Venue
Fire Risk Assessment

Wembley Park Theatre

Event Name:
Event Date(s):
Venue Manager

Wembley Park Drive, London, HA9 8HP
## Revision history & disclaimer

### Current Document Status: DRAFT

### Version Control

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The following information is for guidance purposes only and is subject to client approval and sign off. Designs show intent only and are subject to change. Any information contained in this document is in draft form only.

Authors: Wembley Park Theatre Ltd.
Introduction

This document contains the suitable and sufficient fire risk assessment for Wembley Park Theatre. The purpose of this is to identify fair safety provisions that are needed to be taken to comply with the Fire Precautions (Workplace) Regulations 1997 as amended and the Management of Health & Safety at Work Regulations 1999.

The risk assessment has been completed following an organised look at what, in our work activities and workplace, could cause harm to people either working in or visiting the premises. In order to ensure a tolerable level of risk is maintained exiting fire control measures have been considered along with the identification of hazards and evaluation of risk.

As there are five or more employees the ‘significant findings’ of the assessment and groups of persons who may be affected have been recorded in writing within this document as required under current legislative requirements.

The significant findings include existing fire safety provisions, any necessary improvements to the fire safety provision and proof that the fire risk assessment is suitable and sufficient, eg. Workings, facts or sources of information etc.

Individual characteristics for each workplace location have been taken into account and are included in this risk assessment document.

Fire risk assessments are reviewed and updated if any significant changes occur to the premises or on an annual basis.

About the management

Wembley Park Theatre Ltd will manage the venue and be ultimately responsible for the delivery of a safe event environment. Senior managers from the Wembley Park Theatre have managed similar venues in the past including: Peter Pan in Kensington Gardens (London, Summer 2009); Peter Pan at The O2 (London, Winter 2009/2010); The Lion the Witch and the Wardrobe (London, Summer 2012); The Railway Children at the King’s Cross Theatre (London, 2014 – 2016); Lazarus at the King’s Cross Theatre (London, Winter 2016) and The Donmar at the King’s Cross Theatre (London, Winter 2016).

About the venue

The Wembley Park Theatre is a temporary ‘meanwhile use’ of the former Fountain Studios complex in Wembley in north west London. The multi-functional venue will be predominantly focused on a 1340sqm venue space which will be located in the main studio building. In addition, a number of supporting locations will be utilised to house bars, rehearsal space, circulation space, audience toilets, offices, dressing rooms, storage spaces and other BOH infrastructure. The venue has been designed to enable the public to be easily kept to their designated areas and the production/non-public areas are kept secure with assistance from the venue security team.

The property was originally constructed between 1958 and 1960, being purpose built as a recording studio and was considered to be the largest TV recording studio in the UK. It has
received a number refurbishments since its original construction but the most significant was circa 20/25 years ago.

The building comprises a concrete frame and steel frame construction. The high bay auditorium incorporates significant structural steelwork and steel lattice beams to form an uninterrupted span over the auditorium. The auditorium also incorporates a movable acoustic wall which is also formed from substantial steel construction. The central auditorium is enclosed by brick elevations and surmounted by a felt covered flat roof which drains to the east edge and discharges into an external rainwater goods. Incorporated within the main auditorium roof is a raised upper roof which houses the winch gear associated with the central acoustic wall.

To the West of the auditorium, is a four storey wing, formed over the main reception which is enclosed by brickwork and fronted by full height crittall windows. This wing generally houses the reception and plant for one half of the auditorium.

Along the North elevation and extending further North is a two storey addition incorporating a roof enclosure. The two storey addition is finished with factory finished cladding to elevations and felt roof covering. The roof enclosure, adjacent to the auditorium is finished with profile sheet cladding.

Extending further to the North is a 3 storey wing finished with the same factory finished cladding as described above, with felt roof coverings (overlaid with a fibre glass liquid applied application) enclosed by raised parapets with concrete copings. At ground floor level a lean-to patent glazing extension with factory finished frames is provided which serves the restaurant. To the rear (east) of the same wing, crittall windows and aged brickwork from the rear elevation. The additions along the North elevation house dressing rooms, production studios, restaurant and offices.

To the East of the auditorium and extending to the North is storage accommodation. Adjacent are plant rooms which to replicate those found above the main reception (West elevation). Storage accommodation is finished with profile metal sheet cladding to elevations whilst roofs are either profile sheet metal cladding or corrugated asbestos cement roofing. The plant room which replicates the West elevation extends to four floors and finished with felt coverings to the roof and brick elevations. The stores are generally exposed to weathering with one elevation being open allowing direct access to the auditorium through large roller acoustic doors. The storage accommodation is of steel framed construction.

Internally, the auditorium is fitted with acoustic equipment including a large dividing acoustic wall, suspended specialist lighting and a quality concrete floor suitable for rolling a range of equipment. The auditorium has no windows and is fully lined with acoustic paneling throughout. All surfaces within the studio are painted black. To the perimeter are metal gantry walkways, provided at each level connected through a series of ladders. Whilst gantries are metal framed, the floor comprises timber planks.

