



Llewellyn Hall

llewellynhall.com.au



Technical Specifications

Updated March 2023

Venue Manager:

Deanna Riddell

Email address:

deanna.riddell@anu.edu.au

Venue Information:

Situated inside the School of Music at the Australian National University, Llewellyn Hall houses a concert platform ideal for classical and contemporary music performances, as well as guest speakers. It has continental stalls seating and gallery arrangement and is capable of seating 1335 people. The venue has wooden acoustic panels as wings with no traditional theatre drapes available. The venue is incapable of a true dead black out.

The venue underwent a major acoustic refurbishment in 2008, has had an L'Acoustics Kara PA installed in 2019 and is now undergoing an LED lighting upgrade to become a state-of-the-art performance facility.

Llewellyn Hall is one of the best acoustic venues in Australia where the ANU Centralised Venues team provides professional audio-visual, production and front of house staff.

The venue is situated on William Herbert Place, off Childers Street in City West, in the centre of Canberra.

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STAGE**Brief Stage Description:**

Llewellyn Hall has an unranked stage with Tasmanian ironbark floor boards.

There is to be no screwing into the floor surface.

NB Due to the nature of the hardwood floor some point load pressure may dent the floor. Point loads are therefore subject to venue manager's discretion.

Stage distributed load limit: **750 kg/m² (7.5 kPa)**

Stage point load limit: **450 kg (4.5 kN) – subject to venue discretion**

Stage rake: **No**

Stage Dimensions:

Setting Line: Down stage edge of stage

Distance From (*SL* = Setting Line, *CL* = Centre Line)

SL to DS edge of Orchestra Pit	4.2m
SL to rear wall	13m
CL to OP wall (or obstruction)	9.75m
CL to PS wall (or obstruction)	9.75m
Stage to underside of ceiling	See below

Overhead obstructions

There are (3) Flown ceiling sound panels that are electrically operated.

Panel 1(Chamber Music Position) [DS Panel] at lowest position:	8m
Panel 1(Chamber Music Position) [DS Panel] at highest position:	10m
Panel 2 [MS Panel] at lowest position to stage:	9.5m
Panel 2 [MS Panel] at highest position to stage:	10.6m
Panel 3 [US Panel] at lowest position to stage:	9.5m
Panel 3 [US Panel] at highest position to stage:	10.6m

Staging Notes:

Soundboard US Limit:	13m	from edge of stage
Soundboard DS Limit:	8m	from edge of stage
Wings US limit:	11m	from edge of stage
Wings DS limit:	4.5m	from edge of stage

Access to the FOH house catwalk system is via level six of the building and is subject to approval by venue Senior Technical Officer.

Stage Covers: N/A

Stage Traps:

4 traps on the downstage edge provide power and data only.

Safety Curtain: N/A

Flying Facilities:

The Hall does not have a flying system apart from the designated LX bars. Motors can be installed at a limited number of points. See Additional Rigging Notes.

Banner Bar:

The banner bar is attached to the moving sound board and is operated by a hand winch. It can carry banners and drapes including star cloths, cycloramas & chiffons.

Banner bar height at Top Dead is 9500mm from the floor.

Acoustic Panelling:

Type	Material	Colour	Width	Height	Quantity
Sound Board	European Beech Acoustic Wooden Panelling	Light wood	15.1m	10m	1
Wings	European Beech Acoustic Wooden Panelling	Light wood	3.4	10m	6 (3 per side)

Staging Units:

(40) StageRight riser decks. Double sided with black Polytrac hard surface, and black and grey pepper colour carpet surface.

Length: **1800mm (nominal)**

Width: **1200mm (nominal)**

Height: **80mm** (deck directly on floor)

Height on legs: **200mm, 400mm, 600mm to 1000mm (in 50mm increments)**

(8) StageRight riser decks. Double sided with black Polytrac hard surface, and black and grey pepper colour carpet surface.

Length: **1200mm (nominal)**

Width: **1200mm (nominal)**

Height: **80mm** (deck directly on floor)

Height on legs: **200mm or 400mm only**

For StageRight system

Limited 200mm & 400mm skirting available

Limited number of chair stops available

Back & side railings available

Treads to suit various heights

Various riser configurations can be constructed

(1) Megadeck riser with black carpet surface.

