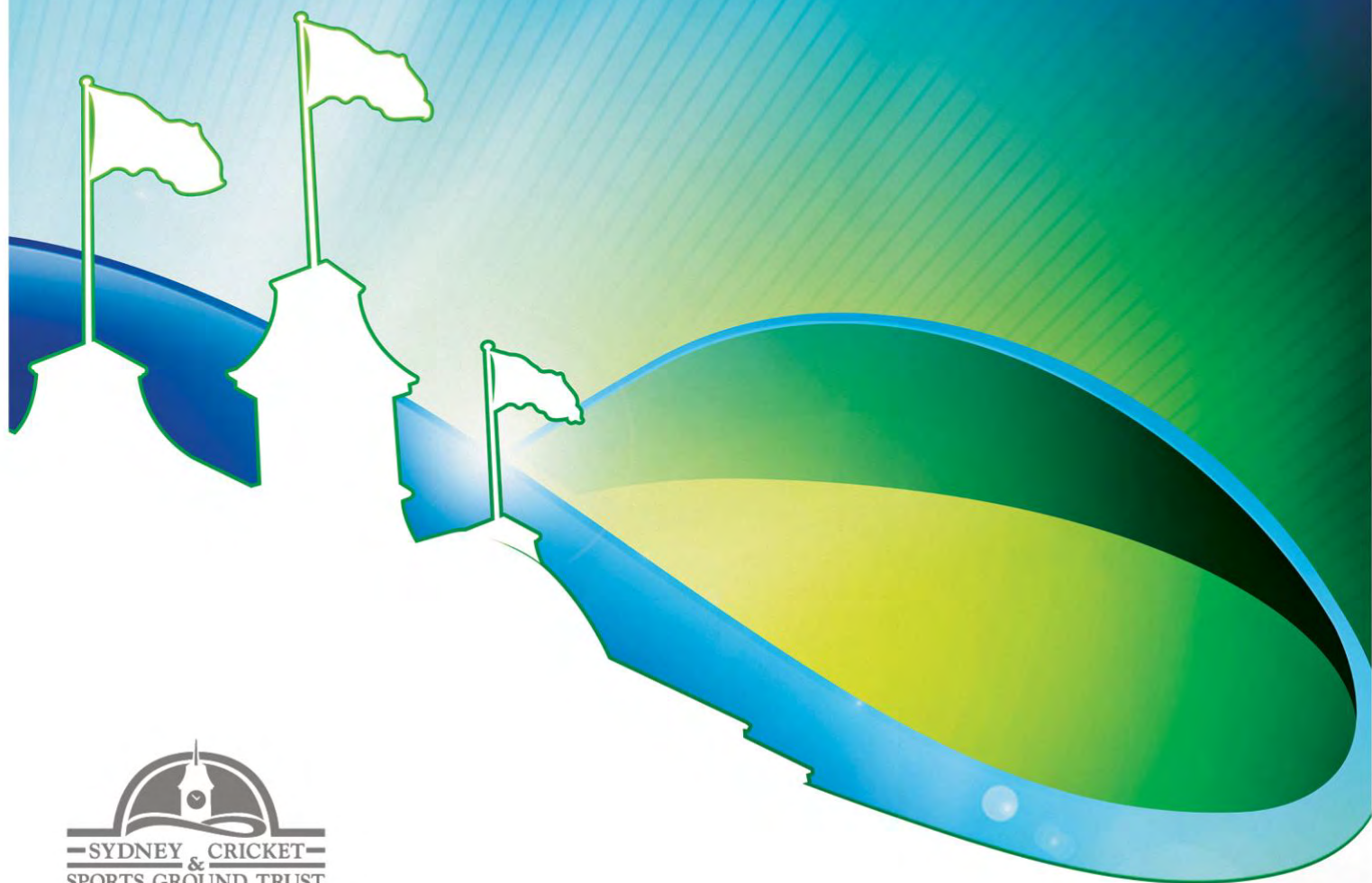

Event Management Strategy

Sydney Cricket and Sports
Ground Trust

Sydney Football Stadium

Event Management Plan



Contents

1.1	Introduction	3
1.2	Background	3
1.3	Site Description	4
1.4	Overview of Proposed Development	6
1.5	Assessment Requirements	7
2.0	Event Typology	9
2.1	Event Frequency	9
2.2	Event timing and duration	10
3.0	Operational Procedures	11
4.0	Event Day Management.....	12
4.1	Event Manager.....	12
4.2	Other Staff	12
4.3	Event Day Reporting	12
4.4	Complaints	13
5.0	Pedestrian Arrival and Entry to Stadium.....	14
5.1	Standard Events	14
5.2	Active Supporter Groups (Football).....	14
5.3	Major Events	15
5.4	Concerts	15
6.0	Stadium Egress	16
6.1	Standard Events	16
6.2	Major Events	17
6.3	Concerts	17
6.4	Double headers.....	17
7.0	Vehicle Access into the Stadium	19
7.1	Basement	19
7.2	Podium Level.....	20
7.3	Event Day Access	20
8.0	Event Access Strategy	21
9.0	Security.....	22
9.1	Event Day Security	22
10.0	Noise Management	23
11.0	Non-Event Day Operations.....	24

12.0	Emergency Response and Evacuation.....	25
12.1	Emergency Response and Evacuation Principles.....	25
12.2	Crowd Swell	25
12.3	Emergency Management Plan.....	25
12.4	Stop Play Procedure.....	26
12.5	Emergency Management.....	26
12.6	Concerts	26
13.0	Appendix A- Noise Management Plan	27

1.1 Introduction

This report supports a State Significant Development (SSD) Development Application (DA) for the redevelopment of the Sydney Football Stadium, which is submitted to the Minister for Planning pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The redevelopment is being conducted in stages comprising the following planning applications:

- **Stage 1** – Concept Proposal for the stadium envelope and supporting retail and functional uses as well as development consent for the carrying out of early works, including demolition of the existing facility and associated structures.
- **Stage 2** – detailed design, construction and operation of the stadium and supporting business, retail and functional uses.

Development consent was granted for the Concept Proposal and detailed approval to carry out early works and demolition (SSD 18_9249) by the Minister for Planning on 6 December 2018.

This report relates to the Stage 2 application and considers the detailed design, construction and operation of the new Sydney Football Stadium pursuant to the approved Concept Proposal.

Infrastructure NSW is the proponent of the Stage 2 DA.

1.2 Background

The Sydney Football Stadium (SFS) is a significant component of the sports facilities that comprise the Sydney Cricket and Sports Ground. Completed in 1988, the SFS has hosted numerous sporting events in its 30 years of operation for a number of sporting codes including football (soccer), rugby league and rugby union as well as occasional music concerts.

The NSW Stadia Strategy 2012 provides a vision for the future of stadia within NSW, prioritising investment to achieve the optimal mix of venues to meet community needs and to ensure a vibrant sports and event environment in NSW. A key action of the strategy included development of master plans for Tier 1 stadia and their precincts covering transport, integrated ticketing, spectator experience, facilities for players, media, corporate and restaurant and entertainment provision. SFS is one of three Tier 1 stadia within NSW, the others being Stadium Australia (Olympic Park) and the Sydney Cricket Ground.

To qualify for Tier 1 status, a stadium is required to include:

- Seating capacity greater than 40,000;
- Regularly host international sporting events;
- Offer extensive corporate facilities, including suites, open-air corporate boxes and other function/dining facilities; and
- Be the home ground for sporting teams playing in national competitions.

On 6 December 2018, development consent was granted for the Concept Proposal and Early Works/ Demolition stage of the SFS redevelopment (SSD 18_9249). This consent permitted the completion of demolition works on the site and established the planning and development framework through which to assess this subsequent Stage 2 application. Specifically, State Significant Development Consent SSD 18_9249 encompassed:

1. A Concept Proposal for:

- A maximum building envelope for the stadium with capacity for 45,000 seats (55,000 patrons in concert mode) and 1,500 staff.

- Urban Design Guidelines and a Design Excellence Strategy to guide the detailed design of the stadium at Stage 2.
 - General functional parameters for the design and operation of the new stadium, including:
 - Range of general admission seating, members areas, premium box/terrace, function/lounge and corporate suite options;
 - Administration offices;
 - New roof with 100% drip-line coverage of all permanent seating;
 - Flood lighting, stadium video screens and other ancillary fittings;
 - Food and beverage offerings;
 - Facilities for team, media, administration and amenity such as changing rooms, media rooms and stadium; and
 - Provision for ancillary uses within the stadium and surrounds.
 - Principles and strategies for transport and access arrangements.
 - Indicative staging of the development.
2. Detailed consent for the following works:
- The demolition of the existing SFS and ancillary structures, including the existing Sheridan, Roosters, Waratahs and Cricket NSW buildings down to existing slab level.
 - Site and construction management, including use of the existing MP1 car park for construction staging, management and waste processing, and provisions for temporary pedestrian and vehicular access management.
 - The protection and retention of Tree 125 (Moreton Bay Fig adjacent to Moore Park Road) and Tree 231-238 cluster (Hills Weeping Fig and others near Paddington Lane) and all existing street trees located outside of the site boundary, with the removal of all other vegetation within the proposed future building footprint.
 - Works to make the site suitable for the construction of the new stadium (subject to this separate Stage 2 application).

1.3 Site Description

The site is located at 40-44 Driver Avenue, Moore Park within the Sydney Cricket Ground Precinct. It is bound by Moore Park Road to the north, Paddington Lane to the east, the existing SCG stadium to the south and Driver Avenue to the west. The site is located within the City of Sydney local government area.

