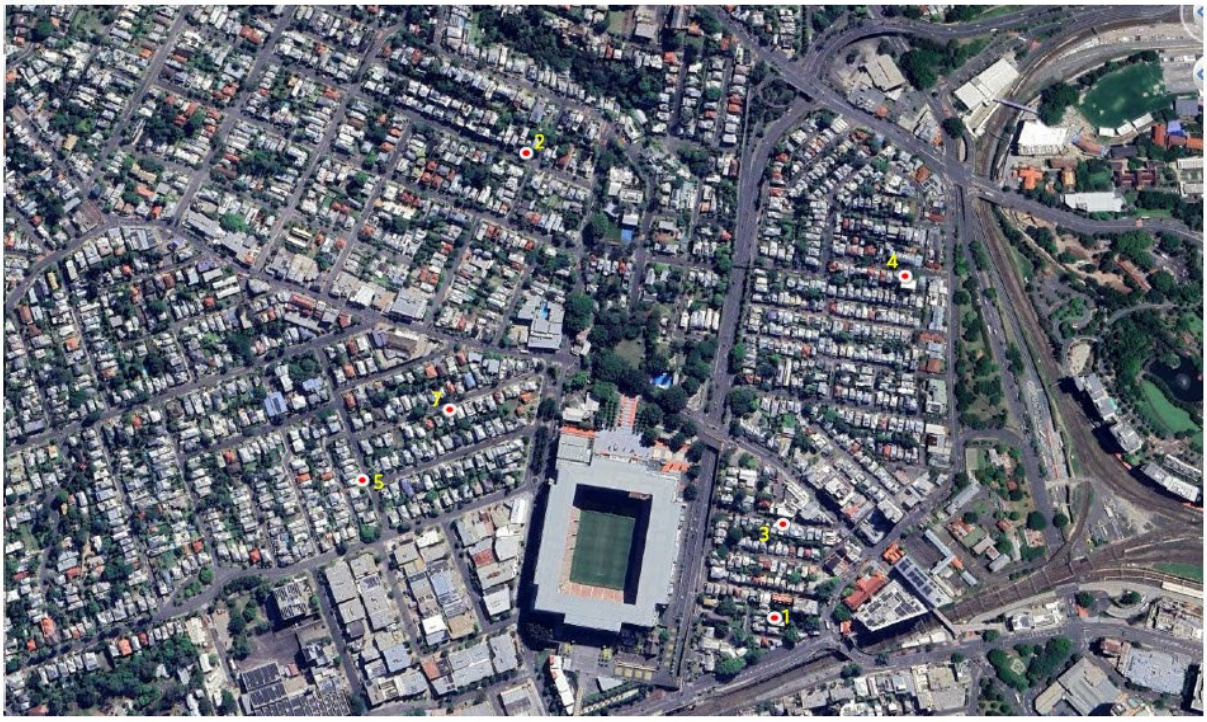
APPENDIX A

Figure A1 External Measurement Locations



B

APPENDIX B
Instrumentation

Suncorp Stadium Noise Monitoring
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APPENDIX B

Table B1 Instrumentation

Site		Noise Logger	Serial No.	Sound Level Meter	Serial No.
Sound Level Meters & Loggers					
-	Stadium Bowl	Rion NL-21	01277353	Rion NA-28	00722662
1	6/8 Petrie Terrace	Rion NL-21	01277351	Rion NL-21	00276274
2	15 Plunkett Street	Rion NL-21	00877035	Rion NA-43	00430292
3	36 Judge Street	Rion NL-21	00776884	Rion NL-21	00276274
4	26 Princess Street	Rion NL-43	00230099	Rion NL-43	00230099
5	31 Isaac Street	Rion NL-21	00365350	Rion NL-43	00430292
7	14 Hall Street	-	-	Rion NL-43	00430292
Calibrators					
		Rion NC-75	34835117		
		Rion NC-75	34835116		

All items- of equipment used for this project hold current NATA Calibration certificates.

