REDLAND PERFORMING ARTS CENTRE

CONCERT HALL TECHNICAL SPECIFICATIONS

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GENERAL INFORMATION

THE CONCERT HALL

The Concert Hall is architecturally designed to offer exceptional acoustics while also facilitate to be a multi-purpose venue catering to various kinds of productions. The Concert Hall is a theatre style space with built in raked seating to accommodate 550 seats. The venue can also be configured in a concert style mode.

THEATRE ACCESS

The Concert Hall can be accessed either via the parking lot stage door, the loading dock or through the Concert Hall foyer.

LOADING DOCK

RPAC has two loading dock areas. For large trucks going to the Concert Hall, access to the dock is just past the courthouse but before the parking lot at the back of RPAC. For smaller vehicles, vans or trucks without a ramp or lift, access is through the parking lot and up the side of the building to the end.

Loading dock door: 3.2m wide x 4.6m high
Dock height from ground: 1.15m high
Stage loading door: 1.8m wide x 3m high

DRESSING ROOMS

The Concert Hall comes with two dressing rooms that can fit 15 people in each. Both dressing rooms include a stage feed monitor, audio relay, private shower and shared bathroom facilities. An additional dressing room or holding area space for up to 150 people can be allocated upon request, pending venue availability.

GREEN ROOM

The green room is located and easily accessed backstage near the dressing rooms, and has access to the Concert Hall foyer. This space includes a stage view monitor, audio relay, kitchenette with mini fridge, zip boil tap and a microwave.

DISABLITY ACCESS

The theatre and stage is at foyer level and is accessible to anyone requiring special access. Stage door also has a ramp linking back of house to the parking lot. An elevator is located in the foyer which moves between all levels. A lift is also available which can move performers into and out of the orchestra pit.

LAUNDRY FACILITIES

A washer and dryer are conveniently located between the two dressing rooms backstage, and are available for use. An ironing board, iron and garment steamer are also available on request.

AIR CONDITIONING

The stage, dressing rooms, green room and foyer are all air conditioned. Temperature is automatically controlled.

SMOKING

RPAC is a non-smoking venue. Smoking can only take place in designated smoking areas, one of which is located down the stairs outside of stage door.

WI-FI

RPAC has wi-fi that can be accessed from most areas backstage. The password can be supplied on request.

HEALTH & SAFETY

WORKING AT RPAC
As a requirement of using the space, anyone working at RPAC must adhere to safe work practices. A venue induction will be given to all visitors to RPAC before their performance commences which will explain the fire evacuation procedure and specific rules.

RISK ASSESSMENT
A risk assessment must be provided prior to arriving at RPAC. Failure to do so may cause delays on arrival.

TEST AND TAG
All electrical equipment being used must have an up to date test and tag. Any equipment that is not tagged will not be permitted to be plugged in. Some staff at RPAC are trained to issue temporary tags. If they are available, this can be organized for a fee.

NOISE LEVELS
Noise during sound checks and performances are closely monitored. If levels exceed 110db, and sound is being operated by a non-RPAC technician, a warning will be given to them. Failure to limit excess noise after this could result in a stopped performance.

FIRE RETARDANT
Any flammable set pieces must be sprayed with fire retardant before arrival to the venue. Set pieces that have not been protected this way may not be allowed on stage.

ISOLATING VENUE
RPAC is equipped with a smoke detection system. Using any type of stage atmospherics will require the venue to be isolated. Isolation can be done at any time for any length of time by the duty technician. If a visitor sets off the fire alarms as a result of using equipment before the venue is isolated, the accompanying fine will be passed on to them.

FIRST AID
All RPAC staff are first aid trained. A first aid kit is located in the tech office backstage, under the stage management console and in the green room.

ASSISTED HEARING SYSTEM
The Concert Hall is equipped with an infrared assistive hearing system. Hearing loops are provided to patrons who require them as they collect their tickets from the box office.

WORKSHOP
The Concert Hall has access to a small workshop with an assortment of hand and powered tools. All RPAC staff are trained to use these tools and can assist where required. Other competent persons may be allowed to use certain tools if required.

VENUE SETUPS

THEATRE MODE

This is the default setup for the Concert Hall. It includes full masking (legs, borders, house curtain, false proscenium and a cyclorama).