The site is legally described as Part Lots 1528 and 1530 in Deposited Plan 752011 and Lot 1 in Deposited Plan 205794. The site is Crown Land, with the SCSGT designated as the sole trustee under the *Sydney Cricket and Sports Ground Act 1978*. The site is wholly contained within designated land controlled by the Sydney SCSGT under Schedule 2A of the *Sydney Cricket and Sports Ground Act 1978*.

In a broader context, the site is largely surrounded by Centennial and Moore Parks, the Fox Studios and Entertainment Quarter precincts and the residential suburb of Paddington. Located approximately 3 km from the Sydney CBD and approximately 2 km from Central Station, the site is

connected to Sydney's transport network through existing bus routes and will benefit from a dedicated stop on the soon to be completed Sydney CBD and South East Light Rail.

The locational context of the Site is shown in Figure 1, whilst the site boundaries and existing site features are shown in Figure 2.



Figure 1: Regional site context



Figure 2: Site area and local context

1.4 Overview of Proposed Development

The application represents the next phase in the SFS redevelopment. It seeks consent for the detailed design, construction and operation of the new stadium as 'Stage 2' of the redevelopment, which includes:

- Construction of a new stadium with up to 45,000 seats (55,000 capacity in concert-mode), including playing pitch, grandstands, sports and stadium administration areas, food and drink kiosks, corporate facilities and all other aspects of a modern stadium;
- Operation and use of the stadium and surrounding site area for a range of sporting and entertainment events;
- Vehicular and pedestrian access and circulation arrangements, including excavation to deliver a partial basement level for storage, internal loading and servicing at the playing pitch level;

- Reinstatement of the MP1 car park following the completion of construction, including enhanced vehicle rejection facilities and direct vehicular connection to the new stadium basement level;
- Public domain improvements within the site boundary, including hard and soft landscaping, to deliver a range of publicly accessible, event and operational areas;
- Provision of new pedestrian and cycling facilities within the site;
- Signage, including building identification signage, business identification signage and a wayfinding signage strategy; and
- Extension and augmentation of physical infrastructure/ utilities for the development within the site.

The proposed development is consistent with the approved Concept Proposal pursuant to State Significant Development Consent SSD 9249.

1.5 Assessment Requirements

This report is provided to meet the assessment requirements of conditions of consent for SSD949, as well as the Secretary's Environmental Assessment Requirements (SEARs) issued for the project. An overview of the requirements is as follows:

Table 1: Conditions of Consent

Requirement	Where Addressed
C55. The future development application must include:	
a) an Events Management Plan, including, but not limited to, the type, frequency and duration of the proposed events;	Section 2
b) an Event Access Strategy including, but not limited to: i) measures to monitor patron event-day travel mode behaviour; ii) assesses public transport accessibility and needs for events; and iii) measures to minimise patrons parking on the streets surrounding the stadium and the Moore Park precinct.	Sections 5-8

Table 3: SEARs

Requirement	Where Addressed
3. Operation	
Provide details of the proposed events and activities at the Sydney Football Stadium and surrounding precinct, including the estimated number, type (i.e. full capacity, half capacity and double headers) and duration (including set up and set down) of events and activities per year, including maximum spectator numbers.	Section 2.

Provide details of strategies to mitigate risks at points of crowd swell (i.e. pedestrian crossing / refuge points, circulation around the stadium, and approach and departure points).	Section 8 and 12
Provide details of stadium emergency and evacuation procedures, including a draft Emergency Response and Evacuation Principles, which addresses issues of public and crowd safety and behaviour management.	Section 12

2.0 Event Typology

Sydney Football Stadium (SFS) will be a multi-purpose outdoor venue that will have the ability to host a variety of events such as:

- Rugby League- capacity of up to 45,000 patrons
- Rugby Union- capacity of up to 45,000 patrons
- Football (Soccer)- capacity of up to 45,000 patrons
- Concerts- capacity of up to 55,000 patrons

The expected crowd forecast is determined upon release of sporting season schedules. The Sydney Cricket and Sports Ground Trust (SCGT) then monitor and update projections weekly as can attendance can fluctuate depending on the following factors:

- The popularity of the code,
- Team performance,
- Distance of the stadium from the fan base,
- Weather,
- Ticket pricing
- Other concurrent events
- Day of the week
- Time of the year i.e. School Holidays

SCGT will follow the same event planning process of engaging with all key stakeholders in the lead up to an event. This includes (as required) Transport Management Centre, Centennial Parklands and Moore Park Trust and City of Sydney.

For double header events (where events are held at both SFS and SCG) there will be an increase in communications to patrons, advising them of the content across both stadiums, public transport information, any significant changes across the precinct and encouraging them to arrive early.

Concert events will have a maximum capacity of 55,000 patrons and the patron attendance numbers will be reliant on ticket sales.

2.1 Event Frequency

The former SFS maintained a restriction on the number of concert events via a Noise Prevention Notice issued by the EPA. The Notice restricted concert events to a maximum of 6 per year with an average of 4 per year over any 5 year period. This restriction will be maintained in the redeveloped SFS.

The former SFS maintained no annual restriction on the number of sporting events hosted. It is proposed that this continue for the redeveloped SFS. The SCGT desire to maintain flexibility in the operations for sporting events to assist the promotion of emerging events including the rise in women's professional sport (SuperW, WNRL, W-League) as well as international football (soccer) fixtures.

2.2 Event timing and duration

The timing and duration for events is consistent with the former Sydney Football Stadium as follows:

Descriptor	Time limits			Maximum length of event
	Not to commence before	Not to finish after	If delayed outside of the Trust's control, may continue till	
Sporting events	8:00 AM	10:30 PM	11:00 PM	-
Concerts	10:00 AM	10:30 PM	11:00 PM	5 hours
Rehearsals	10:00 AM	7:00 PM	-	Kept to absolute minimum
Sound tests	10:00 AM	7:00 PM	-	Kept to absolute minimum
Other outdoor event with sound amplification – days preceding working days	10:00 AM	8:00 PM	-	-
Other outdoor event with sound amplification – days not preceding working days	10:00 AM	10:30 PM	-	-

3.0 Operational Procedures

The operational procedures will be determined and finalised prior to the completion and operation of the stadium. This document provides an outline strategy which addresses the following aspects:

- Patron Arrival and Departure
- Vehicle Access
- Security
- Noise Management
- Emergency response and evacuation
- Other operational details specific to a particular event

The Operational Procedures will vary depending on the category of event. There are three main event categories that the SCGT will use for events at the SFS:

- Standard Events – expected attendance of up to 36,000
- Major Event – expected attendance greater than 36,000 or unique events, such as day long events with multiple matches, which are deemed to require additional overlay.
- Concert – expected attendance of up to 55,000.

4.0 Event Day Management

4.1 Event Manager

The SCG Trust Event Manager is responsible for all event day operations, reporting to the General Manager on Duty. All departments report to the Event Manager on any issues or requests. The Event Manager, together with the SCG Trust General Manager – Events, will make the final decision on any event related issues. The only exception to this rule is Emergency Management, which is managed by the Chief Warden in conjunction with NSW Police.

The Event Manager will lead an Event Day Briefing for all Customer Service Supervisors, Team Leaders and Security Supervisors. Representatives from departments working at the event will also attend this briefing. The brief will provide key staff with information regarding the event day operations.

The Event Manager is the main point of contact for the Sporting Partner/Promoter throughout the event. They will conduct a short de-brief with the Sports Partner/Promoter at the end of the event to discuss any key issues that may have arisen. A detailed event debrief will also be conducted with the Sporting Partner/Promoter during the week following the event.

The Event Manager is responsible for opening and closing the venue for the event. During an event the Event Manager liaises with the SCGT Precinct Manager who works closely with Centennial Parklands and Moore Park Trust, TMC, Transport for NSW and NSW Police during peak periods of ingress and egress.

The SCGT Precinct manager will provide regular updates to the Event Manager throughout the event. Anti-social behaviour is managed through the SCGT Security team in conjunction with NSW Police. The Event Manager is a central part of these communications, ensuring all parties are working cohesively and any updates in these areas are reported back to the control room, where all incidents are logged and affected parties informed.

4.2 Other Staff

SCGT Customer Service staff play a key role in assisting with wayfinding and managing crowds. The SCGT have a dedicated team of staff to manage Driver Avenue and Moore Park Road queuing both pre & post event. The SCGT staff are assisted by NSW Police in crowd management as required. Event Day staff are briefed to report any suspected anti-social behaviour to the control room where the security team can monitor on camera and escalate to authorities if required.

4.3 Event Day Reporting

The SCG Trust use event day reporting software to log all event day communication, information and issues.

4.4 Complaints

Complaints during an event will be collected via email, phone or through the SCGT app. Complaints will be actioned through the control room as follows:

Issue	Action	Escalation
Anti-social behaviour	Advise onsite security staff to investigate if within precinct.	If behaviour escalates or is outside precinct- advise NSW Police
Illegal parking	Advise complainant of City of Sydney out of hours number or call City of Sydney direct.	Report to onsite NSW Police if the issue is causing a traffic/safety issue.
Crowd swell	Advise onsite security staff and monitor through CCTV	
Noise	Advise event manager and investigate noise monitoring system to ensure operation is within limits.	

