

# **MAIN AUDITORIUM**

# **TECHNICAL INFORMATION**

**April 2024**

Epsom Playhouse Ashley Avenue Epsom Surrey KT18 5AL

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## GENERAL INFORMATION

### Access

Dock door access is via shopping center delivery yard. The W3W are: count.oven.broke. We have right of access, but not right to park. Parking for a van is therefore likely, but not guaranteed.

Parking for private cars is not permitted (use public multi-story adjacent to the theatre). Private cars parked at the dock or in the yard will be fined or towed by the yard owners.

Dock floor is transit-van height. 6m flat run to stage.

### The Space

The Playhouse is an end-on proscenium theatre, with a courtyard-style auditorium (1 block of raked seating, aisles at the ends only, plus galleries the full depth of the side of the auditorium, perpendicular to the stage).

The auditorium seats 450 people in standard configuration, 432 people with the orchestra pit or 396 with the forestage in place.

Access to the auditorium from the foyer is to the left side of the auditorium at the front, and both sides at the rear via a crossover corridor outside of the auditorium itself.

The stage has limited wing space, a flat floor and hemp flying for scenic items. The scene dock opens into the USL corner of the back wall of the stage. Access is blocked when any scenic backdrop is flown in.

Lighting and sound control is from a room with opening window at the back of the seating area, auditorium left. Follow-spots are above this level, centered in the auditorium, and are on a perch that is open to the auditorium ie. not in a booth.

### Fees and Charges

For professional companies, technical fees and charges are dependent on contractual obligations, and are subject to discussion with the Theatre Manager and Technical Manager.

For private hirers, most of the infrastructure and equipment of the Playhouse is included within the basic hire fees, but certain items are subject to additional charges. Chargeable items are listed at the end of this document, and latest prices are available on the Playhouse website. For details of technical staffing for private hirers, please contact the Technical Manager.

## STAGE

Dimensions and flying plots on separate pages.

Flying height (max. height for a flown cloth) 5.3m. (Height to grid 10.9m)

Stage is flat, unraked.

Stage is covered in black Marley-type floor. Scenery can be screwed or nailed to floor in moderation. Fixings larger than ordinary screws are not permitted.

3 sets black borders and hard masking legs as standard.

Mid-stage black tabs permanently rigged on flown track. Rust velvet house tabs (drawn) electrically operated from prompt desk

White cyc permanent on furthest upstage fly bar.

**No onstage crossover behind cyc.** Crossover via building corridors (duration approx 30 sec.) unless drapes flown to create a crossover.

We have a **safety curtain** 2.5m upstage from the front stage edge (0.5m upstage of pros). This must be clear of fixed scenery or equipment at all times, and the curtain must be dropped at the interval.

Prompt desk stage right. Audio show relay and calls to dressing rooms. Comms to SL, lighting, sound, flies, followspots. CCTV show relay and pit/conductor relay to prompt desk, SL and SR wings, flies.

Paper plans available on request. Electronic stage groundplan, full auditorium groundplan, and sectional elevation are available from the technical section of the Playhouse website.

18 x standard stage brace & stage weight

Sets of drapes available : black, red, oyster, blue, gold. Black and white gauzes.

Rostra (staging) available : 1.2 x 2.4m sections, 4 at 15cm high, 4 at 30cm high, 4 at 45cm high  
8 pieces litedeck 8x4 units with a range of legs

### Flying

LX bars on electric winches, 5 of 300kg each in fixed locations over stage, plus 2 advance bars. Bar length 10m

Scenic flying on manual hemp sets. 20 of 250kg each. Bar Length 10m, not extendable.

Realistically, weights in excess of 150kg cannot be lifted manually on hemp sets. Weights from 75kg upwards cannot be flown smoothly.

### Orchestra Pit

11m x 3m, 2m deep (ie floor 2m beneath stage level).

Conductor's rostrum 0.2 or 0.4m high, 1.2m square.

Illuminated conductor's music stand.

18 x illuminated music stands.

CCTV camera to show conductor on monitors in wings, at prompt desk and on 2 gallery-mounted screens.

Access to pit through auditorium only.