Length: **1100mm**

Width: **1000mm**

Height: **200mm** or **300mm**

Skirting available

Back railing available

Primarily intended as Conductor's Riser

Additional Rigging Notes

Other rigging points are available in the venue (FOH and Stage) and are evaluated on a case by case basis. Please contact the Venue Senior Technical Officer to discuss further.

Access Equipment:

Elevated Work Platform

Dingli MV075-E drivable lifter

Capable of lifting one person only

Maximum reach **9.5m**

Ladders

Bailey fiberglass Extension ladder 120kg max SWL

Ladder height **2.92m**

Maximum Extension height **6.4m**

Bailey Platform Ladder Fibreglass 5 step 150kg max SWL

Step ladder height **2.45m**

Platform Vertical height **1.43m**

Rhino double sided step ladder Fibreglass 4 step 120kg max SWL

Step ladder height **1.2m**

Reach height **2.6m**

Loading Dock:

Access

Access to Llewellyn Hall for touring rigs can be loaded through front door of venue. Goods can be unloaded from circular driveway on William Herbert Place (there is no Loading Ramp/dock).

Restrictions / Obstructions

Ramp/Incline to stage door from front door of venue: is approximately **25 Degrees**,

Corridor width: **1.7m at tightest doorway**

Corridor height: **2.2m at tightest point**

AUDITORIUM

Auditorium consists of stalls and a gallery seating area.

Stalls seating capacity with orchestra pit open **850**

Stalls seating capacity with audience seats on top of orchestra pit **960**

Gallery seating capacity **375**

Wheel chair allocated seating positions **8**

NB: If FOH stalls sound position is being used a minimum of **6** seats need to be removed from stalls. Usually 15 seats are reserved for this purpose until they are released by the production team.

Seating capacity with additional
Orchestra pit seating installed **1335**

Seating capacity without
Orchestra pit seating installed **1226**

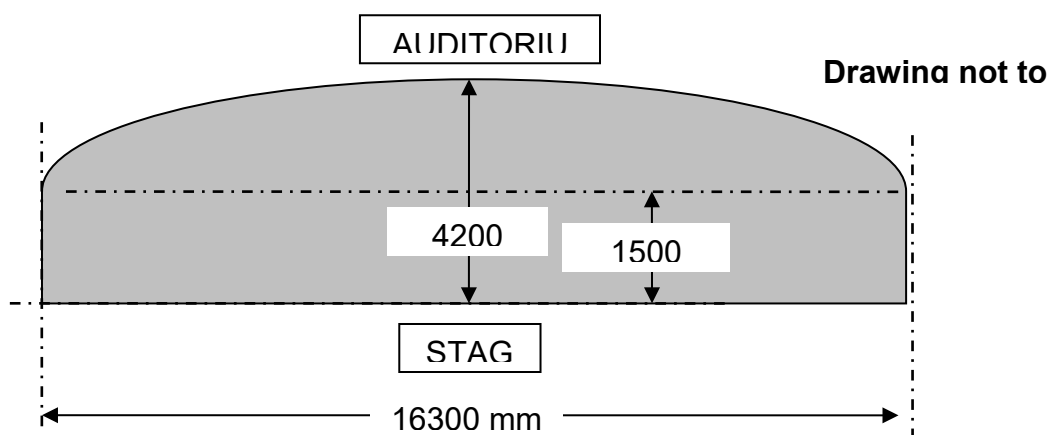
Orchestra Pit:

The Orchestra pit is covered with fixed floor sections that require four crew to remove.

Stage level above auditorium = **1000 mm**

Orchestra pit level below auditorium = **1100 mm**

Dimensions of the orchestra pit



Orchestra pit maximum capacity: **40**

LIGHTING**Positions:****Stage LX Bars**

There are 4 LX bars over stage, As the Sound Board is moved further downstage, access to LX 3 & 4 becomes restricted. The sound board cannot be moved when lanterns are rigged on LX 4.