APPENDIX C
Weather Conditions

Suncorp Stadium Noise Monitoring
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APPENDIX C

Table C1: Monitoring Weather Conditions

Date & Time	Temp °C	Humidity %	Wind Speed m/s	Wind Direction	Rain 10 min mm
11/12/2023 0:00	23.7	72	6	E	0
11/12/2023 0:30	23.7	73	7	E	0
11/12/2023 1:00	23.6	70	9	E	0
11/12/2023 1:30	23.4	71	9	E	0
11/12/2023 2:00	23.0	72	6	E	0
11/12/2023 2:30	23.3	72	4	E	0
11/12/2023 3:00	23.3	71	4	E	0
11/12/2023 3:30	22.9	72	4	E	0
11/12/2023 4:00	22.4	74	4	ESE	0
11/12/2023 4:30	22.1	74	2	ESE	0
11/12/2023 5:00	22.6	69	6	E	0
11/12/2023 5:30	23.6	64	4	ESE	0
11/12/2023 6:00	23.0	62	6	E	0
11/12/2023 6:30	24.3	58	6	E	0
11/12/2023 7:00	25.1	57	7	E	0
11/12/2023 7:30	25.0	60	13	ENE	0
11/12/2023 8:00	25.7	56	15	ENE	0
11/12/2023 8:30	27.0	51	17	ENE	0
11/12/2023 9:00	27.5	45	11	ENE	0
11/12/2023 9:30	28.1	42	13	E	0
11/12/2023 10:00	27.3	45	11	ENE	0
11/12/2023 10:30	27.6	45	11	ENE	0
11/12/2023 11:00	27.7	49	13	ENE	0
11/12/2023 11:30	28.1	48	15	ENE	0
11/12/2023 12:00	28.4	43	11	ENE	0
11/12/2023 12:30	28.6	41	13	ENE	0
11/12/2023 13:00	29.0	36	7	ENE	0
11/12/2023 13:30	29.0	42	13	ENE	0
11/12/2023 14:00	28.8	45	13	ENE	0
11/12/2023 14:30	28.2	47	13	ENE	0
11/12/2023 15:00	28.0	46	11	NE	0
11/12/2023 15:30	27.4	48	11	ENE	0
11/12/2023 16:00	27.8	47	11	ENE	0
11/12/2023 16:30	27.7	49	11	ENE	0
11/12/2023 17:00	27.1	53	13	ENE	0
11/12/2023 17:30	26.5	55	13	ENE	0
11/12/2023 18:00	25.9	55	11	ENE	0
11/12/2023 18:30	25.3	57	11	E	0
11/12/2023 19:00	24.8	62	7	E	0
11/12/2023 19:30	24.4	63	7	E	0
11/12/2023 20:00	24.1	66	6	E	0