5.0 Pedestrian Arrival and Entry to Stadium

Each sporting partner/ event has a different arrival pattern with different requirements. Depending on the event, some patrons may arrive early to queue for seats whilst other event patrons may arrive closer to the start time. The SCGT Event Manager will manage the expectations on a case by case basis, working with key stakeholders to ensure the venue and precinct are prepared from a transport/temporary overlay/staff perspective.

The SCG Trust will develop patron arrival plans for the SFS which will depend on the type of event. These plans will be based on:

- Type of event
- Length of event
- Expected crowd attendance
- Past event arrival history and public transport usage

The main points of entry to the precinct for pedestrians will be:

- Moore Park Steps off Driver Avenue
- Fig Tree Place off Moore Park Road
- Busby's Corner off Moore Park Road

Once in the precinct, all patrons will undergo security screening before entry to the venue.

5.1 Standard Events

For standard sporting events patrons will access the venue via the main ticketing gates around the external concourse of SFS:

- South West Corner – Public
- Western Concourse – SCG Trust Members, Corporates and Media
- North West Corner – Public
- Eastern Concourse – Public and Corporate
- Western Basement – Corporate

5.2 Active Supporter Groups (Football)

Limited football events at SFS will require overlay to manage Active Supporter Groups. This will be done on a case by case basis depending on the teams playing.

Where required, football events such as Sydney FC against Western Sydney Wanderers (WSW), will include a specific a patron arrival plan to accommodate the Football Club marches to the SFS. This patron arrival plan will include:

- Timing
- Route – where each group will be leaving from
- Cross over of the groups to their access points

- Sydney FC march access via the northern stairs on Driver Avenue to the North West Entry
- WSW march access via SCG Gate A and the SCG Plaza to the South West Entry
- Security checks and overlay

The patron arrival plan will be developed in consultation with all stakeholders including:

- NSW Police
- TMC
- Centennial Parklands and Moore Park Trust
- Sydney FC
- WSW

5.3 Major Events

In addition to the patron arrival plan required for standard events, major events may require an overlay solution for patron arrival due to the event organisers bespoke requirements such as extended security. As these requirements vary by event and change over time, they will need to be dealt with on a case by case basis at the time. Any such overlay solutions will be developed in close consultation and co-ordination with the appropriate stakeholders. If there are any impacts outside of the SCGT boundary then adjacent landowners will be consulted.

The main entry areas would include:

- Moore Park Steps – South West
- Fig Tree Place – North West
- Busby's Corner – North East

Temporary infrastructure would be set up at these entry points within the site boundary for elements such as temporary ticketing and security check points.

5.4 Concerts

Access to the permanent seating in the stadium will be as per a Standard or Major event as described above.

Access onto the Field of Play (FOP) will be provided through a combination of the following entry points:

- North East access stairs to basement level
- North West basement access point from MP1
- South West basement access point from the SCG Precinct
- Main concourse over lower bowl to the FOP

6.0 Stadium Egress

The patron departure plan will vary depending on the event type. The departure plan may also change on event day and during the event, to accommodate needs as they arise.

The departure plan will be impacted by:

- Result on the Field of Play e.g. patrons supporting a losing team will usually leave early.
- Type of event e.g. multiple teams playing or just one match
- Length of event e.g. a full day of matches such as Rugby 7s or just one match
- Weather

The management of patron departure will be conducted during the event by the SCG Trust Event Management Team through the Venue Operations Centre (VOC) in conjunction with NSW Police.

6.1 Standard Events

Most events at SFS will fall in to this category. The departure management plan will allow for the following:

- Monitoring of cameras in the control room to identify when patrons are leaving the venue. This will include monitoring when there is a change from a small number of patrons to a large number.
- Security and Customer Service staff will be positioned around egress gates to manage patron movement.
- Collecting feedback from Security and Customer Service staff about patron movements and relaying this information to the control room.
- Whilst the patron egress numbers are low, patrons will egress via the gate turnstiles.
- When there is an identified step change in patron numbers leaving the venue, the decision will be made by the SCG Trust Event Manager to open egress doors at the SFS to allow for egress in large volumes. This decision will be made from the control room with the timing based on the departure pattern at that time.

The departure management plan for the event will consider which egress doors are to be used. This decision will be made based on the areas of the venue that are open and the ticket sales maps. This information indicates which areas patrons will be egressing from, and in what capacity.

Once SFS is in egress mode, the main points of consideration for patron management by the SCG Trust Event Manager are:

- Patron movement around the external concourse of the venue.
- Keeping the external areas of the egress staircases clear to maintain patron flow.
- Not using the SCG Plaza for egress if there is also an SCG event.

6.2 Major Events

6.2.1 Crowds over 36,000

For events where the expected crowd attendance is over 36,000 and other events as necessary, extra measures will be put in place over and above the standard event departure plan. These measures will be included in a bespoke Event Departure Plan and could include:

- Egress via the Southern end of SFS and the Bradman Noble Terrace to the SCG Precinct and Gates.
- Temporary partial or full closure of Moore Park Road as determined by NSW Police, to manage egress of large volumes of people on this pavement.

6.2.2 Multiple Events

Events which have multiple matches throughout the day will need their own patron departure plan as the patron movement is typically split into a number of different movements throughout the day depending on the event schedule.

For these events the SFS, the SCG Trust and Sporting Partner will engage with stakeholders to examine various potential scenarios and develop a bespoke plan accordingly. The plan will include all standard event plans as well as elements of major event and concert plans as required.

6.3 Concerts

Concerts have a unique egress pattern as the majority of the audience stay until the end of the concert and egress at the same time. The SCG Trust will develop a bespoke patron departure management plan for each concert.

In addition to standard event plans, the management of egress for concerts may include allowances for:

- Pre-opening all egress doors and gates 15 minutes prior to the expected finish time of the event to ensure free flowing patron egress.
- Removing queuing infrastructure or temporary overlay in egress pathways to ensure free flowing egress.
- Temporary partial or full closure of Moore Park Road as determined by NSW Police, to manage egress of large volumes of people on this pavement.
- Utilising the Basement ring road for patrons egressing off the Field of Play via the designated tractor chutes.
- Egress across the Bradman Noble Terrace. This will mainly be used for egress of patrons at the Southern end of SFS and those positioned on the Field of Play.

6.4 Double headers

SFS is a unique venue due to the close proximity of the SCG which means that there may be occasions where events are held at both venues on the same day. These are known as 'Double Headers'.

6.4.1 Frequency

The SCGT expects to host on average 2-3 double header event days per year. Double header event days have historically covered the following events:

- Cricket (SCG) and Football (SFS)
- AFL (SCG) and NRL/Super Rugby (SFS)

Double headers event days can also differentiate by timings which historically have included:

- Same event start and gate opening times
- Different event start and gate opening times

The timings for each event are individually dictated by the Sporting Partner and Governing Body.

6.4.2 Planning

In the event there is a double header event day, the SCG Trust will engage with all key stakeholders to develop an operating plan for the precinct. This will include information on:

- Event Details and Timings
- Event Arrival Plan
- Event Departure Plan
- Vehicle Access
- Precinct Operations – Moore Park Road and Driver Avenue
- Public Transport
- Car Park Operations
- Precinct and Venue Overlay
- Communication Plan including patrons and neighbours (if required)
- Key contacts

6.4.3 Shared Facilities

Under double header mode there are a number facilities shared between SFS and SCG. In this case the operating plan will cover the management of each of the below facilities:

- Access from Moore Park Road along the eastern side of SFS provides access to SCG gates as well as the Eastern gates in to SFS.
- The control room is located in the SCG and will run SFS and the SCG in a double header.
- In an emergency, the SCG Plaza may be used by the SFS for emergency egress.
- Public Transport and Car Parking facilities will be shared between both venues.

6.4.4 Precinct Ingress and Egress

A specific Patron Arrival and Departure Plan will be developed for a double header to cover both venues. This will include all expected patron movements individually as well as together, in order to identify any key areas of focus and potential issues. The plan will be developed around key event timings.

7.0 Vehicle Access into the Stadium

The SCGT will develop an event and non-event day access policy for vehicles which will be distributed to all contractors and users of SFS. All vehicles entering the stadium will be subject to security screening and will require permission to access the Stadium.

7.1 Basement

The majority of vehicles which access the SFS will come through the MP1 car park. This entry will have a security kiosk and rejection loop for unauthorised vehicles. All vehicles will be subject to security before accessing the SFS basement.

This entry provides back of house access to the basement ring road providing access to all back of house areas including:

- Team Facilities
- Main Kitchen
- Waste Facilities
- Staff Entry
- Storage Areas

The majority of vehicles will also leave the venue via the MP1 vehicle entry point.

There is an alternative vehicle entry and exit point onto Paddington Lane on the eastern side of the SFS. This will be used for emergency vehicles and for other vehicles at the discretion of security.

7.1.1 Basement Car Parking

Within the basement of the stadium are approximately 50 car parking spaces. These parking spaces will not be accessible to the public and controlled by SCGT security.

On non-event day these parking spaces will be used for staff and other operational vehicles such as deliveries. On event day they will be designated to essential operational vehicles only. This includes:

- SCGT Staff
- Emergency Services
- Broadcasters
- Waste Services
- Catering Deliveries
- Teams and Officials
- VVIP's

7.2 Podium Level

Limited vehicle access will be provided to the Podium level of the SFS. Access to this area will be controlled by security and restricted to operational vehicles such as maintenance, overlay set up and cleaning, and emergency vehicles. Access to this area will be from Moore Park Road or the SCG Plaza.