Stage Width US: 16.15m
Stage Width DS: 18.13m
Stage Depth: 12.45m
Height from Seats to Stage: 1.10m

If extra space is needed, the forestage can be brought up to stage level at the cost of max seating capacity.

CONCERT MODE

In this mode, all masking and the black weathertex floor is removed, revealing the Tasmanian oak acoustic walls. The orchestra pit is also brought up to stage level.

Stage Width US: 16.15m
Stage Width DS: 18.13m
Stage Width Pit: 13.47m
Stage Depth: 16.22m
Height from Seats to Stage: 1.10m

As concert mode is not the default configuration, setting up in this mode will incur an extra cost.

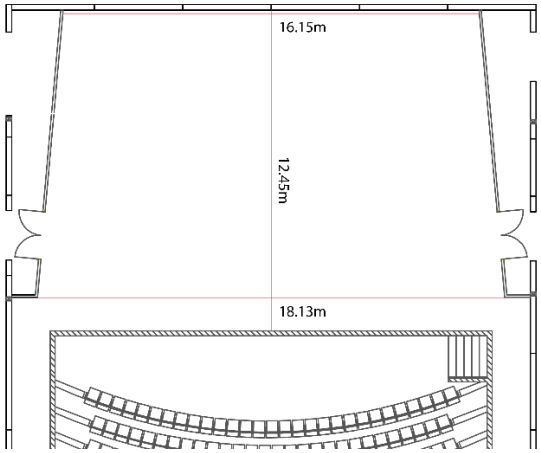
SEATING

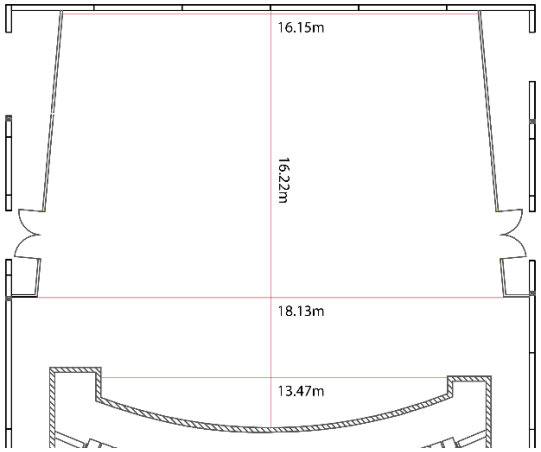
Depending on the stage configuration, the Concert Hall can fit the following number of seats:

Permanent Seats: 509
Removable Seats in Pit: 41
Total Seats: 550

THEATRE PLANS

Small versions of the stage and masking plans are in this document on page 9 and 10. Larger plans are available on request from the Technical Manager.





ACCOMODATING OTHER SETUPS

Depending on what is required, the Concert Hall can be configured in other ways not mentioned here. For example, the forestage could be elevated to stage level and seats placed onstage for a more intimate performance. Legs could be tied back to give extra room onstage for performances with large casts.

The Concert Hall is designed to be a flexible space and many other setups can be accommodated if required.

LIGHTING INFORMATION

LIGHTING FIXTURES

The following equipment comes as part of the Concert Hall's standard rig:
- *24x* 1k Selecon Pacific 14/35˚
- *6x* 1k Selecon Pacific 7.5/19˚
- *20x* ETC 750w 19˚ S4 Profile
- *6x* ETC 750w 26˚ S4 Profile
- *8x* ETC 750w 36˚ S4 Profile
- *2x* ETC 750w 50˚ S4 Profile
- *28x* ETC 750w S4 Par
- *24x* Selecon 80v 1.2k RAMA Fresnel
- *36x* ProShop HEX18 LED Par
- *14x* Selecon PLCYC2 RGBW Cyc Unit
- *2x* ProShop LED X-Blinder 4
- *2x* SGM X-5 Strobe
- *2x* RJ OX 600w LED follow spot

The following are some additional fixtures and equipment that can be hired at an extra cost:
- *8x* Martin MAC Quantum Profile
- *12x* VariLite VL770 Profile
- *1x* Martin Jem 365 Haze Machine
- *1x* Martin Jem ZR44 Smoke Machine
- *2x* Look Solutions Unique 2.0 Hazer

Various other lights not mentioned here are available from other RPAC venues upon request and pending availability.

