

MAIN AUDITORIUM

TECHNICAL INFORMATION

September 2025

Epsom Playhouse Ashley Avenue Epsom Surrey KT18 5AL

Technical Office 01372 728887

playhousetech@epsom-ewell.gov.uk

Dock Door [count.oven.broke.](#)

Stage Door: [indoor.scarf.stocks](#)

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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 - permanent	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 Mid Stage 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

A standard rig of ColourSource Fresnel' Vs and ColourSource Spot Vs overhead and FoH, ColourSource PARs on booms. The standard rig spans over 3 universes with Dimmers and House Lights on universe 1 (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.

2 x ETC Sensor3 racks (dimmer room SL)

1 x 96 ways x 28Relay and x 68 relay/Dimmer modules.

1 x 48 ways x 48 relay/Dimmer modules.

2 x 24 way ETC ColorSource racks on the LX floor SR (Through Power Dimmers)

A patch sheet is available and DMX addresses 1/1 – 1/205 must be patched at FULL and Parked as this controls the relay modules.

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.

4 x DMX lines from control room to dimmer room, patchable via splitters to, both wings (US and DS), onstage LX bars and booms (all bars on 1 feed), each advance bar (individually), LX bridges 1 and 2, pit, Side Shelves, Pross boxes, Pross wall, Pros floor and Spot perch. An additional Artistic License 12 way node is also available (Standard configuration of 1-12 universes)

The Network patch consists of: 4 Cat 6a ports in the control room, 2 Cat 6a ports at FOH mix, DSL and DSR and LX Floor (SR) These all feed back to the Dimmer room and are patchable via a Network switch.

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, 4 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	8	0
Advance 2	12	0	0
LX 1	12	8	0
LX 2	12	6	0
LX 3	12	8	0
LX 4	16	6	0
LX 5 (cyc)	4	2	0
Floor Dips	24	0	24
Stage Booms	5 each	3 each	0
FoH Booms	5 each	3 each	4

Circuits 159 - 206 (LX3, 4, dips, spares) are fed from 63A 3-phase on LX floor. These cannot be used to full capacity simultaneously.

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)	Max Lumens	Colour size (mm)
ETC Color Source Spot V 25 – 50	6	2	25 – 50	200	7.7	9,498	
ETC Color Source Spot V 15 - 30	40	0	15 - 30	200	7.7	9,498	
ETC Color Source Fresnel V	30	0	13-44	150	6.24	5,330	190
ETC Color Source Par	32	0	14.5	135	8.3	3,039	180
ETC Color Source CYC	8	10	N/A	120	10.3	4,117	N/A
Source 4 PAR	0	30	See note	575	3		180
Harmony 22/40 *	0	6	22-40	1000	12		180
Source 4 zoom 25/50	0	2	25-50	575	9.5		180
Minim 23	0	4	20	500	4		120
Minim F	0	2	13-65	500	3		120

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

*** Note that all FoH and boom profiles form a fixed rig and cannot be moved. Auditorium side Spot Vs are also fixed focus.**

Smoke and Haze

2 x Unique Hazer

2 x Fog Fury LED effect smoke machines

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)

Playback / Outboard Signal Processing

2 x CD

1 x Mac computer running QLab 3

1 x 16x8 Focusrite

1 x SD/USB recorder (Denon)

All equipment in control room only.

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

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. DB limit of 97bd (C rated over 5 minutes)

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 Cat 5e 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
Conor Fleming	Technician

