



# CONCERT HALL

## TECHNICAL & PRODUCTION

### INFORMATION

SYDNEY OPERA HOUSE  
(Bennelong Point)  
GPO BOX 4274  
SYDNEY NSW 2001  
AUSTRALIA

Please direct all enquiries to Production Services  
phone +61 (0) 2 9250 7307  
fax +61 (0) 2 9250 7835  
email [techspec@Sydneyoperahouse.com](mailto:techspec@Sydneyoperahouse.com)  
[www.sydneyoperahouse.com](http://www.sydneyoperahouse.com)

The information contained in this document is given in good faith and is believed to be correct at the time of preparation.

While every effort is made to fulfil presenters' requirements from in-house stock, no guarantee is made that the equipment listed will be available for a particular event. Availability is subject to the requirements of the other venues in the Sydney Opera House.

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## GENERAL INFORMATION

The Concert Hall is the largest venue in the Sydney Opera House. The stage area consists of a plain-walled platform with no significant wing space. It is primarily used by symphony orchestras, chamber orchestras, solo classical performers and choral groups, for which its acoustics are particularly suited. The hall is also used for dance, variety shows, seminars and conferences, popular music, jazz and grand opera. The walls and floor are plain brush box timber. The seats are made of white birch timber upholstered in light purple wool. The ceiling is also white birch.

### Seating

The maximum seating is 2679, arena style. With the optional stage extension, maximum seating is 2593, arena style. The capacity for amplified concerts is around 2100 in front of the stage.

Entrance to the auditorium for patrons is through 14 doors from the foyers.

STALLS WITHOUT STAGE EXTENSION	774	(689 with extension)
CHOIR STALLS & ORGAN GALLERY	302	
TOTAL BOXES	694	
CIRCLE & UPPER CIRCLE	909	
<b>Total</b>	<b>2679</b>	

### Accessibility

The auditorium is wheelchair accessible via Stage Door. Front of House staff will assist patrons to the stalls. Access to the stage is via the goods lift. Please discuss special needs in advance.

### Assisted Hearing System

An FM radio transmitter operates within the theatre on a dedicated frequency. Receivers are available from staff in the foyers. A loop system also operates in selected seats in this theatre. Patrons are advised to turn their hearing aid to the T switch to pick up the program.

### Plans

Venue plans are available on [www.sydneyoperahouse.com](http://www.sydneyoperahouse.com) - CAD plans can be ordered through Production Services, phone +61 2 9250 7307, fax +61 2 9250 7835 or email [techspec@sydneyoperahouse.com](mailto:techspec@sydneyoperahouse.com)

### Load-in Area

Equipment is brought in to the building via Central Passage. The Concert Hall Platform is located two levels above with access via a goods lift. Height and weight limits apply. An incline of 1:8 must be negotiated from the anteroom to the OP (*stage right*) side of the Concert Platform. The doorways onto the Concert Platform are *not* symmetrical in location. The OP (*stage right*) door has better access than the PS (*stage left*) door, which has stair access.

### Vehicle Access

Access for any vehicle must be arranged in advance. Note that exclusion zones operate at certain times when performances are taking place. Vehicle access to Central Passage is normally via the southern door off the Concourse next to Stage Door. Larger trucks enter through the northern door via the Western and Northern Broadwalks. Vehicles must remain within designated areas as instructed by Sydney Opera House staff.

### Parking

The Sydney Opera House Carpark adjacent to the complex is operated by Wilson Parking, phone 1800-PARKING. It is not owned or managed by the Sydney Opera House however validation of

the performer's parking tickets for a reduced rate can be done just inside Stage Door. There is normally no provision for parking on the Sydney Opera House site.