Each lighting bar has a Rated Capacity (Working Load Limit) of 300 kg and a Maximum Point Load of 75 kg. The lighting bars on the FOH bridges have a rating of 45 kg/m

LX #1

Edge of Stage to lighting bar **1.850m (@ 9.5m)**
 Bar length **14m**

LX #2

Edge of Stage to lighting bar **6.2m (@ 8.39m)**
 Bar length **14m**

LX #3

Edge of Stage to lighting bar **9m (@ 10.36m)**
 Bar length **14m**

LX #4

Edge of Stage to lighting bar **11.950m (@ 10.29m)**
 Bar length **14m**

FOH Bridge #1

Edge of Stage to lighting bar **23.5m 47 degrees from edge of stage**
 Usable bar width **18m**

FOH Bridge #2

Edge of Stage to lighting bar **12.8m 57 degrees from edge of stage**
 Usable bar width **18m**

Balcony Bar

Edge of Stage to lighting bar **18.3m 21 degrees from edge of stage**
 Usable bar width **2x9m**

Notes: there are two balcony bars separated by a central concrete feature.
 See auditorium photo

Control:

Lighting desk ETC ION 2000
 Control channels 2048
 Signal output 2x DMX512 over XLR5, ArtNet & sACN
 Signal distribution 1 DMX universe with repeaters in Bio Box, Organ Loft & Dimmer Room. Upon request: 1x Quattro (XLR5), 1x OCTO (XLR5) 1x OCTO (RJ45)
 Remote rigger available onstage: YES, iPad with iRFR
 Control positions: Bio Box, Stage OP side, Stalls x2

House Lights:

Independent control YES – Controlled via Dynalite wall plates
 Control positions Bio Box, Stage Managers desk
 Fade time adjustable No – 4 second fade to (2) Show preset levels.

Dimmer Racks:

Total Dimmers (10) Jands WMX9 (digital) 12ch 2.4 kW dimmers
 Dimmers Location Level 7

Patching:

Location	#	Numbering (FOH: PS to OP Onstage: PS to C, mirrored C to OP)	Detail / Accessories
BRIDGE 2	20	80-61	Typically patched 61 - 80
BRIDGE 1	30	110-81	Typically patched 81 - 110
LX1	15	1-15	Typically patched 1- 15
LX2	15	16-30	Typically patched 16 - 30
LX3	15	31-45	Typically patched 31 - 45
LX4	15	46-60	Typically patched 46 - 60

There is a Jands PDS power distribution system located in the dimmer room. This system has 6 dedicated 20 AMP circuits.

3 Phase Outlets:

3x OP, 32A sockets, 2 metres above stage level directly beneath circuit breakers and link box. OP side next to Organ Loft.
 1x PS, 32A socket Upstage Prompt
 One 250A distribution board US OP (electrician required to access)

Powerlock:

Powerlock tails can be installed on this board with prior notice at cost.

Stage Luminaires:**Profiles**

Make	Model	Angle	Detail / Accessories	Watt	#
Martin	ELP WW	26 deg		LED - 270	10
Robert Juliat	ZEP2 661SX2 WW	11-26 deg		LED - 300	4
Selecon	80V Pacific	5 -13 deg		1200	7
Selecon	Pacific	12 - 28 deg		600	48

Fresnels

Make	Model	Angle	Detail / Accessories	Watt	#
Selecon	Arena 8"	7-60 deg	Barn doors/ Gel Frames	2000	14
CCT	Starlette 8"	7-50 deg	Barn doors	2000	2
Selecon	Compact 6"	7-50 deg	Barn doors/ Gel Frames	1200	26
Prolights	2KTW 6 Chip LED	17-76 deg	Barn doors/ Gel Frames	400	4

Par cans

Make	Model	Detail / Accessories	Watt	#
Generic	Birdie/par 16	Gel frames	50	6
Generic	Par 56	Short barrelled, gel frames various beam angles	300	14
Stairville	LED par	18x RGB	100	9
Showtech	Hex Par 12	10x 12w 6-in-1 RGBAW+UV LEDs Inc Barndoors	100	18
Prolights	Versapar Zoom		120	7

Followspots:

Make	Model	Angle	Detail / Accessories	Watt	#
Lycian	SuperArc		7 colour magazine	400	2

Cabling:

240v Extension Cable: Llewellyn Hall has a good stock of extension leads to accommodate the venue's standard lighting rig. Any additional equipment will require additional cable stock to be sourced.

DMX: Llewellyn Hall has a small stock of 3 & 5 pin DMX, sufficient for our standard rig. Any additional equipment will require additional cable stock.

Powercon/Truecon: Llewellyn Hall has a small stock of powercon & truecon. Any additional equipment will require additional cable stock to be sourced.

AUDIO

Control Positions:

Bio Box

The Bio Box is on Level 6 at the rear centre, behind gallery seating. There are inward swinging glass windows between the Bio Box & the house. Note: Access to control room from stage is via foyers and a lift, or four flights of stairs.