Ancillary accommodation includes similar finishes with plaster and painted walls, either plastered and painted ceilings or ceilings comprising mineral fiber suspended ceilings. There are various floor coverings but accommodation is predominantly a combination of carpet and vinyl floor coverings. Production rooms have acoustic paneling to facilitate their function whilst dressing rooms incorporate sinks and often have en-suite toilet/bathroom facilities. Accommodation has typical office finishes and lighting, whilst plant room areas are far more
basic with painted or bare finishes. Floors are interlinked by concrete stairs and finished to a similar specification as the office accommodation whilst toilet facilities are distributed throughout the building footprint. Toilets incorporate white sanitary ware and urinals with wipe clean surfaces.

To the ground floor of the North wing, a restaurant is provided incorporating a higher specification, bar and decorative surfaces. Immediately off the restaurant is a commercial kitchen used for the preparation of food which incorporates metal tile white suspended ceilings, floor tiling and other wipe clean surfaces suitable for kitchen facilities.

The storage accommodation has exposed steelwork and lining panels. Floors are generally concrete, although an internal temporary structure is installed with toilet facilities which is fitted out to a higher specification.

**Location**

The proposed location for the project is situated within a former TV studio, Fountain Studios, at 128 Wembley Park Drive, Wembley, London, HA9 8HP.

Google Maps Link: [https://goo.gl/maps/8G84L73hpUL2](https://goo.gl/maps/8G84L73hpUL2)

The venue will be predominantly focused on the 1340sqm former studio space which will be located in the center of the studio building. In addition, a number of supporting locations will
be utilised to house bars, rehearsal space, circulation space, audience toilets, offices, dressing rooms, storage spaces and other BOH infrastructure.

The venue is located in close proximity to Wembley Stadium and forms part of the redevelopment associated with the Stadium within Wembley Park. It is located on the corner of Fulton Road and Empire Way and backs onto the adjacent retail park. It is located close to Wembley Park tube station and benefits from a good local road network linking to the north circular around North London.

The majority of the audience members will access the venue from the main public entrance located on Fulton Road. This can be seen denoted as Main Access / Egress A on the site plan (see Appendix A). For those attending just the restaurant space or occasionally for operational reasons, it may be necessary for some of the guests to enter via additional entrances which will be located directly from the west of the venue on Wembley Park Drive. This can be seen denoted as Secondary Access/ Egress B on the site plan (see Appendix A).

Visitors, contractors and staff will also access the venue on Fulton Road, however they will be kept separate with the use of a separate entrance. This will be the primary entrance for contractor vehicles, stage performers and emergency vehicles. This can be seen denoted as Back stage & Emergency Access C on the site plan (see appendix A).

Site plan
Please see appendix A site plans (PDF) which shows the following:

- Location Block Plan of Site Showing Boundaries
- Site plan with fire exits and exit routes
- Pedestrian and vehicle access routes
- Fire Extinguisher Positions
- Maximum exit route distances
- Typical venue / seating layouts

Licensing
The venue will operate under a Premises License which is governed in UK law by the Licensing Act (2003).

This document is designed to support the application with the following highlights:

- Maximum occupancy will be 1,500 with an additional 250 staff to include cast, crew and support staff.
- Various spaces within the building will be used in a number of layouts and for a number of functions, including the former studio space, restaurant, storage areas and car parks.
- Operating hours of 08:00 – 02:30 (with an extension of going until 3am for certain productions)
- Tickets are available online, as well as at a temporary box office located on-site.

There will be a condition proposed that allows an extension of operating times for up to 15 individual days a year. This extension will be submitted in writing to the appropriate local authorities with a minimum of ten days notice.
For clarity, this license application for a new license (as well as the applicants and their management team) is in no way connected to any other events which have previously occurred at this venue.

**Legislation & Guidance**

All business premises, whether shops, factories or theatres should provide a safe and secure environment for those who are working, volunteering or visiting them. The fire safety requirements can be addressed through the standard guidance provided in the Approved Document B to the Building Regulations, 2010.

**Building Regulations 2010**

With few expectations, all buildings built in England and Wales must comply with the England and Wales Building Regulations 2010. Part B of Schedule 1 of the regulations sets out the ‘requirements’ for achieving a reasonable level of fire safety. These ‘requirements’ address the following:

- B1 – Means of warning and escape
- B2 – Internal fire spread (linings)
- B3 – Internal fire spread (structure)
- B4 – External fire spread
- B5 – Access and facilities for the fire service

The principal aim of the Building Regulations is to ensure the health and safety of people in and around a building.

The ‘requirements’ set out the broad objectives or functions which the individual aspects of the building design and construction must set out to achieve. They are therefore often referred to as ‘functional requirements’ and are expressed in terms of what is ‘reasonable’, ‘adequate’ or ‘appropriate’.

Compliance with these requirements can be achieved by following the guidance contained in Approved Document B – Fire Safety, which has been used in this document when considering the fire safety provisions for this building.