7.3 Event Day Access

On event day vehicle access to the SFS basement and podium will be restricted to essential operational vehicles only. This includes:

- SCGT Staff
- Emergency Services
- Broadcasters
- Waste Services
- Catering Deliveries
- Teams and Officials
- VVIP's

8.0 Event Access Strategy

The strategy for event access is jointly managed by the SCGT, CPMPT, TMC, TfNSW & NSW Police as part of the Moore Park Event Operations Group. The SCGT is responsible for providing these stakeholders with adequate information relating to the event to plan accordingly. Event details are distributed two weeks prior to an event and during the Moore Park Event Operations Group that meet once a month. Transport for NSW (and the TMC) manage transport needs for each event in consultation with the SCGT. This includes assistance with communications to patrons as well as the number of special event services that would be required to service an event. This is expected to include light rail timetabling once this service becomes operational.

Each stakeholder is accountable for their respective areas:

- CPMPT – Closure of Driver Ave, Traffic Control Plan in place for each event
- TMC/TfNSW – Event day transport
- NSW Police – Police staff schedules in location in designated areas

The TMC maintains an overarching Traffic Management Plan for the precinct.

During the event the SCGT Precinct Manager is in communication with TMC and provides the SCGT Event Manager with regular updates on parking figures. Post event the SCGT Precinct manager receives public transport patronage figures from TMC.

TMC are responsible for setting clearways around the precinct. The SCGT strive to minimise patron parking on streets by providing people with event day parking information and encouraging them to utilise public transport where possible. An information email is sent the day prior to the event.

The SCGT will consult with all major stakeholder to come up with a Transport and Traffic Management Plan for the redeveloped stadium. This will include:

- Temporary overlay and messaging for people driving to the Precinct. This will include a plan for messaging across Sydney with TMC.
- Promotion of walking routes from Central Station to the Precinct.
- Any requirements to implement a partial or full closure of Moore Park Road.
- Implementation of the Green Travel plan to communicate to patrons:
 - Public transport options for travel to and from the site.
 - Parking options.
 - Limitations of on-street parking in terms of timed spaces that are not suitable for event patrons and restrictions such as clearways and enforcement by local councils.
 - The need to plan their journey ahead of time.
 - Provision of the above information upon purchase of tickets.

9.0 Security

The SCGT will develop a Security Management Plan for all security policies and procedures relating to event and non-event days. This document will be specifically tailored for SFS operations. The SCGT will manage all aspects of event day security requirements at SFS as dictated by the SCGT and/or Sporting Partner/Promoter.

All security documentation will be in accordance with the following:

- SCGT Security Framework
- SCGT Security Operations Manual

9.1 Event Day Security

9.1.1 Security Check Points

Security check points will always be conducted external to the curtilage of the SFS.

For patrons there are two locations for these check points, which will depend on the venue configuration and any overlay requirements:

- Typically outside.
- For major events, at a temporary location as defined in consultation with stakeholders.

For other users such as Staff, Media, Players and Officials security check points will occur at Accreditation Access Points:

- Main Staff Entry, MP1 Access point.
- Media Entry

Each Security Check Point will include space for bag checks and wandering.

9.1.2 Terms and Conditions of Entry

The SCG Trust has existing Terms and Condition of Entry which will apply to all events at SFS. All Terms and Conditions will be displayed all entry points to the venue.

The Sporting Partner and/or Promoter will also provide their own Terms and Conditions for their events, which will additionally be displayed at all entry points.

9.1.3 CCTV

The SCG Trust operates an extensive CCTV system for both the SCG and SFS, which is done from the main security office (control room on event days) and is controlled by full time Security Guards.

10.0 Noise Management

Noise from events will be managed in accordance with the Noise Management Plan at Appendix A.

11.0 Non-Event Day Operations

During Non-Event Day the SFS precinct will be operated and controlled by the SCG Trust, including security functions as described earlier.

The removal of fences surrounding the stadium will open the site to the public. The inclusion of fitness equipment and a basketball hoop as well as the potential for a café to face the public domain and operate outside of event times will assist in site activation. This together with the SCGT staff offices and the merchandise store will enable passive surveillance of the site.

It is not expected that specific operations plans would be required for non-event day operations.

12.0 Emergency Response and Evacuation

12.1 Emergency Response and Evacuation Principles

The following principles will be employed to manage emergency response and evacuation:

- The SCGT will develop a Crowd Management Plan and Emergency Management Plan
- The SCGT will deploy area wardens and crowd control staff for each event as necessary.
- Where required NSW Police are on site, The Commander sits alongside the security commander to make public safety decisions.
- Should an ambulance or fire and rescue appliance be required and called to site, this is reported to the control room who will log the call and inform relevant parties. The Event Manager will then advise the precinct manager to ensure roads are clear and to ensure clear access to the venue. NSW Police or event security are tasked to manage crowds in or around emergency service vehicles.
- Emergencies are managed on event days by the Chief Warden & the NSW Police commander. The Chief Warden will make the call for all supervisors and key stakeholders to switch their radios over to the Emergency Channel. From here customer service and security supervisors will follow direction from the Chief Warden to manage the crowds.

12.2 Crowd Swell

Crowd swells and crowd densities are closely monitored by control room operators and supervisors. Event day staff disperse patrons around the stadium to reduce risk, provide clear information and ensure that any crowded area has protection measures in place.

To avoid crowd swell during ingress/egress, Driver Avenue is closed from 1 hour prior to gates opening until roughly 1 hour post event (or until deemed safe to re-open). Crowd conditions are monitored and managed by NSW Police who will close roads as necessary.

SFS has been designed to satisfy all necessary Australian legislation, Standards and the Green Guide. This Green Guide provides the standards and requirements for patron safety at sports grounds.

12.3 Emergency Management Plan

The SCGT has an Emergency Management Plan (EMP) in operation for the precinct. This document will be reviewed and updated to include the redeveloped SFS.

The EMP provides information and guidelines for the implementation of a systematic plan which enables the SCGT management and staff to quickly and decisively respond to an actual or potential emergency. Such an event could threaten the safety of people, cause major property or equipment damage, or disrupt operations and/or events within the precinct.

The EMP applies to the property boundary that encompasses the SCGT precinct. Whilst the area outside this boundary is not covered by the Plan, it should be noted that an evacuation of the venue and/or certain major site emergencies would impact on the adjoining locality.

Guidelines, procedures and information contained within the EMP are based upon Occupational Health & Safety Legislation, in conjunction with Australian Standard AS3745:2002 *Emergency Control Organisations for Buildings, Structures and Workplaces*. Amendments to these Emergency Response Procedures are in accordance with AS3745:2010 *Planning for emergencies in facilities*.

The EMP for SFS will cover specific plans to cover emergencies/incidents within the following categories in accordance with Australian Standard AS3745:2010 Planning for emergencies in facilities:

AS3745 Codes	Emergency Threat	
Brown	External Emergency	Extreme weather, earthquake, bushfire smoke
Red	Fire and or smoke	Internal fire or smoke
Yellow	Internal emergency	Power failure, water or sewage failure, communications failure, hazardous material
Blue	Medical emergency	Injury or illness, mass casualty
Black	Personal threat	Civil disorder, active shooter, violent person, hostage/siege, vehicle as a weapon
Purple	Bomb threat	Bomb threat, suspicious object
Orange	Evacuation	For all incidents and emergencies rapid removal of people from immediate danger

The EMP will also clearly establish emergency egress routes for the safe evacuation of SFS.

12.4 Stop Play Procedure

As part of the event planning process it is required by Sporting Partners and/or Promoters to establish a clearly documented stop play procedure for events. This will be unique to each event and its requirements.

12.5 Emergency Management

Emergency Management is managed by the Chief Warden in conjunction with NSW Police.

12.6 Concerts

Concerts will require a separate Emergency Egress Plan based on the event layout. This egress plan will include the patron departure plan for the concert.

Some concerts may require separate Emergency Management Modelling to be completed if the unique layout is not within the parameters of the design completed in accordance with the *Guide to Safety at Sports Grounds (Green Guide)*, Sports Grounds Safety Authority. This will be based on the combined capacity on the Field of Play and seating bowl. It will take in to consideration the unique layout of the stage and any other infrastructure on the Field of Play.

13.0 Appendix A- Noise Management Plan

Sydney Cricket and Sports Ground
Trust

**Sydney Football Stadium
Redevelopment**

Draft Noise Management Plan

Issue | 31 May 2019

Draft

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 259997-00




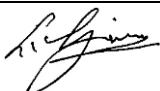


Arup Pty Ltd ABN 18 000 966 165

Arup
Level 5
151 Clarence Street
Sydney NSW 2000
Australia
www.arup.com

ARUP

Document verification

ARUP

Job title		Sydney Football Stadium Redevelopment		Job number 259997-00	
Document title		Draft Noise Management Plan		File reference	
Document ref					
Revision	Date	Filename	AC05-v1 Draft NMP.docx		
Draft 1	22 May 2019	Description	First draft		
			Prepared by	Checked by	Approved by
		Name	Mathew Simon	Glenn Wheatley	Glenn Wheatley
		Signature			
Draft 2	28 May 2019	Filename	AC05-v2 Draft NMP.docx		
		Description	Second draft		
			Prepared by	Checked by	Approved by
		Name	Mathew Simon	Glenn Wheatley	Glenn Wheatley
Issue	31 May 2019	Filename			
		Description	Issue		
			Prepared by	Checked by	Approved by
		Name	Mathew Simon	Glenn Wheatley	Glenn Wheatley
		Signature			
		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			
<p style="text-align: right;">Issue Document verification with document <input checked="" type="checkbox"/></p>					

Contents

	Page
1 Introduction	1
1.1 Development approval	1
1.2 Management objectives	1
1.3 Definitions	1
2 SFS site and surrounds	3
2.1 Noise sensitive receivers	3
3 Preventative management	7
3.1 Number of concert events	7
3.2 Time limits	7
3.3 Noise limits	7
3.4 Definition of non-compliance	8
3.5 Notification	8
3.6 Use of permanent noise monitors	10
3.7 Staff	12
3.8 Setup of sound amplification systems	13
4 Reactive management	15
4.1 Complaints handling	15
4.2 Reporting requirements	15
5 Review mechanism	17
5.1 Review of Noise Management Plan	17

1 Introduction

This Draft Noise Management Plan (DNMP) has been prepared by Arup on behalf of the Sydney Cricket & Sports Ground Trust (the Trust).