## Height Restrictions

Transport contractors must check to ensure that load heights do not exceed the maximum:

HEIGHT OF CONCOURSE	3.6m <i>safe clearance</i>
CENTRAL PASSAGE SOUTH DOOR	3.4m high x 4m wide <i>safe clearance</i>
CENTRAL PASSAGE NORTH DOOR	4.4m high x 4.5m wide <i>safe clearance</i>
CONCERT HALL GOODS LIFT	1.98m high x 1.88m wide x 3.98m long
STAGE ENTRANCE DOORS	1.88m high x 1.80m wide <i>very restricted access</i>
STALLS DOOR 11	2.03m high x 1.50m wide <i>restricted access</i>

## Maximum Loads

CENTRAL PASSAGE FLOOR	9t axle load <i>no overtaking or passing</i> 6t axle load <i>passing allowed</i>
WESTERN BROADWALK	27.5t over 3 axles <i>limited areas only</i> 23.5t on 2 axles
NORTHERN BROADWALK	27.5t over 3 axles <i>limited areas only</i> 23.5t on 2 axles
GOODS LIFT CAPACITY	1814kg

## Transport Schedule

A Transport Schedule is to be provided at least one week in advance, indicating the type, height & weight of each vehicle, registration number and details of the driver. For security reasons, vehicles that have not been booked in may be denied access to the site. Please note that access restrictions apply according to overall site activity and exclusion zones must be adhered to.

## Risk Management

- In accordance with NSW OH&S legislation, a comprehensive risk assessment is required during pre-production for all shows and events, and should be presented at least seven days before the event. Our staff can assist with this process.
- Equipment may be subject to safety checks by Sydney Opera House staff.
- All mains-connected electrical equipment requires a current compliance test tag from a suitably licensed person.
- Overhead equipment (including lighting and scenery) must be rigged by a qualified rigger, using appropriately certified equipment.
- Lighting equipment rigged overhead must be secured with a safety chain or similar.
- Scenery and large props must be of a fire retardant fabric or treated with a fire retardant. A certificate of such treatment must be produced on request. Polystyrene, plastic and other such materials that cannot be treated with fire retardant are not permitted.
- Approved drapes must be of a fire retardant fabric or treated with an approved fire retardant and with an appropriate label attached to the drape.
- Compressed air may only be used by suitably trained operators.

## Workshop Space

The Concert Hall has no workshop space; however support staff may be available to assist with emergency repairs.

## Storage Space

There is very limited storage space. Some items may, by prior arrangement, be left overnight, but there is no provision for storage beyond this.

**The Sydney Opera House takes all care, but no responsibility for the loss or damage of any presenter's property, including personal belongings. Artists are encouraged to refrain from bringing personal belongings not required for the event.**

# STAGE SPECIFICATIONS

## Stage Dimensions

Dimensions are approximate. Critical measurements should be confirmed on site. The setting line (*zero line*) of the stage is drawn between the downstage corners of the main side walls.

<b>WIDTH</b>	downstage	18.36m
	setting line	16.90m
	foot of upstage stairs	14.80m
<b>DEPTH</b>	centre line	11.51
	sides	10.87m
<b>EXTENDED DEPTH</b>	centre line	13.75m
<b>CEILING HEIGHT</b>	maximum ( <i>shape varies</i> )	22m <i>centre stage</i>
<b>STAGE HEIGHT</b>	above auditorium floor	1.30m
<b>UPSTAGE WALL</b>	height	1.60m <i>from stage floor</i>
<b>THROW</b>	followspot	36m <i>to downstage edge</i>
	rear stalls to stage	21m
	rear circle to stage	44m

## Stage Floor

<b>SURFACE</b>	satin matte clear polyurethane on brushbox
<b>STAGE RAKE</b>	0 degrees (flat)
<b>UPSTAGE WALL</b>	satin matte clear polyurethane on brushbox
<b>BOX FRONTS</b>	satin matte clear polyurethane on brushbox
<b>MATERIAL</b>	hardwood brushbox flooring
<b>MAXIMUM LOADING</b>	7.5kPa (750 kg/m <sup>2</sup> ) – distributed
	4.5kN (450kg) - concentrated

## Care of Timber Surfaces

No holes or permanent marks of any kind (*including cello or double bass spikes*) may be made on any timber surface in the Concert Hall. Equipment and scenery can be weighted or clamped. Marks must be removable "spike tape" available from the Stage Manager.

## STAGE MACHINERY

### Control System

The control system for all winches and platforms is operated by soft-touch control interface panels, located at stage level as well as a variety of flexible control point locations. The control system is PLC based and provides simple controls including speed matching and position control as well as fault diagnosis.

### Stage Extension

The optional stage extension is comprised of five independent scissor-lift platforms, each with a load bearing capacity of 3300kg. Seats in stalls rows A, B and C are removed to accommodate the extension. The extension adds 2.25m depth at the centre line and 1.10m at the sides.