Use of pit requires removal of first row of auditorium seating (18 seats)

## STAGE

### **Forestage**

11m x 2.5m stage extension in front of standard apron. Litedeck construction – unsprung ply on metal frames. Ply painted matt black. Black Marley floor covering available.

Use of forestage requires removal of first three rows of auditorium seating. (54 seats)

Note that forestage front edge is in front of main PA speakers and advance lighting bars.

### **Access Equipment**

14 - rung Tallescope

12 - rung Zarges Skymaster 3-part A-frame ladder

8 - rung A-frame ladders (3 of)

## STAGE : MAIN DIMENSIONS

Pros.	Width	11.5m	37' 9"
	Width (between tormentors)	9.1m	29' 9"
	Height	4.97m	16' 4"
Back wall to :	Safety Curtain	6.85m	22' 5"
	Pros.	7.83m	25' 3"
	Stage edge	9.35m	30' 8"
	Forestage edge	11.87m	38' 11"
Width between :	Fly floors	11.2m	35' 9"
	Columns	14.35m	47' 1"
Wing Depth :	SR	3.2m	10' 6"
	SL	1.64m	5' 4"
Height :	Grid	10.88m	35' 8"
	Under fly floor	5.18m	16' 9"
	Into wings	2.1m	6' 10"
Get – In	Width	1.5m	4' 11"
	Height	2.9m	9' 6"

# HANGING PLOT

PRODUCTION :

DATE :2024

BAR	HANG	DISTANCE FROM PROS (m)	DISTANCE FROM STAGE EDGE (m)
22	Cyc - permanent	7.60	8.92
21	Full Blacks	7.40	8.72
20		7.20	8.52
Winch	Cyc LX	6.90	8.22
19		6.60	7.92
18		6.40	7.72
17		6.20	7.52
Winch	LX4	6.03	7.35
16		5.80	6.12
15		5.60	6.92
14		5.38	6.70
13		5.15	6.47
Winch	LX3	4.93	6.25
12		4.63	5.95
11	Black Tabs - permanent	4.25	5.57
10a	Border - permanent	4.20	5.52
10		3.98	5.30
9		3.63	4.95
8		3.43	4.75
Winch	LX2	3.18	4.50
7		2.85	4.17
6		2.68	4.00
5		2.48	3.80
4		2.27	3.59
3		2.07	3.39
2	Cinema screen - permanent	1.87	3.19
Winch	LX1	1.62	2.94
1		1.32	2.64
0	House border - permanent	1.07	2.39

SWL : Hemps 1-10, 12-22 : 250kg  
 All LX winches : 300kg  
 11 handwinch : 225kg (permanent tabs)  
 0 and 10a : 50kg

All bars are 10m long and cannot be extended.

**NOTE :**

Allow for borders DS of LX 2, 4 and cyc LX bar plus masking for any flown pieces.  
 If possible leave 1 bar each side of each LX bar empty to avoid snagging flown pieces on lanterns.

# LIGHTING

## General

Standard rig of fresnels and profiles overhead, profiles FoH, and source four PARs on booms. (See plan on separate page).

Booms are permanent, and cannot be moved.

LX bars on electric winches, 5 of 300kg each. Onstage and advance bars are 10m wide ladder bars. Winches are in fixed positions (see hanging plot).

Small stock of lanterns additional to those in the standard rig.

Stock of Lee filters (101-205), cables, grelcos, gobos, gobo holders etc.

186 x 2.4kW dimmers. 6 x 4.8kW dimmers.

ETC ION xe 20

DMX control. Facility to patch touring desks to DMX in control room, auditorium, FoH sound position or at prompt desk. Houselights are either manual control (stage, control room) or DMX via HTP merge.

2 x DMX lines from control room to dimmer room, patchable via splitters to both fly floors, both wings (US and DS), onstage LX bars and booms (all bars on 1 feed), each advance bar (individually), LX bridges and pit. Either DMX universe may appear at any point, but not both universes. 2 further DMX lines from control room direct to SR fly floor.

2 x Pani HMI 1200 followspots on perch at rear of auditorium, with view of whole stage (but max height of 2m above floor upstage)

Production desk position in mid stalls with mains power, 2 x DMX line, 2 x Cat 5 line, comms, cuelight, houselight control, working light control and audio tieline.