RIGGING POINTS

The following points are available to rig lights:
- *5x* Overhead bars (16m wide, 24x outlets each)
- *1x* Orchestra bar (16m wide, 24x outlets)
- *1x* Lighting bridge (8m above centre of auditorium, 20m wide, 20x outlets and 2x 6-way socapex looms)
- *4x* Perch booms (2 each on OP and PS of auditorium, 6.3m tall and 4.6 apart, 6x outlets along each)
- *1x* Balcony bar (above last row of auditorium seats, 20m wide, 10x outlets along bar)

LIGHTING CONTROL

The following equipment comes as part of the Concert Hall's standard setup:
- *1x* ETC GIO with 4x10 Fader Wing
- *4x* dimmers racks located side stage
- *5x* distro racks located side stage
- *5x* dimmers racks located on FOH bridge
- *5x* universes of DMX distributed via ARTNET to the control room

The GIO is setup inside the control room at the back of the auditorium, but can be moved on request to onstage or the FOH position.

An iPad with the iRFR app is available for controlling any ETC console remotely via network.

BOOMS

A maximum of six booms can be setup if required. The boom bars sit at 3.25m tall.

GELS AND ACCESSORIES

RPAC has an extensive stock of gels which can be cut to various sizes on request. Anything that is already in stock can be used where required. Acquiring special colours will incur a charge.

Barn doors and gel holders are also available for all fixtures. Irises and gobo holders are available for all S4 and Pacific style fixtures.

HOUSE LIGHTS

The Concert Hall house lights are controlled via a Dynalite system. They can also be controlled via DMX though any lighting console.

LIGHTING PLAN

A small version of the lighting plan is in this document on page 11. A larger plan is available on request from the Technical Manager.

AUDIO INFORMATION

SPEAKERS
The following equipment is part of the Concert Hall's standard setup:
- *12x* D&B Yi8 loudspeakers for FOH PA
- *4x* D&B Yi subwoofers for FOH PA
- *6x* D&B E4 loudspeakers for front fill
- *4x* D&B 12S loudspeakers for side fill

MONITORS
The following equipment is available for use if needed:
- *10x* D&B MAX2 monitors
- *1x* D&B 18S subwoofer

AUDIO CONTROL
The following equipment comes as part of the Concert Hall's standard setup:
- *1x* Yamaha CL5 desk
- *3x* Yamaha Rio3224-D2 (32in, 16out)
- *1x* Yamaha Ri8-D (8in)
- *1x* Yamaha Ro8-D (8out)

MICROPHONES
All microphones are hired at an extra cost:
- *2x* Audio Technica ATM610
- *4x* Audio Technica ATM650
- *1x* Shure Beta 52s
- *1x* Shure Beta 56a
- *1x* Beyer M88
- *10x* Shure SM57
- *9x* Shure SM58
- *6x* Shure SM58a
- *16x* Audio Technica AT853
- *12x* Rode NT5
- *8x* Sennheiser e945
- *4x* DPA 4066
- *16x* DPA 4066-F
- *16x* Sennheiser SK2000XP belt pack

STANDS
Stands are available to use where needed:
- *8x* table stands
- *8x* round base stands
- *18x* short boom stands
- *25x* tall boom stands
- *2x* very tall boom stands

DI BOXES
An assortment of stereo and active DIs are available for use at an extra cost.

COMMUNICATION SYSTEMS
Talkback systems are available for use in all backstage areas of the Concert Hall. Several wired systems can be used and ports are located at all necessary areas on and offstage. Four wireless comms packs are also available which work reliably in all backstage areas.

PAGING SYSTEMS
A paging mic is located on the stage manager's desk, side stage on OP. It can be used to talk to all areas in back of house and also the dome room, where the follow spots are located.

AUDIO RELAY
All areas back of house, including toilets, are fitted with an audio relay. An atmos mic, located on the lighting bridge, feeds all audio from the stage to these rooms. Volume can be controlled via a dial located in each room, except for the toilets, which are adjusted from the control room.

SPEAKER PLAN
A small version of the speaker plan is in this document on page 12. A larger plan is available on request from the Technical Manager.