Hearing Assistance

Hearing assistance is provided by an FM personal induction loop system. Transmitter is a MiPro MTS-100T unit which broadcasts at 926 - 928 MHz. Audio is mixed from both the flown recording mic system and a separate full range output from the PA processors. This mix is fed as a mono feed to the transmitter above. 10 receivers are available for public use and are issued by FOH staff.

Auditorium

There are two mix positions within the stalls seating, FOH 1 is located in the centre of the stalls.
Seat allocation: seats **24-28** of rows **M, N, P** are required.
FOH 2 is located centrally at the rear of the stalls
Seat allocation: seats **22-26** of rows **V, W, X** are required.
Total seat allocation: Minimum of **6, 15 recommended**

Control & Amplification: -

FOH PA

FOH Left and Right L'Acoustics flown Kara (9 boxes per side) with 3x SB18's flown per side in Cardioid configuration.
Centre cluster L'Acoustics ARCS WIFO (3x Wide, 1x Focus) in vertical array.
6x L'Acoustics X8 as front fill and 2x X12 as stalls fill
2x SB28's per side available for deployment where required.
Enclosures are driven by LA4X Amplified controllers (SB28's use LA12X).

Foldback

(10) L'Acoustics X15HiQ Reference stage monitors
(2) L'Acoustics SB18 High Power Compact subwoofers
Sufficient LA4X Amplified controllers for one send per enclosure.

Mixing Consoles

Yamaha CL5, QL5 and QL1 Digital Mixing Consoles

Signal Routing

Redundant Dante network with two switches per network
3x Rio3224-D I/O racks

Microphones:

Make	Model	Detail / Accessories	Use	#
Shure Radio Systems	ULXD4Q	3 Quad racks totalling 12x Receiver channels	Receives microphone signal and outputs to DANTE	3/12
Shure/DPA	ULXD1/4066		Beltpack transmitters w/ headset mic	4
Shure	ULXD2/B58	B58 Capsule	Handheld transmitters	6
Shure	ULXD2/SM58	SM58 Capsule	Handheld transmitters	3
Selection of Shure and Sennheiser Instrument/Vocal mics		Contact Technical Officer for further details		

Accessories:

Item	Model	Detail / Accessories	#
Microphone Stand	Black K&M	Tall boom	20
Microphone Stand	Black K&M	Short boom	10
Speaker Stands	Hercules	Black/Yellow Friction/Pin system	4

Cabling:**Audio Cable**

The theatre has a good stock of Ethernet, XLR & NL4 to accommodate the venue's equipment. Various patch leads are available upon request.

Line Patching:

Location	#	Numbering	Detail
Mid-Stage Left (MSL)	8	9 -12 and 81 -84	8 sends
Mid-Stage Left (MSL) fold back	2	E,F	2 returns
Mid-Stage Right (MSR)	8	1-4 and 73-76	8 sends
Mid-Stage Right (MSR) Fold- back	2	A,B	2 returns
Prompt side fold back	2	AA BB	4 returns
Downstage Right (DSR)	12	13 - 24	12 sends
Downstage Right (DSR) fold back	2	G,H	2 returns
Downstage Right Centre (DSRC)	12	25 - 36	12 sends
Downstage Right Centre (DSRC) fold back	2	I,J	2 returns
Downstage Left Centre (DSLCL)	12	37 - 48	12 sends
Downstage Left Centre (DSLCL)	2	K,L	2 returns
Downstage Left (DSL)	12	49 - 60	12 sends
Downstage Left (DSL) fold back	2	M,N	2 returns
Orchestra Pit tie lines	12	61 -72	12 Sends
Stalls Fold Back sends (side aisles)	12	O - Z	12 Return Lines

Speaker Patching:

FOH speakers are in a LEFT, RIGHT and CENTRE cluster configuration.
The Speaker system is fixed and cannot be moved.
This is patched via the Organ Loft store room OP side of stage.
The amplifier rack (which functions as a system processor) is in the Organ Loft.

PROJECTION

Llewellyn Hall has a 16:9 projection system with up to two 20' x 11'3" Stumpfl front project screen. The system utilises 3G-SDI processing and cabling to transport the vision signal. A mobile control rack with vision mixing/routing control can be located at various points in the venue for operation. The screen is assembled and rigged as required and can be flown on any lighting. Please note that use of vision equipment is charged additionally to your hire if required.