Another two platforms beneath the centre of the front stalls create a thrust catwalk of 3.75m wide by 3.80m deep (*1.90m deep per platform*), after appropriate seat removals.

Each lift is adjustable in height between the auditorium floor and stage floor.

### Piano Storage Lift

Located downstage OP (*stage right*), this lift allows temporary storage of a full size concert grand piano beneath the Concert Hall stage. The lift is not available for use during performances.

### Special Purpose Winch Sets

There are 18 clear Perspex acoustic reflectors ("*clouds*") rigged in three rows of six over the stage. The reflectors are used to balance the live acoustic in the hall. Operating height is variable, usually 6-8m above the stage. Storage is just below ceiling height.

There are five public address speaker cluster winches: the main cluster over the forestage and two delay pairs (ie 4) over the Circle (*see the Sound and Audio Visual section for details*).

### Lighting Winches

Temporary pre-wired lighting bars connect to special lighting winches: the Stage Bar (12m), two Side Bars (each 6m long) and Audience Bar (2 x 6m long). These lighting bars have 48mm (1  $\frac{7}{8}$ " ) pipe and pick-up points to suit specific winches. The battens are pre-wired in circuits of 6 @ 2kW each and run directly to dimmers.

### Other Winches

There are twelve other winch sets spaced over the Stalls, Platform and rear Choir Stalls. They have limited variable-speed drives controlled from the main winch control system. They are suitable for hanging scenic elements and additional lighting, but are not designed for flying cues during performances. Custom made 4"x1" timber battens as well as 2m & 3m tri-truss sections are available for use with these winches.

### Load Limitations

The maximum distributed load for the winches vary from 250kg up to 450kg however there are restrictions on the total load that can be applied to different areas of the ceiling above the stage. Prospective clients must discuss their rigging design at least four weeks before the event and if necessary obtain approval from the Sydney Opera House's nominated engineering consultant.

## Suspension Points and Heavy Duty Load Winches

A number of points for point loads and heavy-duty winches are established in the ceiling structure. Please discuss any proposed use of these points or winches well in advance.

## STAGING EQUIPMENT

### Orchestral Furniture

There is sufficient equipment to furnish a large orchestra including adjustable orchestra chairs, bass stools, music stands, adjustable rostra and conductor's podium.

The adjustable MEGADECK rostra have a timber-top measuring 1m x 2m. The minimum height is 200mm, then adjustable in 200mm increments from 400mm to 1000mm. Load capacity is 500kg/m<sup>2</sup>.

### Hydraulic Platforms

Six scissor-lift platforms are installed in two rows of three across the stage, adjacent to the upstage wall. Each platform is 1.5m deep and varies from 3.85m to 4.95m in width. Height settings are variable from stage level to 1720mm. Maximum static load capacity 3000kg each.

## KEYBOARD INSTRUMENTS

Hiring of the venue does *not* include the use of any Sydney Opera House keyboards or tuning costs. There is a choice of Steinway 9' Concert Grand pianos (*subject to availability*).

### Pitch

All pianos are tuned to standard concert pitch of A = 440 Hz. Only slight variations will be considered. Please discuss your needs as early as possible.

### Care

Mechanisms of instruments shall not be tampered with (*or "prepared"*) in any way without permission from the Sydney Opera House. No food or liquid is to be placed on the instruments.

### Grand Organ

Designed and built by Ronald Sharp, the Concert Hall Grand Organ, contains 10,244 pipes, 205 stops and five manuals. It is driven mechanically and has a number of electronic accessories such as recordable preset memories for playback and recording. The instrument is 15m high, 13m wide and 8m deep. It is built into the rear (*southern*) wall of the Concert Hall. The façade displays 109 show-pipes of 95% burnished tin and 24 bronze bells. The base of the instrument is 9m above the stage, and overhangs the organ gallery seating. Further information is available at: [http://www.sydneyoperahouse.com/sections/about\\_the\\_house/venues/pdfs/technical\\_specifications\\_grand\\_organ.pdf](http://www.sydneyoperahouse.com/sections/about_the_house/venues/pdfs/technical_specifications_grand_organ.pdf) Concert Hall rental does not include the use of the Grand Organ. The organ is available for hire by arrangement. The organ can not be used when smoke or haze is present in the hall.