## Touring Power

63A single phase supply in stage left wing. 63A or 32A Ceeform connectors (nominally 'sound power').

100A 3-phase supply in stage left wing. 125A or 63A Ceeform connector (No facility to 'tail in'). This supply is shared with house dimmers for onstage booms and advance LX bars.

63A 3-phase supply on LX floor, (SR fly floor). Ceeform connector. 16A feed to each LX bar, boom and stage floor corner. Distro for same on 18 x 10A trips

## Standard LX Circuits / Patch

Bar	No.of Outlets	No. of circuits used in Std Rig	No. of extras circuits patched
Bridge 1	10	10	0
Bridge 2	3	3	0
Advance 1	12	2	0
Advance 2	12	0	0
LX 1	12	2	0
LX 2	12	2	2
LX 3	12	2	2
LX 4	16	8	9
LX 5 (cyc)	4	4	0
Floor Dips	24	0	24
Stage Booms	6 each	2 each	0
FoH Booms	5 each	3 each	2

Onstage booms and advance bars are fed from a 48-channel patchable rack. With standard patch, 12 channels are spare. These sockets are fed direct from patch panel in dimmer room

Circuits 151-198 (LX3, 4, dips, spares) are fed from 63A 3-phase on LX floor. These cannot be used to full capacity simultaneously.

The 6 x 5kW dimmers in the main system have outlets on the LX floor for LX 5 cyc battens (4cct) and 2 spares.

LX 1-4 & cyc lx multicores run off SR to LX floor patch panels.

FoH bridges and high sides are hardwired to dimmers.



**Lantern List**

Unit	Qty in Std Rig	Qty Extra	Beam Angle	Wattage	Weight (kg)	Colour size (mm)
Sil 25*	12	0	16-32	1000	13.9	240
Selecon 15/30*	8	6	15-30	1200	14.5	180
Source 4 Zoom 15/30*	16	0	15-30	575	9.5	180
Harmony 22/40*	8	0	22-40	1000	12	180
Sil 30	4	9	22-40	1000	11.1	180
Source 4 zoom 25/50	4	3	25-50	575	9.5	180
Minim 23	0	4	20	500	4	120
Patt 23	0	4	20	500	4	100
Patt 264	0	2	17	1000	7.5	160
ETC Color Source Fresnel V	24	0	13-44	147	6.24	180
Patt 743	8	0	15-82	1000	10	210
Patt 243	4	6	16-50	2000	16	290
Minim F	0	2	13-65	500	3	120
Source 4 PAR	24	49	See note	575	3	180
Coda 4	10	10		4 x 500	16	210 x 235
ETC Colour Source Par CE	16	0	14.5	89	3.8	180

Source 4 PAR lenses : equivalent to CP60 (VN), CP61 (N), CP62 (M) and CP95 (W).

All fresnels have barndoors.

Gobo holders in A & B sizes, but not 1 of each per lantern. 7 x

Source 4 iris

6 x Silhouette iris 4 x

Harmony iris

**\* Note that all FoH and boom profiles form a fixed rig and cannot be moved. Auditorium side Sil 25s are also fixed focus.**

**Smoke and Haze**

2 x Unique Hazer

2 x Fog Fury LED effect smoke machines

## SOUND

We find that our house system is suitable for spoken word, vocals, and jazz groups or small 'big band' type bands, but is NOT suited to 'rock-and-roll' type shows.

### Front of House

2 x QSC RMX 1450 amps drive 1 x Martin F12 per amp/channel – 1 flown at pros height, 1 at gallery floor height.

1 x QSC RMX 1850 amp drives 1 x Martin S218+ bass unit per channel

1 x Yamaha XP5000 amp drives 4 x Martin DD6 front fill

1 x Yamaha XP5000 amp drives 4 x Martin DD6 balcony fill (L & R, upstairs and downstairs)

Combined system power 1400 Watts per channel

Front of house system is permanent and not movable.

Front of house mix has Allen & Heath iDr8 controller set for EQ and delays. This is not adjustable. A secondary 31-band EQ is in-line between mix out and controller in, for user adjustment of system EQ.