Projectors - Installed

2x NEC PA804UL 8200 ANSI Lumen projectors with NP-43ZL lenses.

Projector - Portable

1x NEC PX803UL 8000 ANSI Lumen Laser projector with a variety of lenses.

Projector Control

IP based through a computer or venue iPad.
ArtNet through lighting console.

Screen

2x Stumpfl Monoblox64 20' x 11'3" 16:9 aspect front project screen with suspension clamps for rigging on lighting bars.

Signal processing

1x laptop or Qlab mac
1x Roland V-02HD two channel vision mixer with blackout and holding slide
More complex systems available upon request

SDI/Standards Conversion

Assorted Blackmagic SDI mini converters
3x Decimator MD-HX format converters
1x Decimator 12G Cross converter
1x Terranex AV

Patch Positions

For further detail about BNC patch points in the venue, Please contact the Technical Services Officer.

Operating positions

Vision operations can be positioned at various locations around the venue. Please contact the Technical Services Officer for further information.

BACKSTAGE**Communications:****Stage Managers Desk**

The Stage Managers desk is located on the OP(stage right) side of stage.
The desk can be moved within this area and is fitted with a light, clock, House and Work Lights control panel.

Talkback

Master Unit **ClearCom (MS-704) system - up to 4 loops**

Total sub stations **6 Belt packs**

Total headsets **6**

Talkback patching located at: **Organ Loft (Master Unit)**
Stage Manager's Desk
Control Room
Can be routed via house XLR patching
Can be routed to Followspots

Paging / Show relay

Separate announcement microphones to house, backstage and foyer are available at the stage managers desk.

House recall is operated from stage managers desk.

Stage Monitor

Stage-view LCD screen at SM position

Cue Light System

The is no in-house Cue Light System

Dressing Rooms:

Dressing Room	Capacity	Toilets	Shower	Details
Dressing Room 1 (11.9m ²)	3	1 Via Corridor	1 Via Corridor	Hanging Rack, Sink, Makeup Mirror, Power
Dressing Room 2 (10.5m ²)	3	1 Via Corridor	1 Via Corridor	Hanging Rack, Sink, Makeup Mirror, Power
Dressing Room 3 (10.8m ²)	3	Adjacent male & female	Adjacen t male & female	Hanging Rack, Mirror, Power

Laundry / Wardrobe:

Washing Machines	N/A
Dryers	N/A
Drying rooms	N/A
Iron / ironing board	1
Clothes racks	5
Steamer	2
Free-standing mirror	4

Production Facilities:

Production Desk: A production desk can be set up in (2) positions within the stalls.

WiFi: Guest access available upon request.

Production Office: Production office space is available upon request.

Phone: Access to a landline phone in Venue office. Outgoing international calls are not available.

Access to Ethernet for internet access: Access to hard-line internet uplinks can be made available on arrangement with Senior Technical Officer.

Greenroom:

Tea / Coffee facilities	YES
Fridge / freezer	YES
Microwave	YES
Running water	YES

Stage Door:

There is no stage door. Access for artists and staff is through the main FOH entrance or via rear loading dock.

Catering:

Hospitality Riders should be sent to the Events and Venues Production Coordinator at least 2 weeks before an event.

REHEARSAL SPACES**Rehearsal Room 1:**

10.6m x 10.6m, timber flooring, general fluorescent light.

Bookings required for use.

Larry Sitsky Recital Room:

22m x 9.5m, timber flooring (7m x 9.5m).

n.b balcony extends approx. 7m from auditorium door towards stage.

Bookings required for use.

Lighting Specifications:

General fluorescent light, in four banks, individually switched and dimmable

4 x 1K Theatre Fresnels, 2x 500w Patt 123 (non-dimmable, Off / On only)

4 x FOH: (2 x OP, 2 x PS), focused centre stage; 2x P123, US downfill

Audio Specifications:

4 x Yamaha MSR12 powered speakers, wall mounted only

1x JBL System Controller

1 x Yamaha 166CX Mixer with 12 Mic inputs and 2 stereo line inputs

1 x Sony CD Player

1 x XY pattern condenser microphone pair for recording

1 x HHB CDR-830 CD recorder

1x Marantz PMD580 Solid State Stereo Recorder

ADDITIONAL FACILITIES & INFORMATION

Instruments and other equipment:

- (2) Steinway Model D pianos. Tuning to be arranged prior to use.
- (1) Allen Renaissance Quantum Series Q-345C Organ
- (100) Wenger Classic 50® music stands
- (1) Wenger Preface™ conductor's music stand
- (45) "Tempo" adjustable orchestral chairs (black cloth)
- (280) Sebel "Optima" non-adjustable chairs (blue vinyl, blue cloth, black cloth, red cloth)
- Piano stools
- Adjustable stools
- Cello boards
- Cello donuts
- Instrument stands
- Polecats, cross arms and black draping

Acoustics**Reverberation Time in seconds**

Octave Band (Hz)

Seat Number	125	250	500	1000	2000	4000	8000
G10	2.660	2.277	1.861	1.893	1.861	1.650	1.158
G21	2.438	2.070	1.727	1.854	1.825	1.666	1.146
K10	2.786	2.182	1.845	1.898	1.897	1.676	1.196
L22	2.435	2.194	1.837	1.910	1.948	1.691	1.224
N20	2.323	2.163	1.803	2.028	1.900	1.655	1.244
Q10	2.964	2.370	1.875	1.977	1.882	1.676	1.236
Average	2.601	2.209	1.825	1.927	1.885	1.669	1.201
Std	0.224	0.094	0.049	0.058	0.038	0.014	0.038

Average
500Hz,1000Hz

	T30,mid
	1.877
	1.790
	1.871
	1.873
	1.916
	1.926
Average	1.876
Std	0.044

VENUE CONTACTS:

Venue Postal & Street Address:
Building 100, William Herbert Place, Acton, ACT 2601

Senior Technical Officer

Head of Lighting & Audio Visual Jed Buchanan

Email Address jed.buchanan@anu.edu.au

Resources Officer

Head of Staging

Email Address timothy.levy@anu.edu.au

Venue Manager

Email Address deanna.riddell@anu.edu.au

Production Coordinator

Email Address mandy.brown@anu.edu.au

Marketing Coordinator

Email Address mandy.brown@anu.edu.au

Canberra Event Manager

TICKETEK PTY LIMITED
Email Address actclientservices@ticketek.com.au

ADDITIONAL PICTURES:



Front of venue access



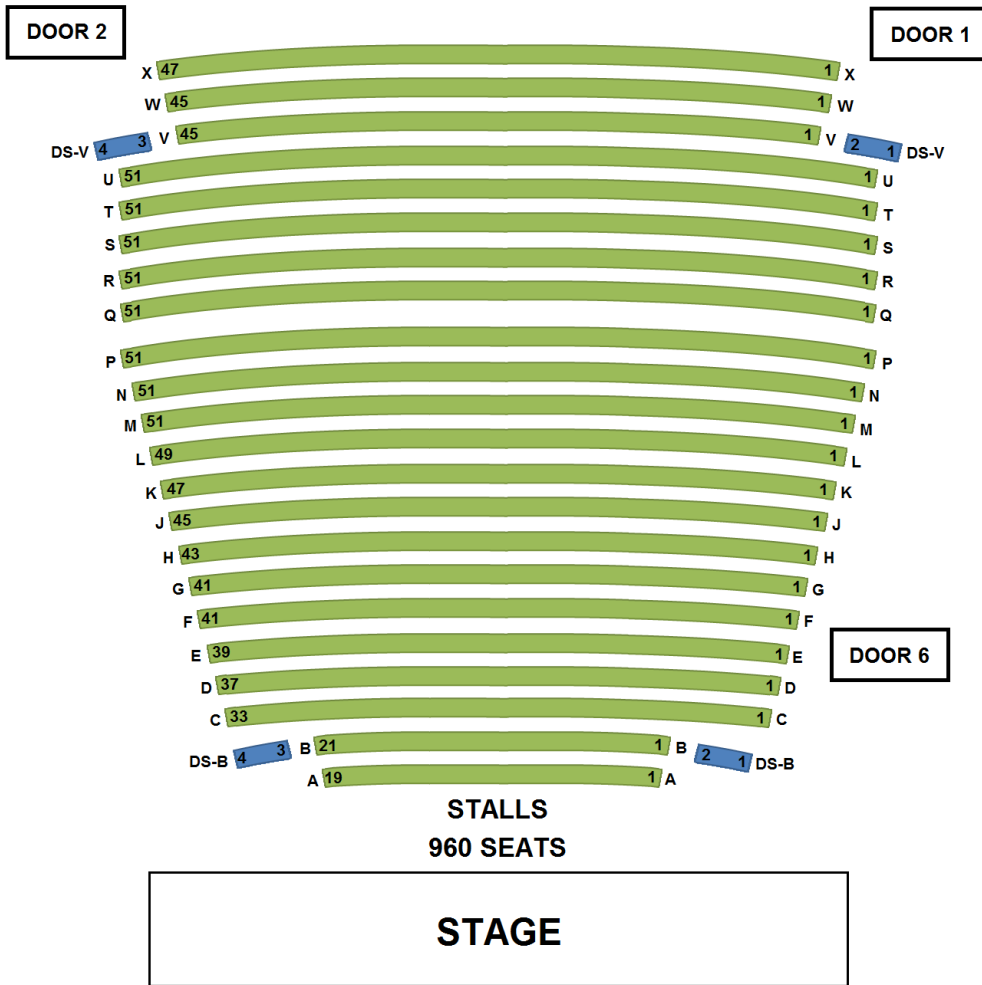
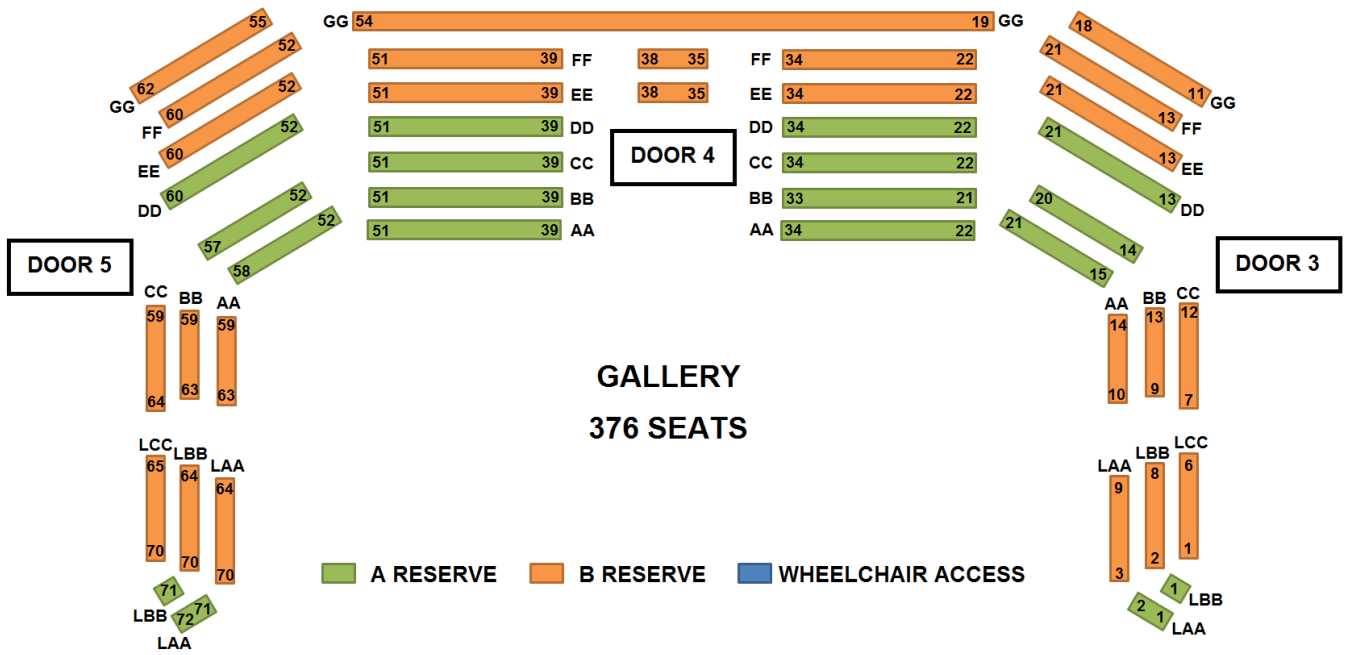
Auditorium



Stage Managers desk and Organ loft
(patch bay) OP side



Looking towards OP side showing
permanent side-panels and
moveable back-wall (with the
access-door to stage in the
background)



STAGE