If the organist is not acquainted with the instrument a familiarisation session with the Sydney Opera House organ tuner is required (*an extra charge applies to this service*). Rehearsal time, if required, must be programmed into the production schedule. For safety reasons, technical set up cannot continue while the organ is being played. The Sydney Opera House Stage Manager will arrange access for the organist.

There are 2 x colour CCTV monitors - a full stage-view and a conductor-view (which can be mirror-reversed if required). There is a foldback speaker from the stage to the organ, and a microphone connection for communication with the conductor or the audience. Communication with the Stage Manager is by red and green cue lights and direct communications on request.

## STAGE LIGHTING FACILITIES

### Control

The Concert Hall lighting is controlled by a STRAND 550i computerised control system with a STRAND 510i backup system. Both systems have 1000 channels, use the STRAND SHOWNET Ethernet communication protocol and have installed "CommuniquéPro", "Tracker", "Networker" and "Server" software.

A STRAND SN104 node is installed on stage and a STRAND SN102 node is available for use with the designer's monitor at the Production Desk.

In the event of an Ethernet failure there is full DMX backup from both systems to the Dimmer Room and to back stage. A printer is available for hard copy if required.

A VDU display can be set on the production desk. For rigging and focussing on stage various Remote Control units are available.

A stand-alone STRAND 520i control system is available (shared with other venues) which can be added to the network and used for specialist plotting; with or without channel partitioning.

### Dimmers

There are 348 x 5kW dimmers installed in various locations, of which 24 are dedicated to house lights and architectural lighting and 24 are dedicated to the crown lights directly over the stage.

### Power

All general and dimmed electrical power supplies are 240V AC @ 50 Hz. Additional 3-phase supplies (415V AC) are available. A 250amp 3 $\phi$  supply with Powerlock connectors is available off-stage as well as a number of 32amp and 40amp 3 $\phi$  Wilco pattern 5-pin connectors.(including separate power sources for audio requirements). A distribution board can be installed by prior arrangement

***The supply of additional power must be discussed well in advance of the event.***

### Fixed Installation Concert Lighting

The fixed Concert Platform lighting is designed to provide optimum coverage of the stage for orchestral performances and events that only require basic 'open white' lighting.

Position	Lamps	Notes
BACK SPOTS	8 x STRAND SL 15/32 <sup>o</sup>	2 pairs per side (4 circuits).US & DS, fixed focus
CROWN	48 x ETC SOURCE4 PAR	Fixed, white, full stage focus, 24 areas,
CHOIR STALLS	8 x ETC SOURCE4 PAR	fixed focus 4 per side on 4 circuits
ORGAN SPECIALS	2 x STRAND SL 10 <sup>o</sup>	organ console
ORGAN KEYBOARD	1 x STRAND Patt 23N	overhead light on organ keyboard
FOH POSITION 1 (‘OLD FOH’)	22 SELECON ARENA PC (2 rows of 11 units)	1 row covers the front of the main stage, 1 row covers the stage extension, - all fixed focus, can <u>not</u> be coloured, angle to front of stage is 60-65 <sup>o</sup>
SIDE LIGHTS	6 x 1.2kW pole-operated POLARIS Fresnels	2 each side, individual dimmers, side light + 1 each side, individual dimmers for Choir Stalls.

## Additional Concert Lighting

These lamps require extra focussing time, but are available by prior arrangement.

Position	Lamps	Notes
BACK SPOTS	6 x 2.5kW ROBERT JUILAT 15/40°	3 per side, individual dimmers
	2 x HI END CYBERLIGHT TURBO	1 per side
FOH 'FANS'	4 x 2kW ROBERT JUILAT 15/40°	2 per side
	4 x HI END CYBERLIGHT TURBO	2 per side
	8 x STRAND S/L 15/32°	4 per side
	2 x Strand S/L 10°	1 per side, focused on conductor position
FOH POSITION 2 (NEW FOH)	10 x 1.2kW, 80V Selecon PACIFIC long throw zoom profiles	individual dimmers, - angle to front of stage is 40-45°
CROWN SPECIALS	2 x 2k ROBERT JUILAT 15/40°	1 per side, individual dimmers
FOLLOWSPOT BOOTHS (ABOVE CONTROL ROOM)	8 x 1.2kW, 80V Selecon PACIFIC long throw zoom profiles	individual dimmers - angle to front of stage is approx 30°
CANNON PORTS	16 x STRAND S/L 15/32° 600W	8 per side, (incl. Call lights)

A number of these permanently rigged lamps are fitted with colour scrollers enabling access to a range of colours. Additional time should be allowed in production schedules for plotting cues when using colour scrollers.