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Box Office 01372 742555

Admin 01372 742226

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

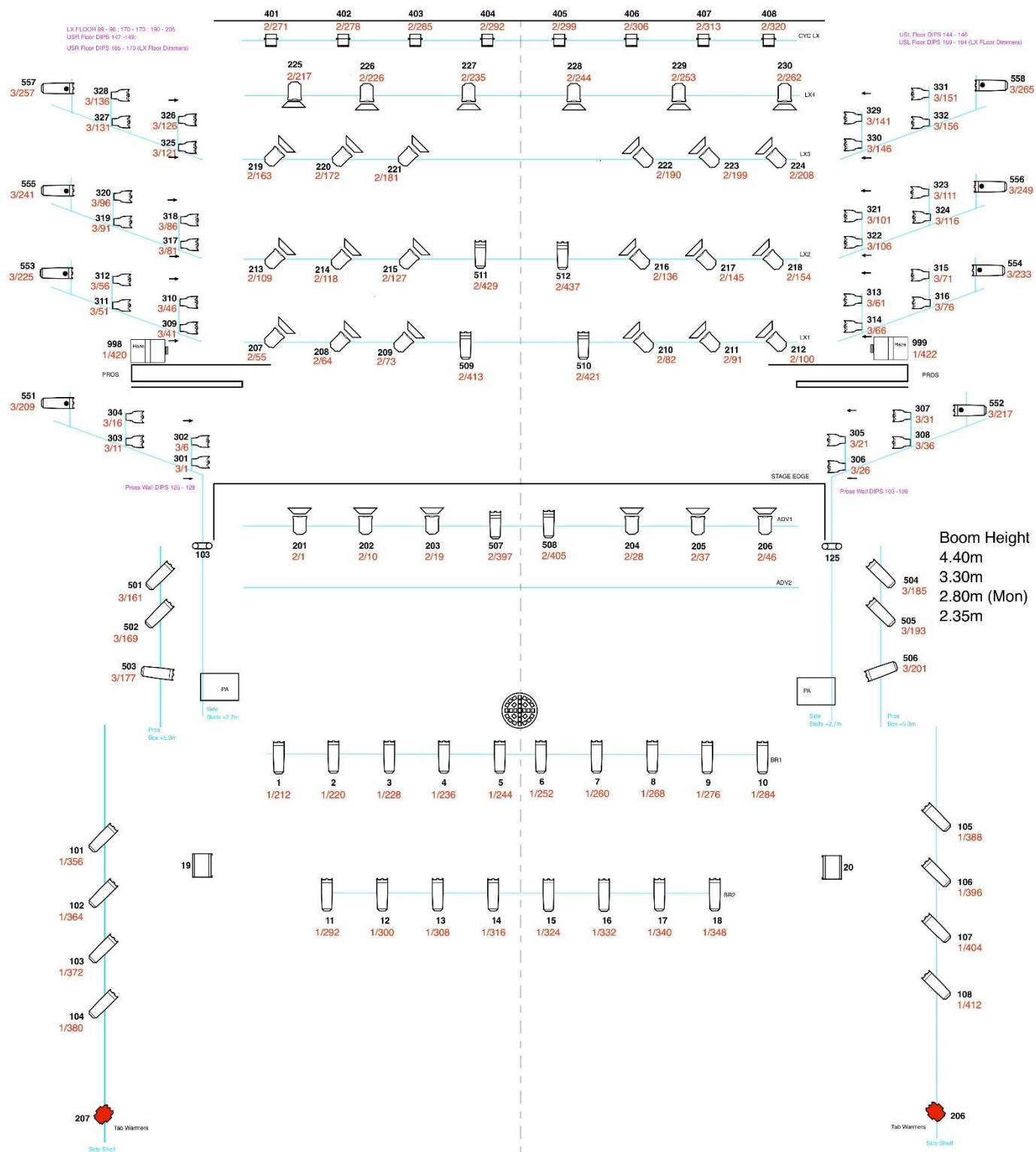
Haze machines

Data projector

Additional Staff

(one is included in
every hire)

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



MAGENTA NUMBERS INDICATE DIMMER CIRCUIT POSITIONS ON STAGE AND OVERHEAD RIG

GREEN NUMBERS INDICATE BAR SOCKET NUMERING

RED NUMBERS INDICATE INTELLIGENT ADDRESS NUMERING

HOUSE LIGHTS ARE INDEPENDENT MANUAL CONTROL OR DIMMERS 209 THU 211/209 Main Block 210 Gallery Up 211 Gallery Down

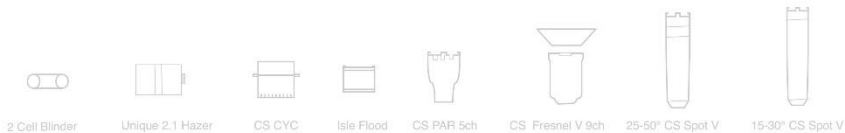
Please refer to Patch Sheet for Dimmer/Relay configuration