VISION INFORMATION

PROJECTORS

The Concert Hall does not come with any vision equipment as part of the standard setup. Any projectors must be hired at an extra cost.

Panasonic PT-DW11KE x 1
- DLP Projector
- 11k Lumens
- 1355x768 (16:9) resolution
- Fixed short throw lens (0.8 : 1 ratio)
- Short throw zoom lens (1.0-1.2 : 1 ratio)
- Long throw zoom lens (1.4-1.9 : 1 ratio)

Epson EB-2265U x 2
- LCD Projector
- 5.5k lumens
- 1920x1200 (16:10) resolution
- Default lens (1.38 : 1 – 2.28 : 1 ratio)

SURFACES

Projection surfaces must be hired at an extra cost, with the exception of the cyclorama which is a part of the standard setup.

Cyclorama
- Stretched white sheet on upstage wall
- At full size, the cyc is 16m x 8m, however, while considering the upstage curtain and borders in their standard position, the visible part of the cyc from the auditorium is 12.9m x 5.3m
- The upstage curtain can be brought in to shrink the visible portion of the screen to create a more desirable ratio

Stumpfl Screen
- Frame which can hold a front or rear projected surface, both of which are available
- The frame is attached to a border bar and rests 1.2m off the stage floor, with a skirt covering the gap
- 7.32m x 4.15m (24’ x 13’ 6”) 16:9 surface

SCREENS

For a portable option, some screens are available at an extra cost, all of which can be free standing or attached to a frame with wheels.
- *1x* LG 55” LCD TV
- *2x* LG 65” LCD TV

VISION SWITCHERS AND EXTENDERS

A Roland V800HD MKII Video Switcher is available for use at RPAC for an extra cost. It contains 4 inputs and 4 outputs through HDMI to DVI (cables are provided) as well as a preview monitor.

Several HDBT transmitters and receivers are available for use to extend HDMI signals over a long distance.

Some HDMI splitters are also available, which can be used to split a single HDMI signal to four separate screens.

VIDEO INFRASTRUCTURE

Cat5, HDBT, SDI and Fibre ports are located at convenient locations on and offstage. All signals go to a video rack in the control room with a cable travel distance of under 50m.

PLAYBACK

A MacBook Pro is available to use with the following AV playback software:
- *QLab 4* (free version, allows display of images and video without any manipulation. Full version can be hired at an extra cost)
- *ProVideoPlayer 2*

DVD and Blu-ray players are also available if required.

STAGE FEED

Monitors are provided in each dressing room and green room which have a view of the stage from the stage camera.

STAGING INFORMATION

VARIATIONS

The Concert Hall has two main variations. Theatre mode is the default, and Concert mode can be setup on request.

There is no fly tower in the Concert Hall, instead there are 14, motorised bars fixed above stage. These bars cannot be moved.

By default, the forestage is elevated to auditorium level to allow for an extra 41 seats. This forestage can be lifted to stage level or lowered into the orchestra pit at the cost of the extra seats.

STAGE FLOOR

The floor and walls are a light Tasmanian oak wood which are exposed in Concert mode. In Theatre mode, a black matte weathertex flooring is laid on top of the oak. This flooring can also be placed over the forestage if it is desired at stage level.

MASKING

Concert mode leaves the Concert Hall stage fully exposed. Theatre mode contains the following masking:
- *1x* False proscenium legs/border (blue silk)
- *1x* House curtain (blue silk)
- *3x* Borders (2m x 16m, black wool)
- *6x* Legs (8m x 4m, black wool)
- *2x* Tabs (8m x 9m, black wool)
- *1x* Cyclorama (16m x 8m, white cloth)

Border and leg maskings (legs 1 and border 1 for example) share the same bar, and have an offstage return to mask OP and PS side stage.

Additional legs are also available if extra masking is required. A 16m x 8m gauze is also available if needed.

MOTORISED FLYING AND RIGGING

The overhead stage bars are detailed below:

Weight limit: 500kg
Batten dimensions: 75 x 50 RHS
Batten length: 16m
Batten drift: 8m

2t chain motors are also available for hire if needed.

The Concert Hall also has 4x box truss and 4x triangle truss for hire if required. A professional rigger must install the truss if it is being rigged. RPAC can organise this at an extra cost.