Date & Time	Temp °C	Humidity %	Wind Speed m/s	Wind Direction	Rain 10 min mm
11/12/2023 20:30	23.9	68	6	E	0
11/12/2023 21:00	24.1	68	6	ESE	0
11/12/2023 21:30	24.3	67	6	E	0
11/12/2023 22:00	24.0	67	6	E	0
11/12/2023 22:30	23.4	67	6	E	0
11/12/2023 23:00	23.4	64	4	ESE	0
11/12/2023 23:30	23.5	65	4	E	0
12/12/2023 0:00	23.7	64	2	E	0
12/12/2023 0:30	23.6	65	4	ESE	0
12/12/2023 1:00	23.4	64	2	ESE	0
12/12/2023 1:30	23.8	64	4	E	0
12/12/2023 2:00	23.9	64	4	E	0
12/12/2023 2:30	23.7	66	2	E	0
12/12/2023 3:00	22.9	64	2	E	0
12/12/2023 3:30	23.2	64	0	N	0
12/12/2023 4:00	23.2	63	0	N	0
12/12/2023 4:30	23.3	64	4	ESE	0
12/12/2023 5:00	22.8	67	2	SE	0
12/12/2023 5:30	23.2	69	2	ESE	0
12/12/2023 6:00	24.4	65	4	SE	0
12/12/2023 6:30	25.2	56	6	E	0
12/12/2023 7:00	25.4	53	7	ENE	0
12/12/2023 7:30	25.4	56	7	SE	0
12/12/2023 8:00	25.0	62	9	SE	0
12/12/2023 8:30	26.3	58	6	ESE	0
12/12/2023 9:00	28.3	51	11	E	0
12/12/2023 9:30	27.6	44	7	ENE	0
12/12/2023 10:00	28.0	44	7	NE	0
12/12/2023 10:30	29.9	40	9	ENE	0
12/12/2023 11:00	29.1	41	11	NE	0
12/12/2023 11:30	28.4	46	7	ENE	0
12/12/2023 12:00	28.9	44	11	E	0
12/12/2023 12:30	29.1	46	13	ENE	0
12/12/2023 13:00	29.7	45	11	ENE	0
12/12/2023 13:30	28.6	48	15	E	0
12/12/2023 14:00	28.7	48	13	ENE	0
12/12/2023 14:30	28.5	48	13	ENE	0
12/12/2023 15:00	28.6	48	15	ENE	0
12/12/2023 15:30	27.8	50	11	ENE	0
12/12/2023 16:00	27.7	49	11	NE	0
12/12/2023 16:30	27.6	49	17	NE	0
12/12/2023 17:00	26.9	52	13	NE	0
12/12/2023 17:30	26.5	53	13	ENE	0
12/12/2023 18:00	25.9	57	9	ENE	0