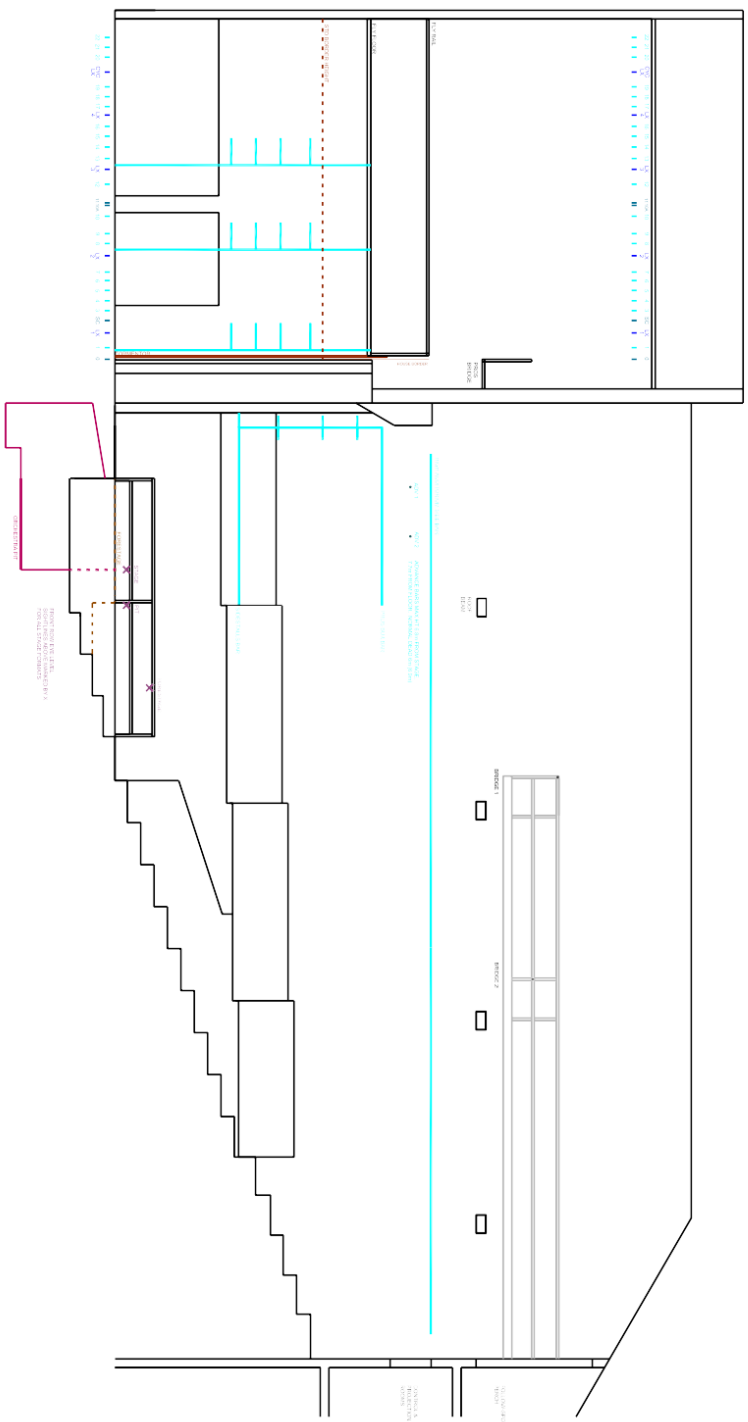
CH 101 THU 108 and 206 + 207 ARE FIXED FOCUS

EPSOM PLAYHOUSE STANDARD RIG PLAN

Please refer to patch sheet
for Dimmer/Relay configuration

Not to Scale





EPSOM PLAYHOUSE AUDITORIUM SECTION
DRAWING EP3
DRAWN JANUARY 2012
SIMON BANKS
SCALE DEPENDENT ON PLOT

EPSOM PLAYHOUSE AUDITORIUM PLAN