The DNMP presents a set of noise management measures, including monitoring procedures and protocol, for events at the Sydney Football Stadium (SFS).

Events are defined as entertainment activities carried out outdoors with sound amplification equipment used as part of the activity.

1.1 Development approval

This DNMP has been prepared in accordance with SSD [approval number] and is consistent with the noise assessment supporting the project application. This DNMP will require update to reflect any changes following submission and exhibition of the application.

[To be updated once SSD approval is received.]

1.2 Management objectives

The overall purpose of this NMP is to manage Event noise emissions from the SFS in accordance with the Development Consent. A balance is sought between controlling Event noise impacts on the community without restricting the operation of the SFS as an Event venue.

As a venue designated under clause 90 of the POEO General Regulation, the Sydney Football Stadium is required to have a NMP in place, which comprise the following categories of management measures:

- Preventive management
- Reactive management
- Review

The management measures in this NMP are presented in this structure.

1.3 Definitions

Terminology used in this NMP are defined in Table 1.

Table 1: Definitions

Term	Definition
Accredited Acoustic Consultant	An acoustic consultant who is a member of one or more of the following organisations; The Association of Australian Acoustical Consultants, The Australian Acoustical Society or the Institution of Engineers Australia.

Term	Definition
Concert	An event which incorporates the use of sound amplification equipment other than the SFS in-house PA system. This includes not only performances but also associated activities such as rehearsals and sound checks.
Event	An entertainment activity carried out outdoors which incorporates the use of sound amplification equipment.
Event Representative(s)	A Trust employee or agent with the responsibility and appointed authority to exercise control of noise emissions from the SFS. The representative may be an appropriately trained member of the Trust, an acoustic consultant or appointed SFS staff member appointed by the Trust.
Receivers	Noise sensitive receivers which are defined as residences, classrooms in educational institutions, hospital wards, places of worship, active and passive recreation areas, child care centres and community centres such as town halls.
The Trust	The Sydney Cricket & Sports Ground Trust
Twelve-month event period	The period of twelve months after [date of approval] and each subsequent period of 12 months.

2 SFS site and surrounds

The SFS is located at 40-44 Driver Avenue, Moore Park within the Sydney Cricket Ground Precinct. It is bound by Moore Park Road to the north, Paddington Lane to the east, the existing SCG stadium to the south and Driver Avenue to the west. The site is located within the City of Sydney local government area.

2.1 Noise sensitive receivers

The most potentially affected residential and non-residential receivers are identified in

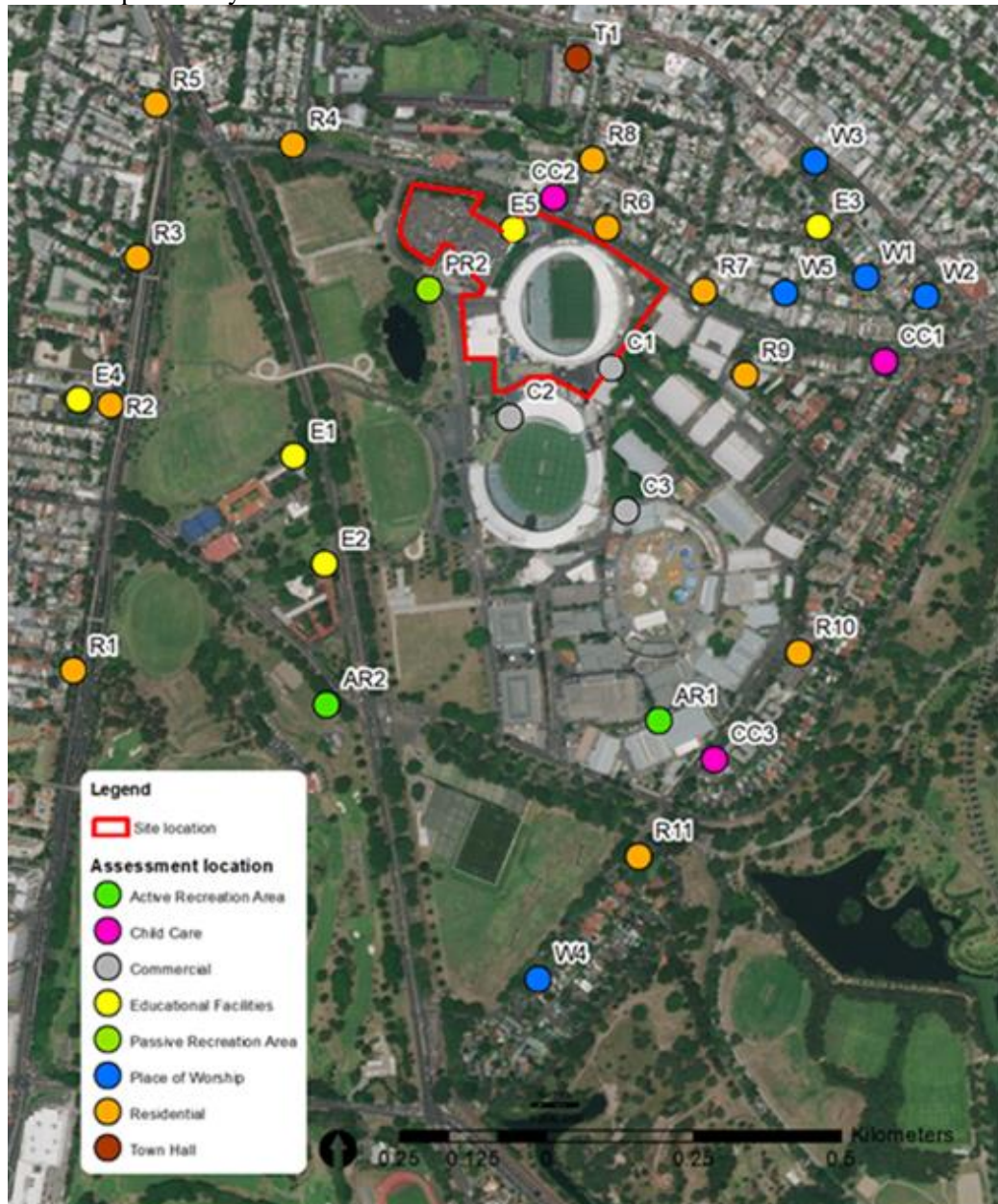


Figure 1 and listed in Table 2 and Table 3.