### Foldback

3 x 350 W / channel amps

6 x Martin F10 / F12

2 x JBL wedge monitor - 15" + horn

4 x Martin DD6 mounted on FoH and MS boom each side for playback

### Mixing

Allen & Heath SQ7 32ch, permanently situated in a control room at the back of the auditorium, with an opening window.

A second mix position is available for companies' own mixing desks at the rear of the auditorium on the auditorium right side gallery. This can be fed by a 12 send, 4 return multicore from the main house patchbay if required. 4 x Cat 5 lines to control room patchbay.

### Microphones

6 x AKG C451 / CK1 cardioid condenser

3 x Beyer rifle condenser

3 x Sennheiser MD 451

5 x Shure SM58

2 x Shure SM57

5 x EMO passive DI

Shure PG Drum mic kit (3 x snare/tom + kick)

8 channels Sennheiser EW300 UHF radio mic system  
(8 belt-pack, 4 hand-held transmitters)

### Playback / Outboard Signal Processing

2 x CD

1 x Mac computer running QLab 3

2 x effects unit (Lexicon MX300)

2 x Alesis 3630 Dual channel compressor/limiter

1 x SD/USB recorder (Denon)

All equipment in control room only.

# SOUND

## Tielines

60 audio tielines from stage to control room.  
Additional 30-way stagebox available.  
10 tielines from orchestra pit to control room.

## FoH Mixing (for companies' own desks)

Position is at rear of auditorium, on the **auditorium right (SL) edge, just outside of the line of the pros opening**. Central position is not possible.

Flat floor area 2m wide by 4m deep.

Manual lifting of equipment up auditorium stairs from stage to mix position.

Multicore run to stage : 30m.

12 send / 4 return multicore to main sound patchbay.

4 x Cat 5 line to control room patchbay

2 x Cat 5 line direct to DSL wing

Feeds to either complete house system, or individually to amps for bass, front fills etc but with no processing.

## Touring Power

63A single phase supply in stage left wing. 63A or 32A Ceeform connectors (nominally 'sound power' but may be made available to lighting).

## Production Network

Network points (2 x RJ45 line on Ethercon connectors each) appear around the technical areas, returning to a patch panel in the control room. A network switch is available at the patch panel position.

Network points are located :

- Control room (LX desk)
- Control room (sound patch panel)
- Projection room
- FoH mixing desk position (4 x lines)
- DSR wing
- DSL wing
- Orchestra pit
- Production desk
- Front lighting bridge
- LX Floor

2 further lines run from FoH mix position direct to DSL wing.

Cinema screen permanently mounted on electric winch on line 2, tensioned to steel framework.

Screen dimensions : 7m x 3m      High-gain, perforated surface. (Front-projection only)  
Variable width screen masking

(It is rarely practical to fly the screen in and out during a performance. The screen travel time is approximately 1 minute, and the house border must be reset between screen use and stage use.)

### **Other Projection**

Hitachi data projector – 7000 lumen – 4:3, 1024x768 - medium zoom lens and wide fixed lens, with flying/hanging mount. VGA / HDMI / BNC (analogue) / Phono inputs

Macbook running Qlab 3 with video licence

Portable 2.4m (8ft) square projection screen (tripod legs, front-projection only)

Fast-fold screen, 4:3 format, front and rear surfaces. 3.2 x 2.25m (10 x 7.5ft)

## DRESSING ROOMS

1 & 2 (downstairs) : capacity 20 each.      Each with separate shower/wash room

3 & 4 : capacity 8 each.      Each with inbuilt shower & washbasin

5 : capacity 30.      No washing facilities

Total capacity : 86 persons.

General backstage ladies & gents toilets (no toilet facilities in dressing rooms)

No company office. No green room.

Domestic washing machine & tumble dryer. Iron & board.

Audio show relay and calls, and video relay, to all dressing rooms.

Dressing rooms all located to stage right side of stage, with corridor access to stage left.

Downstairs dressing rooms have flat access to stage right wing. Steps in corridor to stage left.

Staff kitchen available to visiting companies. Fridge, microwave ovens, tea/coffee facilities.