## House Lights

House lighting can be dimmed manually or by the lighting control system. There is a limited capacity for isolating areas of house lighting.

## Temporary Lighting

In addition to the fixed installation a number of temporary lighting battens can be rigged. These battens can be either purpose-built lighting bars in 6m lengths of 48mm OD tubing with built in outlets, or aluminium triangular truss in 2m lengths. (Other positions may be available on request)

Position	Length	Patchable circuits	Max. Dist. Load
SIDE BARS PS & OP	1 x 6m each side	12 x 2kW each bar	450kg each side
STAGE BAR	2 x 6m	12 x 2kW	350kg total
AUDIENCE BARS	2 x 6m	12 x 2kW	400kg total

## **Followspots**

Four ROBERT JULIAT "CYRANO" 2.5kW HMI followspots with manual colour changers are permanently located above the Circle. The angle to the front of the stage is approximately 30°. The throw is 36m. Additional portable followspots with stands and colour changers may be available by prior arrangement.

## **Music Stand Lights**

24V sconce lights are available to fit music stands. The conductor's stand can also be lit. These are only necessary when no light or strongly coloured light covers the stage while musicians are reading music.

## **Colour**

Colour scrollers are available if required. A full range of LEE FILTERS and ROSCO SUPER GEL is available.

## **Effects**

### ***Smoke and fog machines***

A number smoke/ haze machines are available subject to requirements in other theatres. Any smoke / haze, dry ice machines that are brought into the house must be approved prior to use. A "material safety data sheet" will be required for any machine that has not been previously approved for use within the Opera House. Emergency Planning & Response Group staff must be consulted whenever any smoke, fog or haze effects are used as special precautions must be taken with the automatic fire alarm system.

Note that smoke or haze can NOT be present in the Hall while the Grand Organ is in use.

## **Strobes**

Note that any use of strobes may require warning notices to be displayed in the foyer.

## ***Pyrotechnics, naked flame and lasers***

Pyrotechnics, naked flames and lasers may only be used with prior written approval. Your Sydney Opera House Production Manager can assist with submitting an application.

## ***Additional Equipment***

A range of additional equipment (including theatrical and TV lanterns, additional colour scrollers etc.) is available subject to the demands of the other theatres. Availability is not guaranteed, so all requirements must be discussed well in advance of the event. Additional equipment can be hired in on a presenter's behalf.

## **SOUND & AUDIO VISUAL FACILITIES**

### **Acoustics**

The Concert Hall is 'live' and bright with strong reverberance due to the high ceiling. The reverberation time is around 2.2 seconds from 100Hz to 8KHz with a full audience.

### **Operating position**

The standard FOH operating position requires 13 seats to be removed from the hall. These are X22-28, W22-27.

Please inform the Production Manager as soon as you think this position will be required so the seats can be pulled from sale.

### **Standard Public Address System**

#### ***Central Speaker Cluster***

A central speaker cluster is suspended 6.5m above the platform and is comprised of 8 x JBL4892 loudspeakers. This provides up to 360° coverage and is divided into 5 zones. Unused sections of the auditorium can be isolated via remote control.

#### ***Image Speaker***

A single JBL4892 is placed either side of the CH platform to create a stereo image.

#### ***Delay***

Four JBL4892 are flown out in the auditorium to cover the lower and upper circle.

### **Alternative Stereo Concert Line Array System**

#### ***Stereo Line Array***

Ten M2D line array with a M3D sub flown on each side of the concert platform

#### ***Floor Speakers***

Two MSL4s and an additional M3D sub wheeled in onto the stage to bring the image down to stage level and supply additional low frequency reinforcement.

#### ***Front Fill***

Ten UPMs lined across the front of the platform to fill the first couple of rows

#### ***Side Boxes***

Two UPA's hung off the back of each line array to fill the side boxes.

#### ***Rear Fill***

Nine M1D line array flown at the rear of the concert platform to provide stereo coverage to the rear choir stalls.