STAGE RISERS

The Concert Hall has several 1m x 2m risers which can be hired at an extra cost. They can be set with legs at a height of either 300mm, 450mm or 600mm. Skirts, treads and kick rails are also provided.

TABLES AND ROSTRA

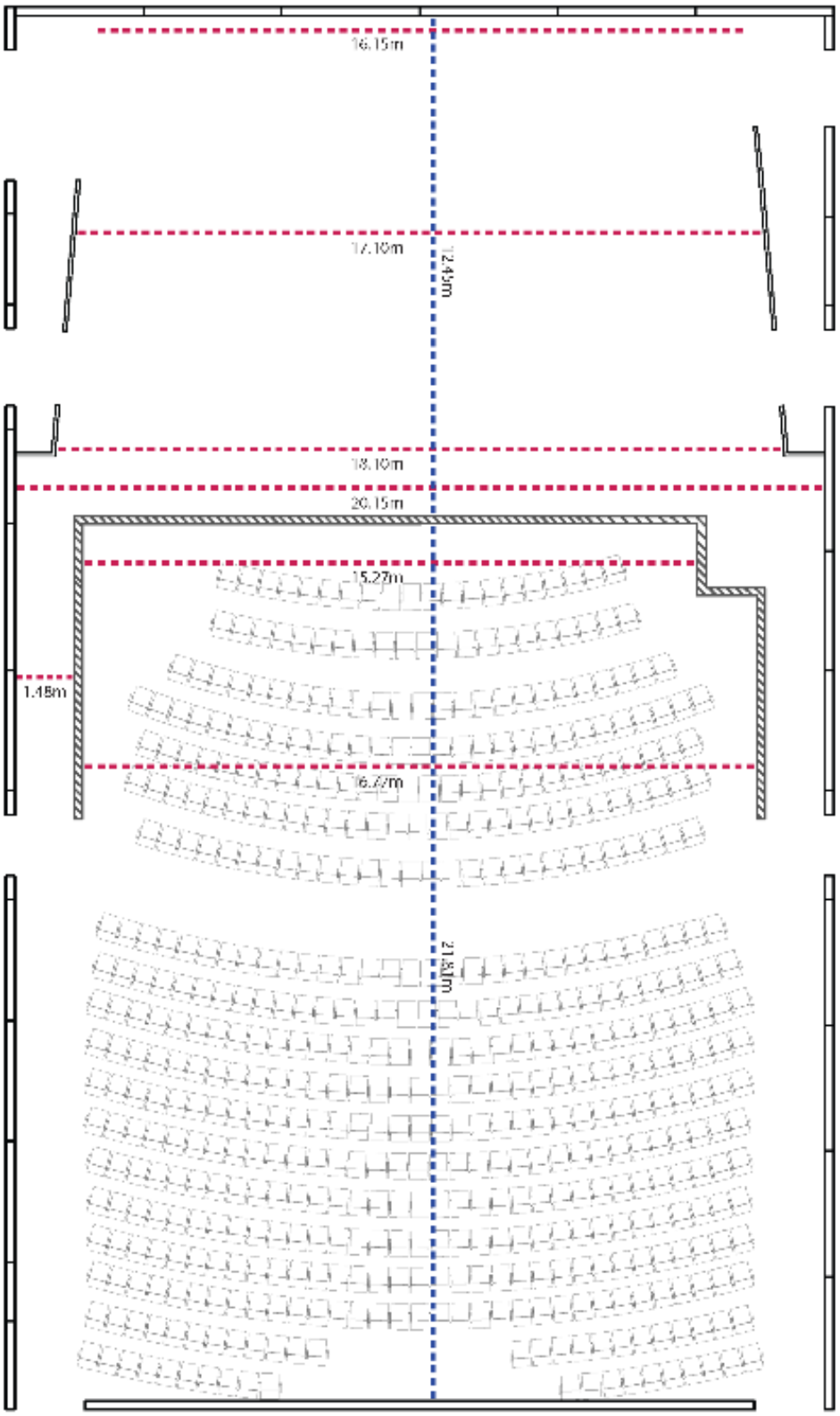
1.2m trestle tables and 0.75m square tables are available if required. Table cloths, if needed, can be hired at an extra cost.

A collection of rostra blocks and plinths are also available, but are in various shapes and sizes.