## CONTACTS

Harry Palmer            Technical Manager  
Cara Moulton           Technician

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## CHARGEABLE ITEMS FOR PRIVATE HIRERS

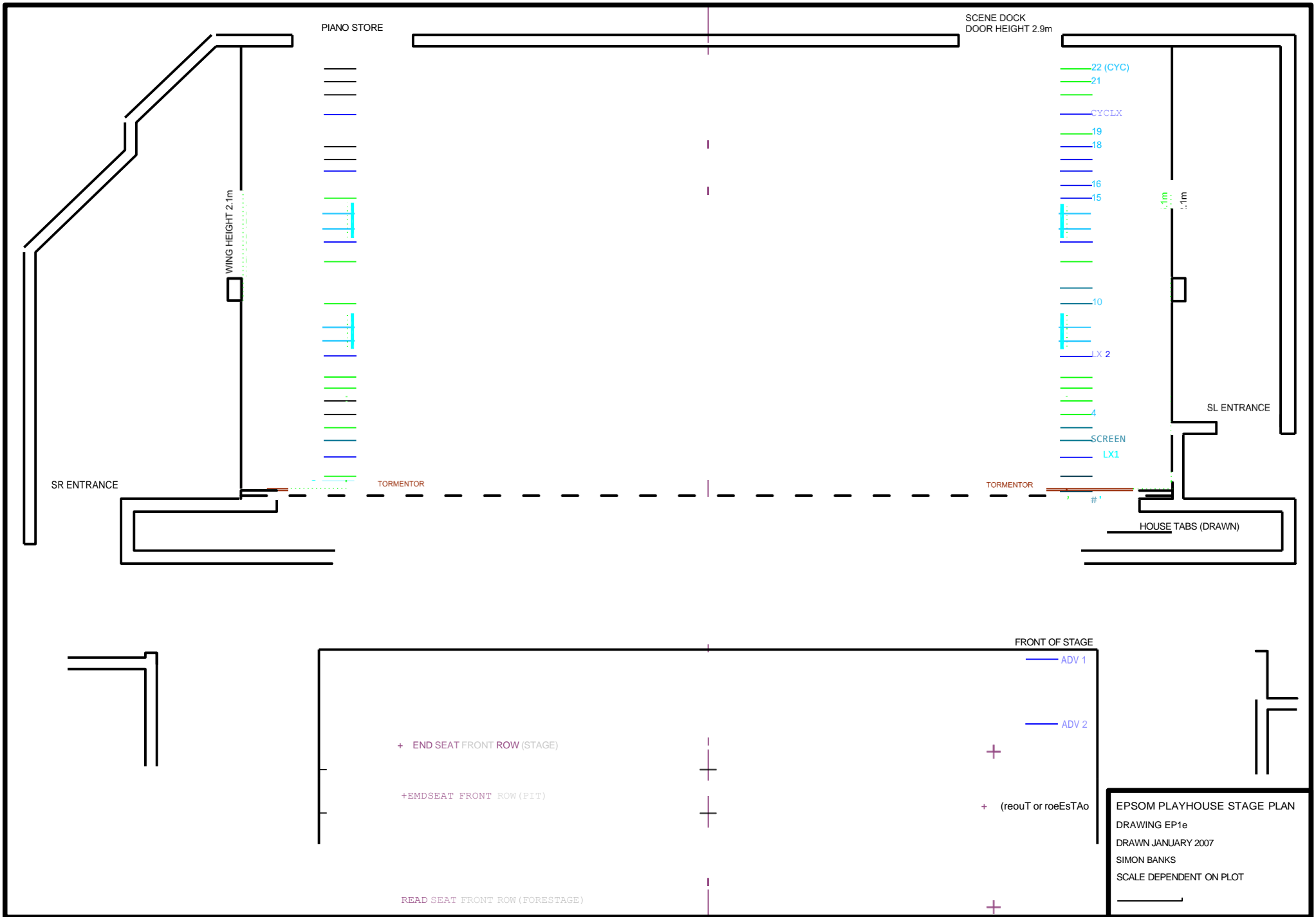
Technical items which incur additional fees for use :

Steinway Grand piano  
Tuning of piano

Floor format changes (orchestra pit or forestage)

Radio Mics  
Hazers  
Smoke machines  
Data projector  
Additional Staff  
(one is included in  
every hire)

Current hire charges are available from the technical section of the Playhouse website.