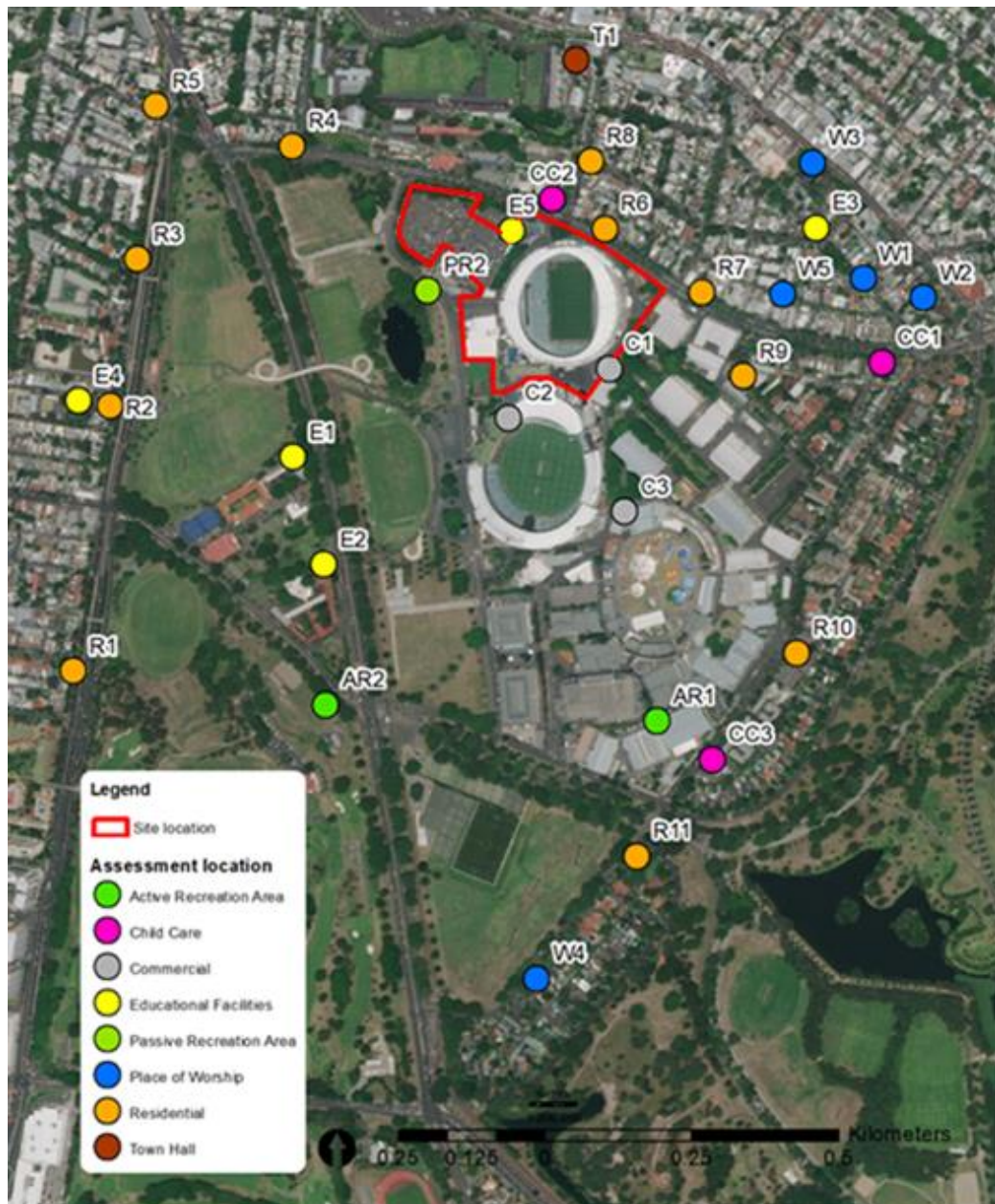


Figure 1: Site location, noise sensitive receivers

Table 2: Reasonably most-affected residential receivers

Receiver ID	Address	No. of floors
R1	749 South Dowling Street, Redfern	2
R2	635 South Dowling Street, Surry Hills	3
R3	553 South Dowling Street, Surry Hills	3
R4	111 Greens Rd, Paddington	2
R5	479 South Dowling Street, Surry Hills	3
R6	252 Moore Park Road, Paddington	2
R7	314 Moore Park Road, Paddington	2
R8	45 Oatley Road, Paddington	2

Receiver ID	Address	No. of floors
R9	5 Poate Road, Paddington	2
R10	107 Cook Road, Centennial Park	2
R11	2 Martin Road, Moore Park	3

A list of all non-residential noise sensitive receivers within the study area is presented in Table 3.

Table 3: Non-residential receivers

Receiver ID	Name	Address	No. of floors
Active Recreation Area			
AR1	Centennial Parklands Equestrian Centre	114-120 Lang Road, Moore Park	2
AR2	Moore Park Golf Course	Cleveland Street, Moore Park	0
Commercial			
C1	Fox Studios	38 Driver Avenue, Moore Park	2
C2	Sydney Cricket Ground	Driver Avenue, Moore Park	3
C3	Entertainment Quarter	122 Lang Road, Moore Park	3
C4	University of Technology Sydney Rugby Australia and NRL building	Moore Park Road and Driver Avenue, Moore Park	5
Child Care			
CC1	Gumnut Gardens Early Learning and Long Day Care Ce	61 Moore Park Road, Centennial Park	1
CC2	Kira Child Care Centre	230 Moore Park Road, Paddington	1
CC3	Bambini's Child Care Centre	157/159 Cook Road, Centennial Park	2
Educational Facilities			
E1	Sydney Boys High School	556 Cleveland Street, Moore Park	3
E2	Sydney Girls High School	Corner of Anzac Parade and Cleveland Street, Surry Hills	2
E3	Paddington Public School	399-435 Oxford Street, Paddington	2
E4	Bourke Street Public School	590 Bourke Street, Surry Hills	2
E5	University of Technology Sydney Rugby Australia and NRL building	Moore Park Road and Driver Avenue, Moore Park	5
Passive Recreation Area			
PR2	Moore Park	Moore Park	0
Town Hall			
T1	Paddington Town Hall	249 Oxford Street, Paddington	2

Receiver ID	Name	Address	No. of floors
Place of Worship			
W1	St Francis of Assisi Catholic Church	64 Gordon Street, Paddington	3
W2	St Mattias Anglican Church	471-475 Oxford Street, Paddington	2
W3	Paddington Uniting Church	395 Oxford Street, Paddington	2
W4	St. Vladimir's Russian Orthodox Church	31 Robertson Rd, Centennial Park	2
W5	Kingdom Hall of Jehovah's Witnesses	20 Leinster St, Paddington	2

Draft

3 Preventative management

3.1 Number of concert events

The combined number of concerts held on Trust land, including the SCG and the SFS must not exceed an average of four (4) concerts per calendar year averaged over any five (5) year period, and must not exceed six (6) concerts over any 'annual event period'. For the purposes of this condition, the term 'annual event period' is defined as the period of twelve months after [insert date of approval], and each subsequent period of 12 months.

3.2 Time limits

Time limits of sporting, concert and other events are provided in Table 4.

Table 4: Event time limits

Descriptor	Time limits			Maximum length of event
	Not to commence before	Not to finish after	If delayed outside of the Trust's control, may continue till	
Sporting events	8:00 AM	10:30 PM	11:00 PM	-
Concerts	10:00 AM	10:30 PM	11:00 PM	5 hours
Rehearsals and sound tests	10:00 AM	7:00 PM	-	Kept to absolute minimum
Other outdoor event with sound amplification – days preceding working days	10:00 AM	8:00 PM	-	-
Other outdoor event with sound amplification – days not preceding working days	10:00 AM	10:30 PM	-	-

3.3 Noise limits

Noise limits for events to take place at the SFS have been established for use of amplified sound systems. This reflects the community's sensitivity to amplified noise, functional requirements of Concerts, as well as the capacity to control amplified noise, as opposed to crowd noise.

Event noise limits for noise sensitive receivers are presented in Table 5.

Table 5: Event noise limits

Receivers	Amplified sounds during Concert event, $L_{eq(5min)}$		Amplified sounds during sporting / other event, $L_{eq(5min)}$
	dBA	1/1 octave, 63Hz dBZ	dBA
Property boundary of all residences. Apply at height of occupied floors.	70	90	60

These noise limits apply to wind speeds up to 5 m/s, above which wind generated noise is considered to be a significant contributor to event noise. During periods of wind greater than 5 m/s the Trust must continue to take all reasonable and feasible actions to minimise noise.

3.4 Definition of non-compliance

As a single exceedance of the noise limits does not directly translate to an unacceptable disturbance to the community, a single exceedance does not constitute a strict non-compliance with the consent.

An exceedance of the noise limits ($L_{Aeq(5min)}$ or $L_{Zeq(5min)}$ 63 Hz) during an event will not be taken to be a breach of Project Approval conditions unless they satisfy the conditions outlined in Table 6.

Table 6: Breach of Project Approval conditions

Exceedance of limits	No. of consecutive exceedances	No. of separate occasions
More than 2 dB	1	8
	2	3
	3	1
More than 5 dB	1	4

3.5 Notification

Notifications shall be provided to the community, consent authorities and relevant stakeholders for upcoming Concert events as outlined below.

As sporting events and other non-concert events are widely publicised through various media including television and the Trust website and constitute a lower risk to adverse noise impacts compared with Concert, notification for non-concert events is not required.

3.5.1 Community

Written notification of upcoming Concerts will be distributed by a letterbox drop to noise sensitive receivers within the notification boundary between 5 to 14 days prior to the event.

The notification boundary is identified in Figure 2 below.