SCREWING INTO THE FLOOR

If necessary, screws can be used in the weathertex floors as long as they are no longer than 10mm. Where possible, sandbags are preferred and can be provided.

Under no circumstances can screws be put into the Tasmanian oak flooring or walls.



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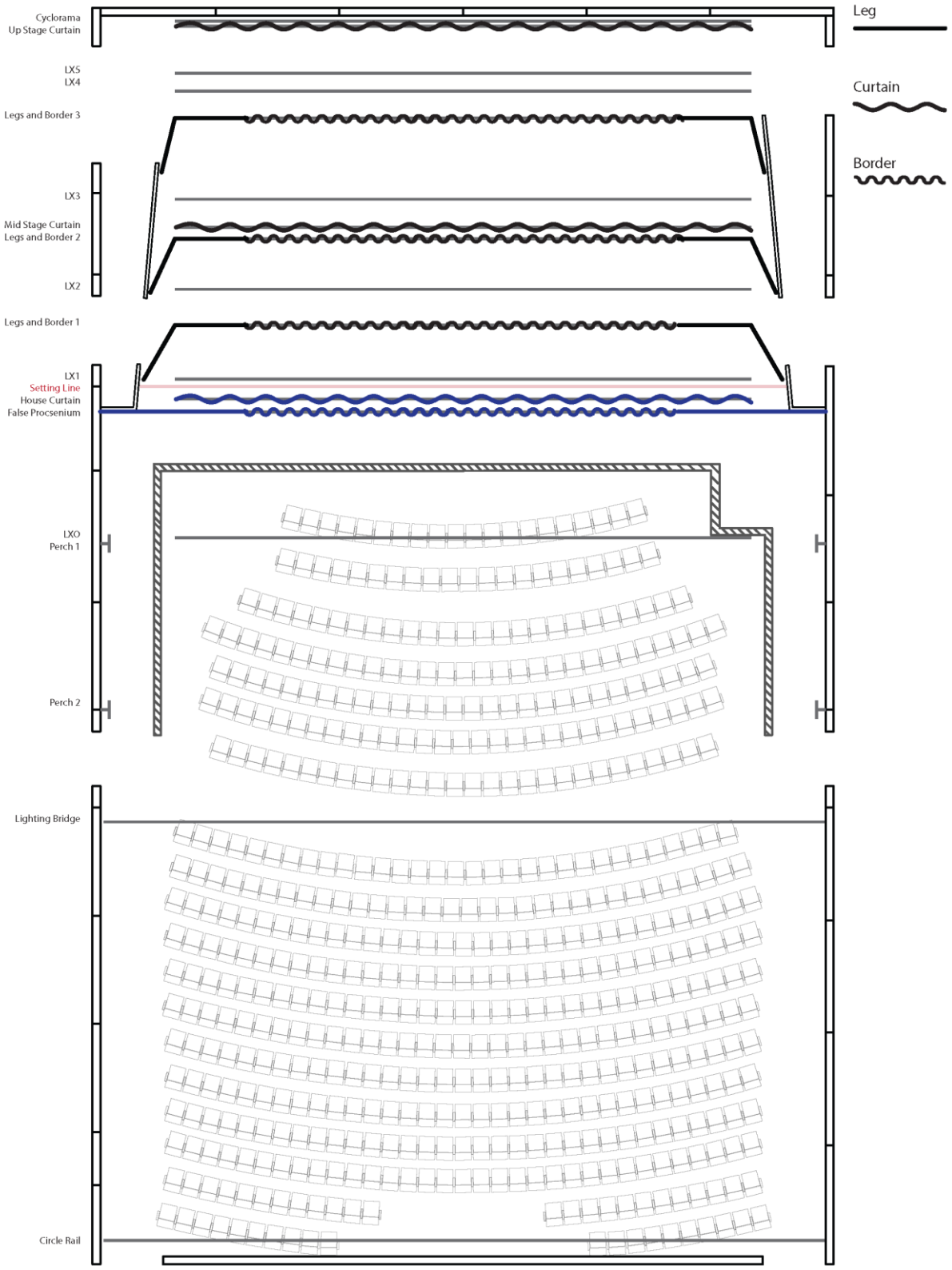
Drawing:	Concert Hall Measurements	Scale:	1:1
Plan By:	SB (02/2018)	Date:	14/05/20
Edit By:	KH (02/2020), JG (05/2020)	Version:	2020