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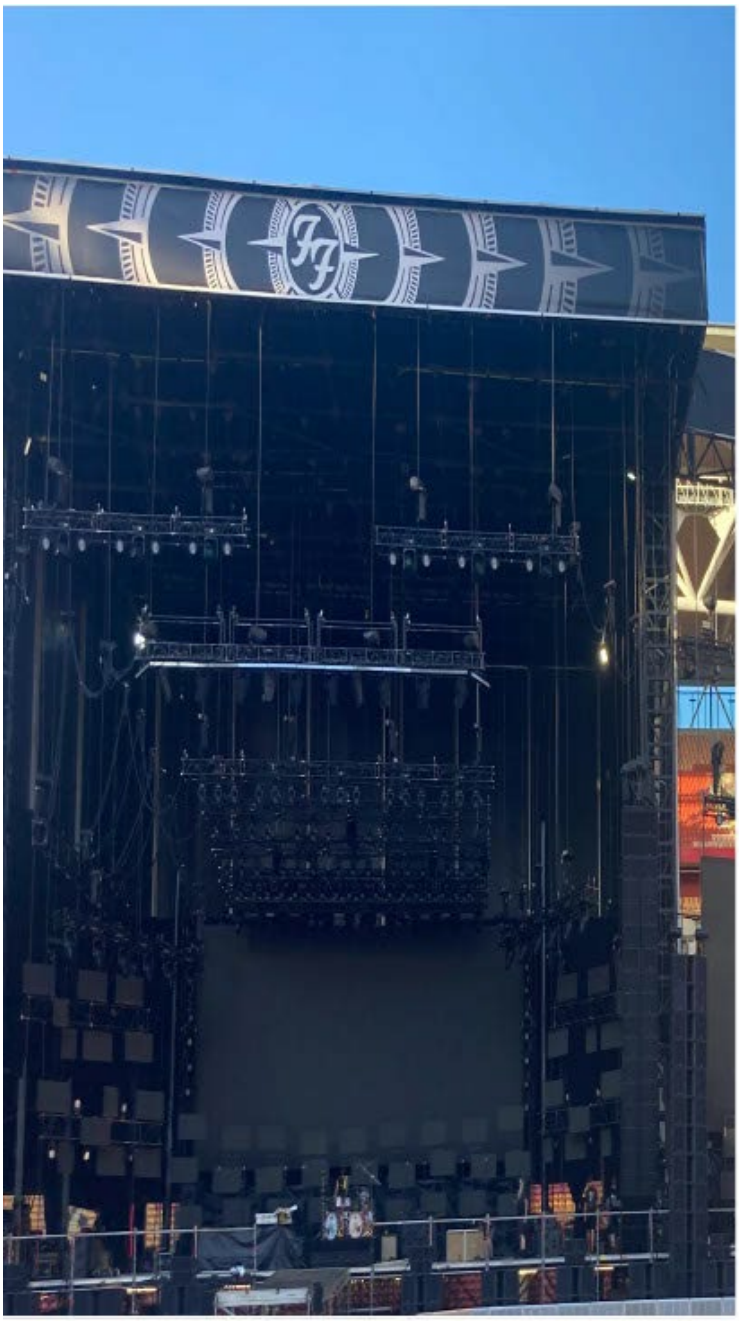
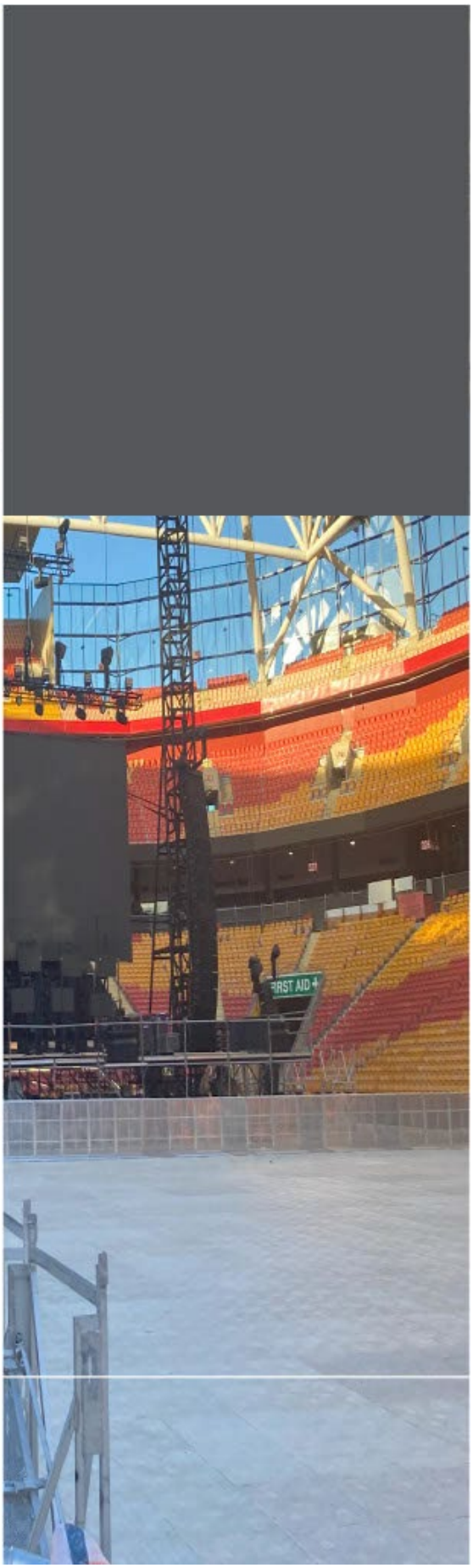
Date & Time	Temp °C	Humidity %	Wind Speed m/s	Wind Direction	Rain 10 min mm
12/12/2023 18:30	25.4	60	9	ENE	0
12/12/2023 19:00	25.2	59	11	E	0
12/12/2023 19:30	24.8	61	7	E	0
12/12/2023 20:00	24.8	62	7	E	0
12/12/2023 20:30	24.4	65	4	E	0
12/12/2023 21:00	24.3	66	6	E	0
12/12/2023 21:30	24.1	67	4	E	0
12/12/2023 22:00	23.8	68	6	E	0
12/12/2023 22:30	23.5	69	4	E	0
12/12/2023 23:00	23.4	69	4	E	0
12/12/2023 23:30	23.3	69	2	ESE	0
13/12/2023 0:00	23.1	70	0	N	0





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