### **Stereo Mini Line Array System**

### ***Stereo Line Array***

Nine Meyer M1D Line Array boxes flown Left and Right covering FOH.

### ***Front Fill***

Ten UPMs lined across the front of the platform to fill the first couple of rows

### ***Side Boxes***

Two UPA's hung off the back of each line array to fill the side boxes.

### ***Delay***

Four JBL4892 are flown out in the auditorium to cover the lower and upper circle.

## **Alternative Stereo Concert System**

A MEYER SOUND LINE ARRAY system comprising M2D, M3D Sub woofers and UPA 1P is available as a concert system if desired. Consideration of lighting positions and audio coverage to the side and rear of the platform is required when using this system. Additional labour charges are incurred when this configuration is used.

## **System Drive**

Lake Contour controls all Concert Hall configurations. There are preset Lake Contour files for Central Cluster and all of the Myer configurations but depending on the gig requirements we can adjust all parameters. All Lake Contour's are on a dedicated wireless network controlled by our wireless tablet PCs.

## **Mixing Consoles**

Various mixing consoles are available. Please discuss your needs with your Production Manager.

### **FOH or Monitor Consoles**

- Yamaha PM5D
- Digico D1 Live
- Midas Heritage 3000 48ch
- Soundcraft MH4

### **Small mixing consoles**

- Yamaha DM 1000
- Yamaha O1V96
- Midas Venice 160
- Midas Venice 320

## **Outboard**

### ***Compressors***

- Manley Stereo Variable Mu

- Summit MPC-100A Mic Preamp / Compressor - Limiter
- DBX 160SL
- BSS 402/404

### ***Gates***

- BSS 504

### ***EQ***

- Klark Teknik DN360
- BSS Varicurve

### ***Effects***

- TC Electronics M5000
- TC Electronics M3000
- TC Electronics M2000
- TC Electronics D2
- Lexicon PCM 80
- Lexicon PCM 90
- Lexicon PCM 91
- Yamaha SPX990

### **Monitors**

- Up to 12 active sends or 24 passive sends
- 20 EAW SM200IH
- 2 EAW SB150z Subwoofer
- Martin WMO.5
- 6 stereo channels Shure PSM700 in-ear monitors
- 7 stereo hardwired Shure IEM
- 6 Lab Gruppen FP 10000Q four channel amps
- 3 Dolby Lake Controllers with wireless tablet

## **Additional Speakers**

- Meyer MSL4
- Meyer 650p
- Meyer PSW
- Meyer CQ1/2
- Meyer UPA
- Meyer UPJ
- Meyer UPM

## **Additional**

- Midas XL88
- 4 x 240v to 110v transformers 4.6A output
- BSS OmniDrive 366plus
- SMAART
- DOLBY Lake Controllers

## **Microphones**

A range of dynamic and condenser microphones from Shure, B&K, Neumann, Sennheiser and AKG are available.

Please discuss your needs with your Production Manager.

## **Radio Microphones**

Multiple Shure UHF-R Wireless System radio receivers with mutable pack transmitters and hand held transmitters with beta58, beta87 and KSM9 capsules.

## **Microphone Winches**

There are five stereo microphone winches - two over the Choir Stalls and three over the front half of the stage. The positioning is remote-controlled from a control panel onstage.

## **In Ear Monitors**

SHURE PSM 700 in-ear monitors (subject to availability and provision of ear moulds by the end user).

## **Playback Formats**

CD, DAT, mini-disc, AKAI DD1000 & S3200, TASCAM DA-88.

## **Patching**

Audio & Video patching facilities, tie-lines, and splitters are available for productions.

## **Microphone Winches**

There are five stereo microphone winches - two over the Choir Stalls and three over the front half of the stage. The positioning is remote-controlled from a control panel onstage.

## **Video Monitors**

Monitors can be supplied or hired in as required. Please discuss your needs as early as possible.

## **Video Replay**

Video replay is possible in PAL, NTSC 4.43 (USA), NTSC 3.58 (Japan) and Secam. VHS, S-VHS and SP Betacam are available. Other formats can be hired in if required. Our staff can assist in determining the needs of your event.

## **Projection**

Projection equipment including video and overhead can be supplied. Other formats (film, slide) can be hired as required. Because of certain inherent challenges for projection in the venue it is recommended that requirements be discussed as early as possible.