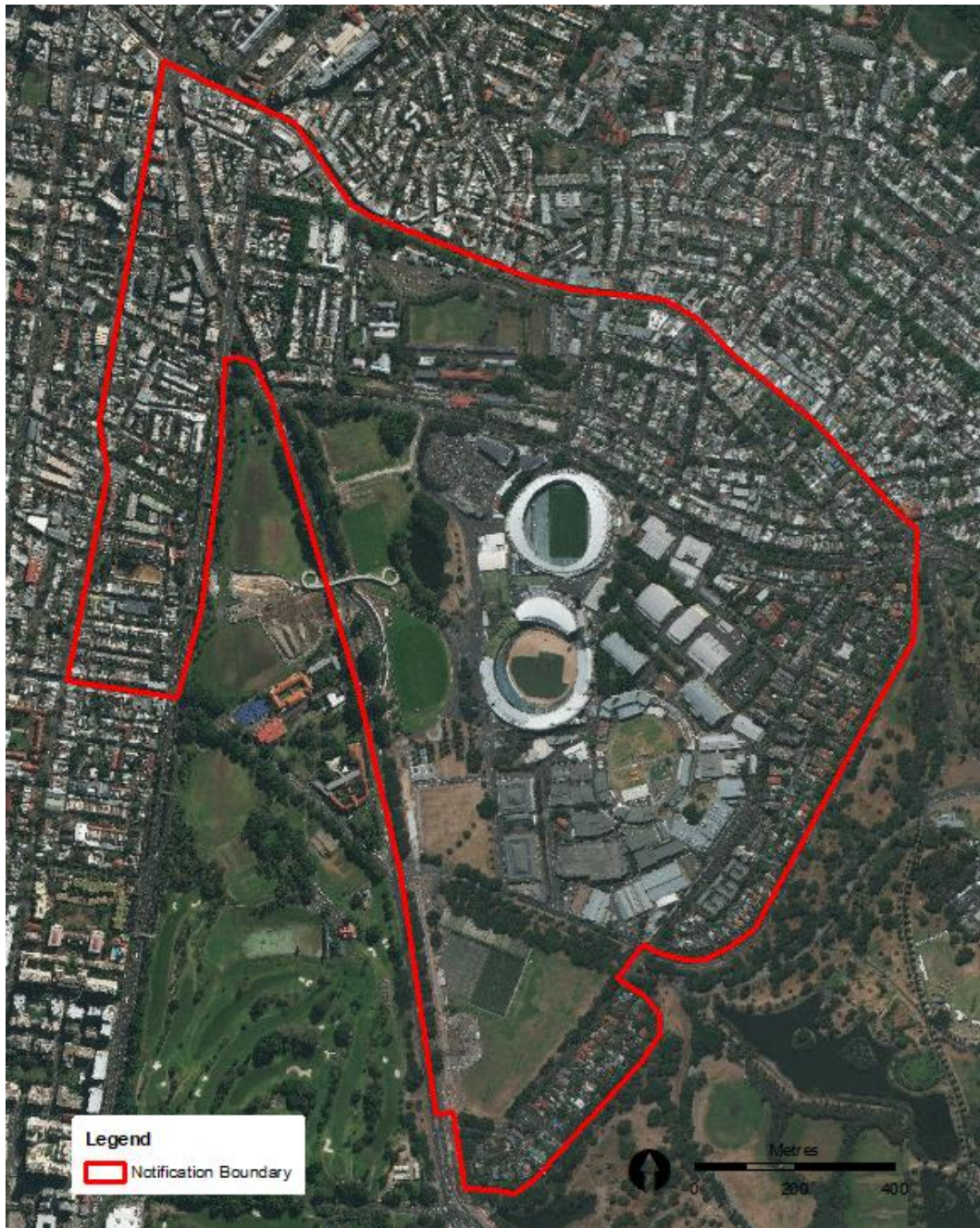


Figure 2: Notification boundary

Community notification shall include:

- the name, nature (description) and size of (expected crowd attending) the Concert event;
- the date and time (duration) of the event, including sound tests and/or rehearsals;
- the date and time (duration) of any planned pyrotechnics displays; and
- a telephone number and operating hours of the Trust information Hot Line for lodgement of noise complaints.

3.5.2 Consent authorities

Notification of upcoming Concert events will be provided to consent authorities at least 28 days prior to the Concert event, and of any changes to notification details at least 7 days prior to the Concert event.

Notification shall be provided to the following consent authorities:

- NSW Environment Protection Authority (EPA)
- NSW Department of Planning and Environment (DPE)

Consent authority notification shall include:

- the name, nature (description) and size of (expected crowd attending) the Concert event;
- the date and time (duration) of the event, including sound tests and/or rehearsals;
- the date and time (duration) of any planned pyrotechnics displays; and
- the name and contact details of the Event Representative(s) (See Table 1).

3.5.3 Moore Park Events Operations Group

The Trust is a member of Moore Park Events Operations Group (MEOG) which includes precinct partners, police, transport and other government agencies. MEOG aims to ensure a coordinated approach to the management of events held at the SCG, SFS, Fox Studios, Hordern Pavilion, Royal Hall of Industries, Entertainment Quarter and Randwick Racecourse.

Key Trust event management personnel meet regularly with other MEOG members to discuss upcoming events and agree appropriate actions to be taken where potential cumulative impacts are identified due to concurrent events taking place.

Attendance at these meetings and implementation of any actions are the responsibility of the Trust event management.

3.5.4 Pyrotechnics

In addition to the above notifications, signage should be displayed on site showing details of any pyrotechnics displays to take place 5 to 14 days prior to the event. Signs should present details of times and durations of upcoming pyrotechnics displays.

A Risk Management Plan addressing noise impacts of pyrotechnic displays on local residents and wildlife shall be made available.

Aerial shells and other high noise impact pyrotechnics are not permitted to be used in any display at the SFS.

3.6 Use of permanent noise monitors

A noise monitoring system comprising permanent on-site noise monitors will be installed to manage noise emissions from the SFS.

To minimise the influence of extraneous noise, particularly road traffic noise from Moore Park Road, noise monitors are recommended to be located within the site boundary, specifically under the stadium roof.

3.6.1 Monitoring system setup

Details of the number, location and specifications of the noise monitors shall be confirmed once the design of the SFS is finalised.

Preliminary recommendations for the noise monitoring system include:

- The use of four permanently installed noise monitors to be installed in the direction of the predicted worst affected noise sensitive receiver locations. Indicative noise monitor locations are presented in Figure 3.

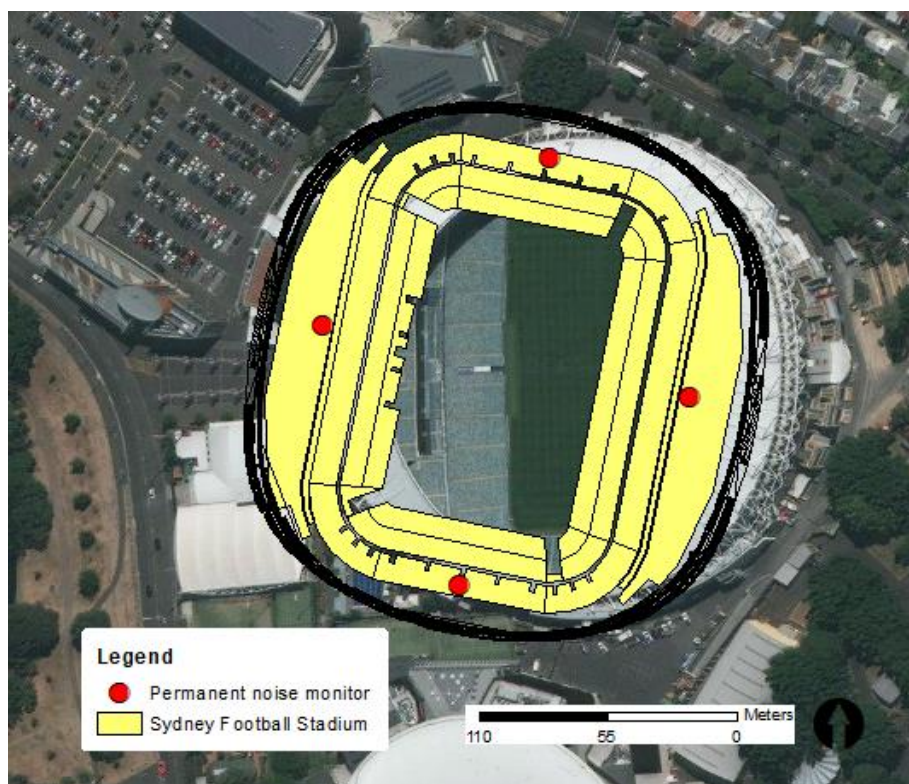


Figure 3: Indicative monitor locations

- The monitors will continuously monitor noise levels during Concerts with a feedback of real-time noise monitoring data into the event operations control room to allow both real-time management of noise emissions as well as timely response to measured exceedances of noise limits. The live read out available to front-of-house sound engineers managing the sound system.
- The installation of monitors below the stadium PTFE / ETFE roof. This will minimise the influence of wind noise on the microphones, which is likely to be minor underneath the stadium roof. Due to the relatively high acoustic transparency of PTFE / ETFE, acoustic reflections are unlikely to significantly affect measured noise levels at permanent monitors, however this shall be evaluated in the final selection of monitor locations.

- The specifications and design of the noise monitoring system should be developed early in the stadium design process to allow for the system to be incorporated into the stadium design while allowing considering of all the above factors.

3.6.2 Representative noise limits

Representative noise limits shall be established for each monitor which are equivalent to the compliance noise limits at the potentially most affected receiver to each monitor.

Preliminary representative event noise limits may be established based on predictive modelling once the SFS design has been finalised and monitor locations have been determined. The modelling shall aim to establish transfer-functions between noise levels at monitoring locations and noise limits noise sensitive receiver locations in 1/1 octave bands between 31.5 Hz and 8 kHz inclusive.

Representative noise limits may vary based on Concert sound system layout, as discussed in Section 3.8.2, and non-typical speaker layouts would require an adjustment of representative noise limits.

3.6.3 Monitoring system operation

Following the opening of the SFS, concurrent attended noise measurements at nearest noise sensitive receivers and noise measurements from the permanent noise monitoring system shall provide an event noise dataset from which the noise monitor limits can be refined to more accurately represent noise limits at nearest receivers. It is recommended that these concurrent attended noise measurements be conducted over a 'Trial Period' to extend over the first two Twelve Month Event Periods as defined in Table 1.

3.7 Staff

The Trust retains ultimate control of the noise emissions from the SFSR, including those caused by any sound amplification equipment operated outdoors.

An Event Representative(s), as defined in Table 1, shall be appointed by the Trust for each event at the SFS, with the responsibility and appointed authority to exercise control of noise emissions from the SFS.

The Event Representative(s) shall:

- be provided with and be familiar with the requirements of this NMP
- be responsible for the implementation of the requirements of this NMP
- be provided with the necessary resources and authority to implement the requirements of this NMP
- be available throughout the event to receive complaints regarding event noise
- be available throughout the event to provide event noise information via the Hot Line
- ensure prompt response and / or implementation of mitigation measures

3.8 Setup of sound amplification systems

3.8.1 In-House PA

Where practicable, amplified sound should be provided via the in-house PA sound system so that the sound levels can be controlled by a sound limiter. This may include announcements and music outside of concert events. An RMS compressor/limiter (eg. Rane HAL, BSS Blu, Symetrix Jupiter or MediaMatrix X-Frame 88) is recommended. Multi-band compression is recommended for greater control over the critical frequency bands.