SCENE DOCK  
DOOR HEIGHT 2.9m

PIANO STORE

WING HEIGHT 2.1m

SR ENTRANCE

TORMENTOR

TORMENTOR

SL ENTRANCE

HOUSE TABS (DRAWN)

FRONT OF STAGE

ADV 1

ADV 2

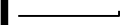
+ END SEAT FRONT ROW (STAGE)

+EMDSEAT FRONT ROW (PIT)

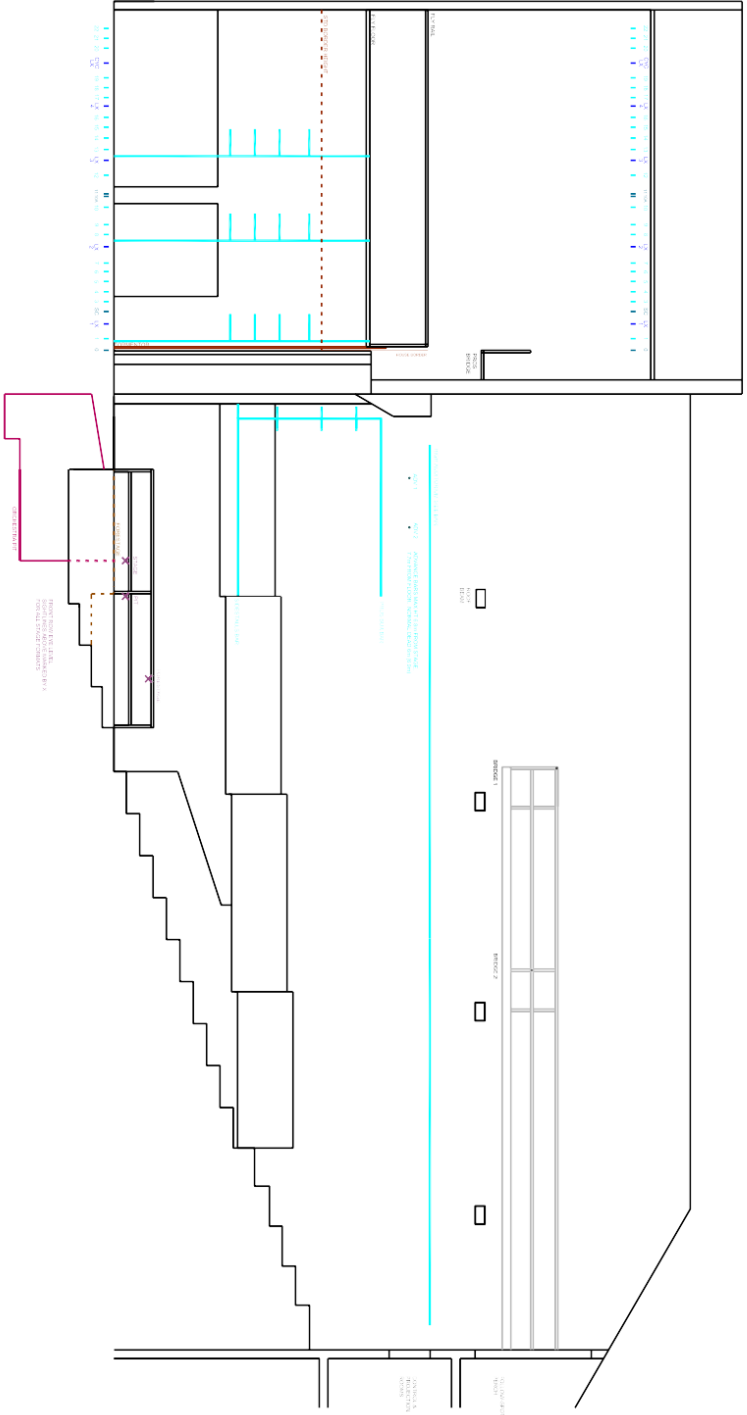
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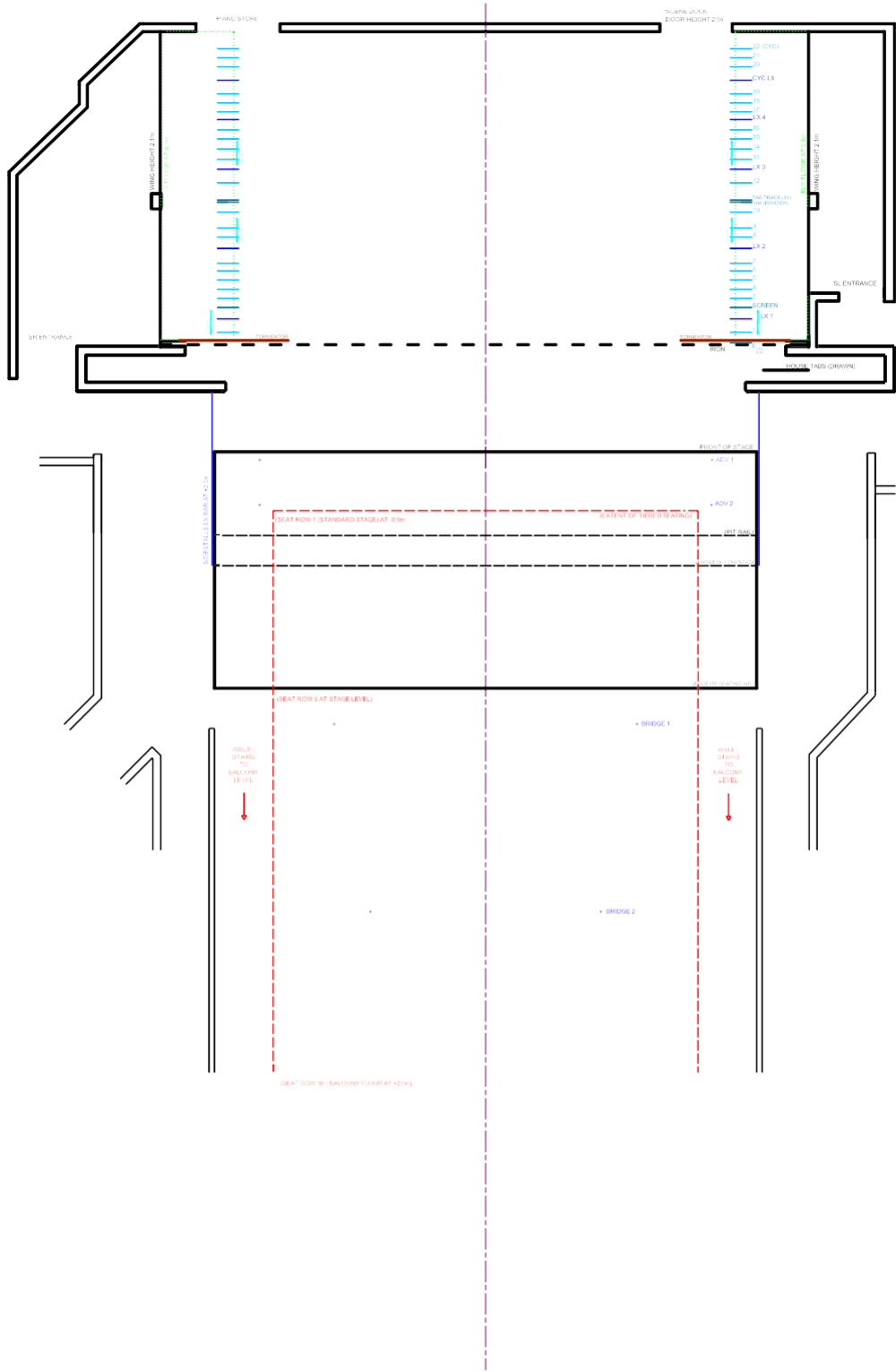
EPSOM PLAYHOUSE STAGE PLAN  
DRAWING EP1e  
DRAWN JANUARY 2007  
SIMON BANKS  
SCALE DEPENDENT ON PLOT