A range of front and rear projection screens and video/data projectors is available.

## ***Additional Equipment***

A range of additional equipment is available subject to the demands of the other theatres. Availability is not guaranteed, so all requirements must be discussed well in advance of the event. Additional equipment can be hired in on a presenter's behalf.

# **RECORDING AND BROADCAST**

Recording, broadcast or photography of an event may require a separate Recording Agreement to be made with the Sydney Opera House and may incur a recording fee. A Recording / Broadcast Allowance (RBA) may be payable to technical staff working on the event. Please discuss recording plans as early as possible.

Only the Concert Hall and Opera Theatre have built-in facilities for audio and video recording.

Written permission must be sought before recording an event for any purpose. Archival audio recording (*where no part of the tape is to be used for commercial purposes*) is available on CD/R or DVD/R.

## **Commercial Audio Recording**

A commercial recording of an event can be made from the control room or in the Recording Studio via an advanced optical fibre based network. Multi track digital recording is available on PYRAMIX GENEX or PRO TOOLS. The Recording Studio has a EUPHONIX SYSTEM 5 Digital Console. Further information about the Recording Studio is available at [http://www.sydneyoperahouse.com/sections/about\\_the\\_house/venues/pdfs/recording\\_studio-brochure.pdf](http://www.sydneyoperahouse.com/sections/about_the_house/venues/pdfs/recording_studio-brochure.pdf)

A Recording Agreement must be negotiated with the House and a recording fee is usually payable. In addition a Recording / Broadcast Allowance (RBA) is payable to technical staff working on the event.

## **Video Recording**

A "Commercial Recording" is any recording made for the purpose of sale, broadcast, exhibition or any activity resulting in financial gain for the owner of the recording. A Recording Agreement must be negotiated with the House and a recording fee is usually payable. In addition a Recording / Broadcast Allowance (RBA) is payable to technical staff working on the event.

An "Archival Recording" is a recording made for the sole purpose of documenting technical and performance aspects of a production. Archival Recordings are exclusively for the use of those creative and management employees directly associated with a Company, Artist or the House. Archival Recordings are not intended to create a direct commercial benefit for the owner of the recording, and are not to be used for broadcast, exhibition, distribution or sale in any form. For all Archival Recordings application should be made to the House for waiver of any RBA payments.

Standard format is DVD. Any special requirements should be discussed with your Account Manager. Broadcast standard recordings can be arranged.

## **OUTSIDE BROADCAST FACILITIES**

There are two OB van points at the northern end of Central Passage: *OB East* and *OB West*. Vehicles up to 4.2 m high and 8m long can normally be accommodated via the north door.

Each van point is equipped with three (3) WILCO outlets, each of 40A 3-phase, and six (6) single-phase 10A GPO, with a total available supply of 100A across all outlets. Both OB points contain video, audio and camera line patch panels to and from the venue, OB point to OB point, and various other areas.

Links can be arranged through TELSTRA or Channel 9 to carry both vision and audio from these points. Further details are available on request.

Presenters are encouraged to examine the OB facilities on-site before committing to an OB design.

Comms to all theatres available on request – 1 weeks notice is required.

Limited OM1 Multimode fibre is available.

## **COMMUNICATIONS**

### **Closed Circuit Television (CCTV)**

#### ***CCTV Longview***

A colour image of the Concert Hall stage is distributed to the Stage Manager's Desk, Lighting and Sound control rooms, Green Room, some dressing rooms and foyers.

Longview can be sent to most parts of the building by arrangement.

#### ***CCTV Shortview***

An image of the conductor from a camera under the organ is distributed to the Stage Manager's Desk.

Shortview images can be sent to other backstage areas by arrangement.

### **Stage Manager's Desk**

The Stage Manager's Desk (SMD) is located in Prompt Corner. The desk is fully programmable, and capable of storing a virtually unlimited number of "show files". The system can be used to broadcast live or pre-recorded announcements to backstage or foyer spaces. There is an automatic message-stacking facility to manage conflict between other venues in the complex when messages are sent to common areas. Facilities include paging, program relay, cue lights and foyer bells.

### **Headset Communications**

A wired master station is installed at the SMD, with talkback communication using CLEARCOM components to Lighting and Sound control rooms, Grand Organ, followspots and OP wing. Headset communication is installed at all regular operating positions. Additional headsets can be supplied.