Drawing:	Concert Hall Masking Plan	Scale:	1:1
Plan By:	SB (02/2018)	Date:	14/05/20
Edit By:	KH (02/2020), JG (05/2020)	Version:	2020

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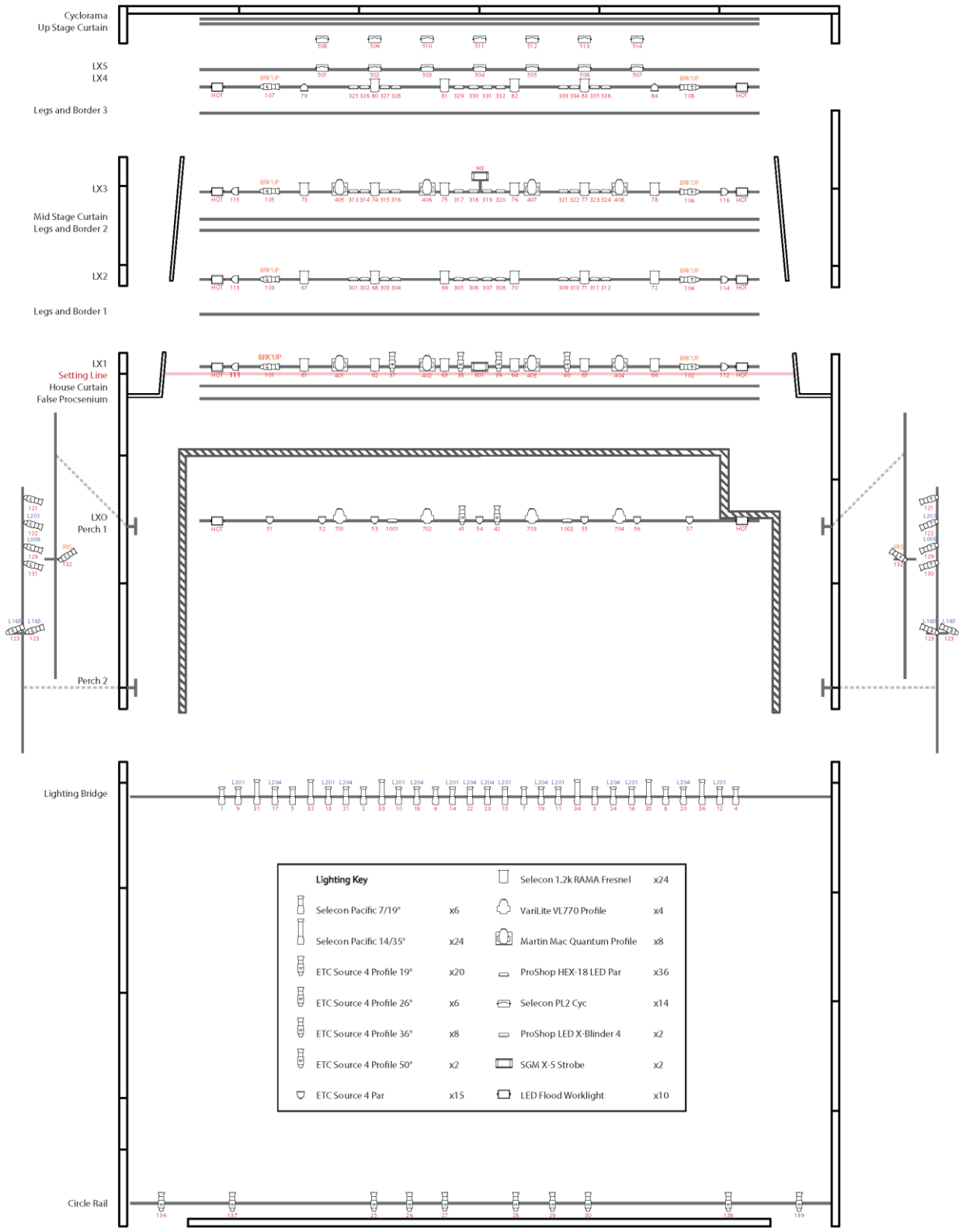