**EPSON PLAYHOUSE AUDITORIUM SECTION**  
DRAWING EP3  
DRAWN JANUARY 2012  
SIMON EVANS  
SCALE DEPENDENT ON PLOT



**EPSOM PLAYHOUSE AUDITORIUM PLAN**

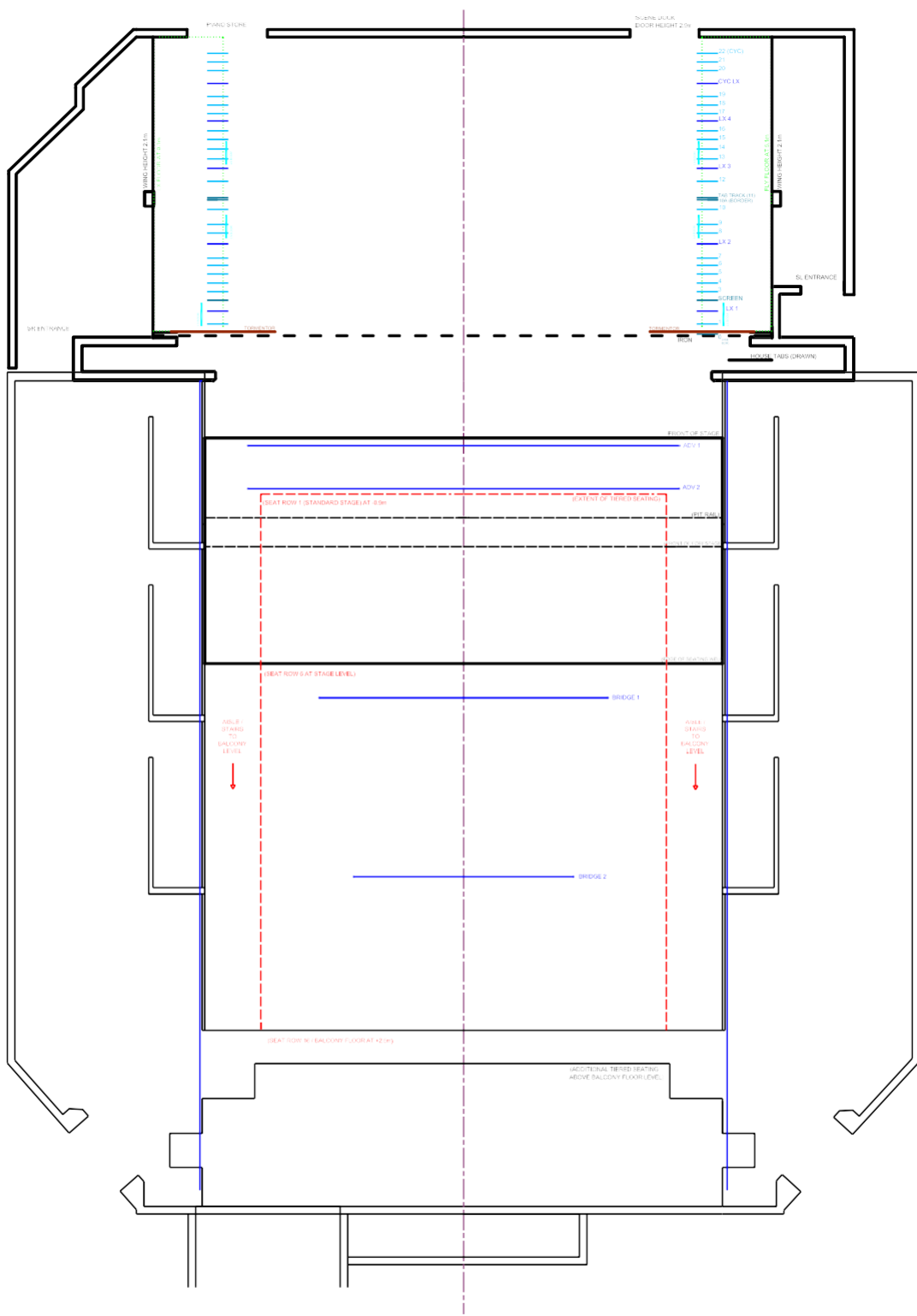
DRAWING EP 2 : GROUND LEVEL

DRAWN FEBRUARY 2013

SIMON BANKS

SCALE 1:150 AT A4





**EPSOM PLAYHOUSE AUDITORIUM PLAN**  
 DRAWING EP 2 : BALCONY LEVEL  
 DRAWN FEBRUARY 2013  
 SIMON BANKS  
 SCALE 1:150 AT A4