A TELEX radio BTR800 system with 8 beltpack headsets is available, with 2 channels interfacing with the CLEARCOM system.

Alternative comms solutions are available at extra cost and at least 1 weeks notice

## BACKSTAGE FACILITIES

### Dressing Rooms

The hire of the Concert Hall includes exclusive use of the 11 associated dressing rooms during the hours the venue is booked.

- 7 are soloist's rooms, accommodating 2 to 4 artists. They include ensuites with shower, toilet and locker facilities. Some rooms include a piano.
- The Conductor's Suite is reserved for conductors, soloists or company managers. The room has a lounge area with a baby grand piano, a writing desk and TV. The dressing facilities include a dressing table, full-length mirror, wardrobe rack and an ensuite.
- There are 3 larger rooms that are suitable for choirs or dance groups.

**Note:** Lockers in the dressing rooms are fitted with a staple and hasp. In order to lock the lockers, performers or presenters should bring their own padlocks. Lockers must be cleared at the conclusion of the hiring period.

### Wardrobe and Laundry Facilities

There are no laundry or wardrobe facilities in the Concert Hall. An iron and ironing board and wardrobe racks are available from the Stage Manager on request.

### Visiting Management Office

There is a Visiting Management office suitable for 4 people.

### Green Room

The Green Room is located one level below the Concert Hall stage. It includes a cafeteria, a licensed bar, wireless internet connection, and a small games area with a pool table. The Green Room is common to all venues and is for the exclusive use of artists, crew, staff and their guests. All visitors must be signed in at Stage Door and escorted to the Green Room by the host artist.

### Rehearsal Rooms

Rehearsal space is very limited across the House, with five major theatres competing for space. Requests should be discussed well in advance of the event. No guarantee is given that any rehearsal space will be available.

## SYDNEY OPERA HOUSE STAFF

Staff are covered by the Sydney Opera House Enterprise Agreement (2006), and remain under the direction of the Sydney Opera House at all times.

The Agreement is designed to ensure a safe working environment. For this reason, certain restrictions apply to hours of work. Basic Enterprise Agreement conditions that may affect production schedules include:

- Crew must take a clear half-hour meal break every five hours – please allow 45 minutes in your production schedule for crew to leave the venue, take a break and return
- Crew must have a *clear* ten hour break between shifts
- There are minimum crew numbers for certain tasks, and other Occupational Health and Safety procedures that must be followed
- Generally, presenters will not be permitted to work in a venue without the presence of Sydney Opera House staff

## ACCESS AND OTHER CONDITIONS

- All Sydney Opera House Trust staff, members of performing companies, other authorised personnel and all visitors, entering or exiting the House must do so at all times via the Stage Door. The Stage Door is located at the Southern end of the Central Passage off the Concourse (on the ground floor level).
- All visitors must be signed in at the Stage Door, be issued with and wear an appropriate Visitor's pass and be accompanied by their host at all times. It is the responsibility of the Host to escort the visitor to Stage Door when leaving and return the Visitor's pass.
- Identification cards must be worn at all times, except by artists when on stage.
- Access will only be granted to contractors and production staff after attending a Sydney Opera House safety induction.
- Smoking is not permitted in any of the internal areas, or any of the designated external areas of the House. Smoking, matches, pyrotechnics and other naked flames are prohibited on stage unless written permission is granted.
- Artists and management should keep their particular areas (especially dressing rooms) clean and tidy and secure.
- The movement of persons connected with particular areas must be restricted to those areas. The use of the Central Passage and the Green Room is common to all artists and management.
- The Green Room is for the exclusive use of artists, hirers, Sydney Opera House management and staff and their visitors. Members of the public or press are not permitted to use these facilities.
- No filming, photography or video taping is allowed in the Green Room without special permission.
- No food is to be prepared in dressing rooms, locker rooms or other back of house areas.
- No crockery or eating utensils may be left in any area other than the Green Room.
- No filming, photography, or video taping is allowed on-site unless formal permission has been obtained.
- Pets, including animals to appear on stage are not permitted in the building without special permission in accordance with the regulations.

**All artists, staff and managements must observe the provisions of the Sydney Opera House Trust Management By-Laws made under the Sydney Opera House Trust Act, 1998 a copy of which is available from the Sydney Opera House Production Manager.**