3.8.2 Concert Sound Systems

Sound systems for Concert events will be provided by the event organisers. Based on previous Concert events, Concert speakers are likely to be arranged in one of three configurations:

1. Typical configuration: speakers are located at the north facing south, away from the nearest most potentially affected receivers along Moore Park Road.
2. Non-typical configuration A: Speakers located at the centre
3. Non-typical configuration B: Speakers located at the south of the stadium.

These configurations are presented in Figure 4 below. In both the north and south scenario, the figures indicate four front of house speakers at the stage with three delay speakers located further back in the crowd, indicative of a typical sound system configuration for a large arena style Concert.

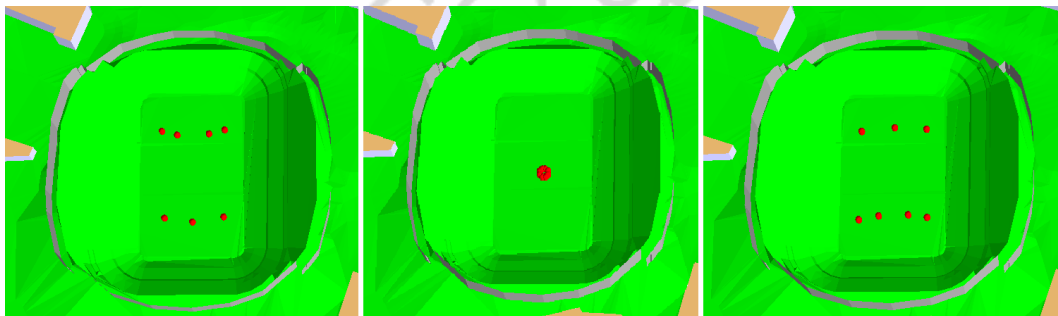


Figure 4: Speaker configuration located north facing south (left), centre facing outwards (middle) and south facing north (right)

Noise modelling was conducted to investigate flexible, non-typical event scenarios and quantify the resulting differences in noise levels at nearest affected noise sensitive receivers. The middle and southern speaker configurations are however unlikely to be utilised.

Modelling results showed the lowest noise emission levels to nearest noise sensitive receivers was the typical configuration, where speakers are located at the northern end of the stadium facing south. This was primarily due to the directionality of the Concert speaker arrays.

For the non-typical speaker configuration where speakers are located in the centre of the stadium facing outwards, results showed significantly higher noise levels at the worst

affected receivers. These configurations should therefore be avoided where Concert noise levels are anticipated to be an issue. Results are presented in Table 7.

Table 7: Noise emission comparison for varying Concert speaker configurations

	Predicted event noise levels at worst affected receiver		
	North	Centre	South
Configuration	Speakers located north facing south	Speakers located centre facing outwards	Speakers located south facing north
$L_{Aeq5min}$	Lowest noise configuration	14 dB higher than North configuration	10 dB higher than North configuration
$L_{Zeq5min}$ 63 Hz	Lowest noise configuration	20 dB higher than North configuration	16 dB higher than North configuration

Representative noise limits for the permanent monitoring system, discussed in Section 3.6, will also require review if the speaker configuration is changed, as the transfer functions which relate noise limits at receivers to representative noise limits at the monitoring locations, may vary with different speaker configurations.

An optimal setup of sound amplification systems should be sought in consultation with suitably qualified acoustic consultants to minimise noise impacts at potential worst affected receivers. Details of each sound system setup adopted by each event operator should be recorded so as to potentially inform future event sound system selection.

Notwithstanding the above, it may be possible to operate with non-typical speaker configurations while complying with event noise limits should care be taken to adequately control noise emission through implementation of mitigation measures and regulation of noise levels through the analysis of noise monitoring data. Should non-typical speaker configurations be used, details of the sound system setup adopted shall be recorded to inform future event sound system selection and layout.

3.8.3 Sound Amplification Equipment Selection

In addition to the recommendations described above:

- Any sound amplification equipment used at any time on Trust lands will be installed in such a way as to minimise the noise impact on residential premises or sensitive receptors;
- The sound amplification equipment will be maintained in a proper and efficient condition so as to minimise the noise impact on residential premises or sensitive receptors; and
- The sound amplification equipment will be operated in a proper and efficient manner so as to minimise the noise impact on residential premises or sensitive receptors.
- Sound systems may also include noise limiters to prevent exceedance of established noise limits at nearby receivers, or trigger levels as indication of exceedances of noise limits. The setting of these systems will require consultation with suitably qualified acoustic and AV consultants.

Implementation of the Concert noise predictive procedure, stage optimisation and equipment selection are the responsibility of the Trust.

4 Reactive management

4.1 Complaints handling

A Trust information Hot Line should be available at all times during a Concert event. Details of the Hot Line will be provided via the notification procedures and listed on the Trust website.

The Hot Line shall be staffed by the Event Representative(s).

In the event a complaint is made, the following steps shall be undertaken:

1. Complaint details will be recorded in a complaint register, to be maintained by the Trust. Details will include:
 - Name of staff receiving complaint;
 - Date and time of complaint and corresponding event;
 - Name, address and telephone number of complainant (if available);
 - Nature of complaint; and
 - Response action taken to date.
2. The Event Representative should immediately notify the event operations control room. Following the end of the current 5-minute noise measurement period, should an exceedance of noise limits occur, noise levels shall be reduced by the amount of the exceedance.

If no exceedance is noted, current noise levels shall be recorded in the complaint register.

The record of complaints will be held for at least five (5) years after the complaint was made.

4.2 Reporting requirements

Reporting requirements following Concert events are outlined below.

4.2.1 Trial period

As a result of a more robust noise monitoring system being implemented, potential to implement a more automated reporting system may arise. A review of reporting requirements shall be conducted following the two-year Trial Period of the noise monitoring system.

4.2.2 Reporting to the community

No more than two (2) working days after the completion of each separate Concert event the Trust will publish on its website a summary of noise monitoring results. The summary report will set out:

- Compliance or non-compliance with noise and time limits; and

- The times and duration of any occasions where exceedances of the noise and time limits and what measures were implemented to ensure that the exceedance(s) did not reoccur; and
- Determination on whether exceedances constituted a 'non-compliance' as defined in Section 3.3.

The information will be understandable to the general public, with all technical terms explained in plain language.

When available, the Trust will also publish a full copy of the noise monitoring report on its website.

4.2.3 Reporting to the EPA

At the completion of each separate Concert the Trust publish a report onto their website and no longer than two (2) working days after each Concert. This report will include the following details:

- Compliance or non-compliance with noise and time limits;
- The times and duration of any occasions where exceedances of the noise and time limits occurred and what measures were implemented to ensure that the exceedance(s) did not reoccur;
- Discussion on whether exceedances constituted a 'non-compliance' as defined in Section 3.3; and
- The number and nature of complaints received during the Event.

Not later than thirty (30) days after the completion of a Concert or series of Concerts, the Trust will provide a report in writing to the EPA Manager Sydney Local Government.

The report will contain the following:

- The name, address and telephone number of the report author;
- The relevant date(s) and the commencement and completion times of the test(s), rehearsal(s) and Concert(s) on each day;
- The estimated total number of people that were anticipated to attend the Concert(s) on each day and the number who actually attended;
- A statement of any time(s) at which the noise level limits were exceeded and why, the level(s) and duration of any exceedance(s);
- A determination on whether these exceedances constituted a 'non-compliance' in accordance with Section 3.4; and
- Any other information relevant to the consideration of the noise impact from the event on residents or other sensitive receptors.
- A summary of the number, location and times of any feedback received by the Trust;
- If any exceedances occurred or any feedback received, details of what the Trust intends to do (or do differently) for any future events; and
- Any other information relevant to the consideration of the noise impact from the event on residents or other sensitive receptors.

5 Review mechanism

The Trust implements an annual program of review for the NMP to assess its effectiveness in achieving key noise objectives.

5.1 Review of Noise Management Plan

This NMP shall be reviewed annually at the end of the Twelve-Month Event Period or more regularly on an 'as needs' basis. The review shall be conducted in consultation with an Accredited Acoustic Consultant.

Recommendations from any interested parties made to Trust for changes to be made to the NMP will be considered.

The NMP will be made publicly available on a website alongside information on upcoming events.

5.1.1 Methodology

In conducting the NMP review program the following steps will be undertaken:

- Review any existing 'Opportunities for Improvement' identified during the previous annual review;
- Assessment of compliance with noise and time limits through review and analysis of noise monitoring data;
- Review of the complaints register, as well as any complaints made to the EPA or City of Sydney Council regarding Event noise. This review will aim to identify common causes or locations of complaints;
- An evaluation of the complaints register will be undertaken in conjunction with the assessment of compliance with noise and time limits. This review will aim to correlate complaints with limit exceedances;
- Assessment of the adequacy and timeliness of the Trust's reporting to the community;
- Recommend 'Opportunities for Improvement' for the following Twelve-Month Event Period which have been identified as a result of the review process; and
- Consider the outcomes of the review and incorporated relevant improvements into the NMP revision in consultation with an Accredited Acoustic Consultant.