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Drawing:	Concert Hall Lighting Plan	Scale:	1:1
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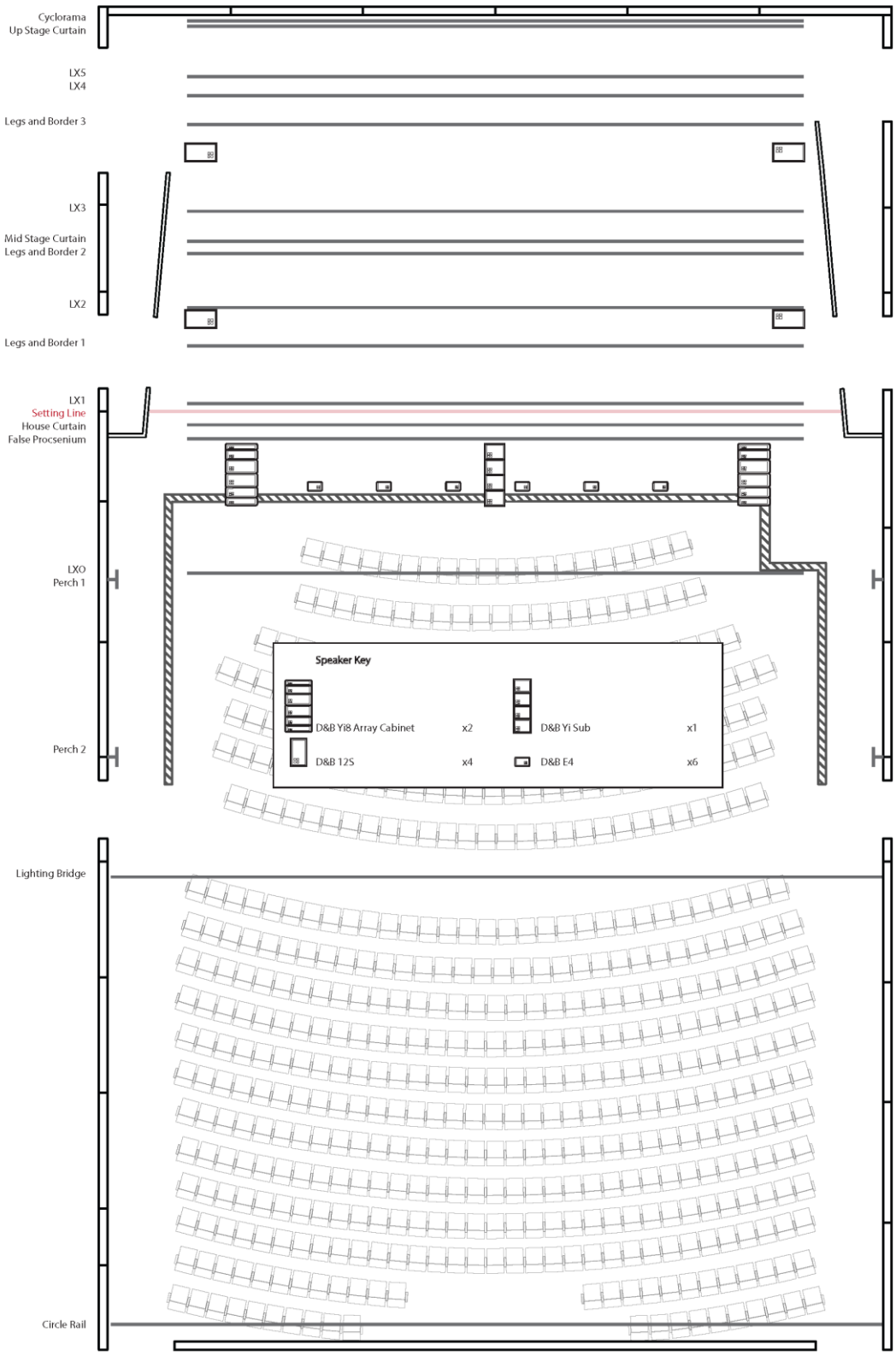
Edit By:	KH (02/2020), JG (05/2020)	Version:	2020



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Plan By:	SB (02/2018)	Date:	14/05/20
Edit By:	KH (02/2020), JG (05/2020)	Version:	2020

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