**Regulatory Reform (Fire Safety) Order 2005**

The Regulatory Reform (Fire Safety) Order 2005 came into force in October 2006, and with its introduction the Workplace Regulations and the Fire Precautions Act ceased to have effect.

The Order deals with buildings in use, and requires fire precautions to be put in place where necessary and to the extent that it is reasonable and practicable in the circumstances of the case.

Responsibility for complying with the Fire Safety Order rests with the “responsible person” in a workplace. This is the employer and any other person who may have control of any part of the premises, e.g. the occupier or owner and event organisers. If there is more than one responsible person in any type of premises, all must take all reasonable steps to work with
each other.

The provisions of the RRO require that the risks to the occupants of the building are kept as low as is reasonably practicable (ALARP). The principle of ALARP can facilitate robust design solutions relative to the risks in buildings of a temporary nature. Reasonably practicable involves weighing a risk against the trouble, time and money needed to control it. Thus, ALARP describes the level to which the fire service expect to see risks controlled.

ALARP allows goal setting for duty-holders, rather than being prescriptive. Measures are required to be adopted to reduce the risk as far as practicable unless the duty-holder can show that it would be grossly disproportionate to the benefits of risk reduction that would be achieved.

Following this principle will often lead to a level of fire safety provision that will be superior to that required to comply with the minimum requirements of the Building Regulations and therefore those required for conventional life safety requirements.

The responsible person will have to carry out a fire risk assessment which must focus on the safety in case of fire of all persons who may be affected by a fire in the building e.g. occupiers / members of the public. It should pay particular attention to those at special risk, such as the disabled and those with special needs, and must also give consideration to any dangerous substance likely to be on the premises. The fire risk assessment will help identify risks that can be removed or reduced and to decide the nature and extent of the general fire precautions needed to protect people against the fire risks that remain.

The Regulatory Reform (Fire Safety) Order 2005 applies to all buildings. The fire risk assessment will be carried out on completion of the works in readiness for members of the public entering the building. This document will attempt to satisfy the needs of this statement, with input and assistance (where required) from the local fire authority, local authority or other interested stakeholders. Provisions in this document will assist with this process.

**Means of Warning**

- Alarm system – offices – sensors and break class – sounders & beacons
- Alarm system – studio – filters and beak glass– sounders (not during live show) & beacons
- Alarm system – kitchen – pull stations - sounders & beacons
- Warning announcement will be made from the stage or front of house position via the PA system
- In the event of power failure, battery back up systems are attached to alarms and megaphones are provided at the front of house positions

The building, which is an existing structure was previously put to similar use as a TV / live events venue and recording studio.

The requirements for warning in the event of a fire is a function of the other fire safety provisions included in the building design. For a building of this type, the minimum expected standard of fire detection and alarm system would be a manual system, as defined by
BS5839-1 (2013). This would involve the minimum installation of manual call points within the building, at locations as defined in the Standard, linked to sounders / flashing beacons to indicate an alarm.

Consideration is given to the theatrical nature of the venue, due to the potential presence of theatrical effects such as hazing or pyrotechnics for example within the auditorium area, the use of point or beam detection systems in the building are problematic. In addition, further consideration is given to the needs of the cooking and hospitality functions of the venue.

There are currently mutli-type alarm system (connecting two separate alarm systems) and an independent system in operation within the venue.

- A KENTEC system in the BOH areas including the external storage areas. There is a repeater panel on corridor B (bottom of office stairs -next to prod B). The detection method is a mixture of heat and smoke sensors and is also connected to a series of break glass call points. A 6-hour battery back-up is connected to this system in the event of a power failure.

- A VESDA system (sniffer system) in the auditorium. The area has been split into two halves, system A (stage end) and system B (audience end). The panels that house the air sampling filters are located on the upper gantry and walkways.

- An ANSUL system (2 tank system) in the kitchen – This system is independent to the main venue alarm system covering all other areas. The kitchen shutter system is linked into the Ansul alarm system and will automatically falls upon the activation of the alarm. The system is activated by pull stations positioned around the kitchen areas.

**Means of Escape**

The evacuation strategy for the building is to be one of simultaneous evacuation. In the event of the fire alarm being sounded, all people are to leave the building at the same time.

The general principals for fire safety in buildings, is that occupants should be able to turn their back on a fire and make their escape in the opposite direction. This is achieved by having a selection of escape routes to choose from, regardless of the location within the building. Single escape routes are acceptable where the route is limited in length and does not lead the occupants through a more hazardous area.

The standard approach to escape is to limit the distance occupants need to travel to reach a place of relative safety within the building, or to reach a place of ultimate safety, outside and away from the building. Documents such as Approved Document B (guidance document to the Building Regulations) and the RRO guides typically limit the distance to the closest exit in a single direction of escape to 18m, and 45m where more than one route is available.

Guidance is offered within “Fire Safety Risk Assessment: Theatres, Cinemas and Venues” which has been developed by MH Government. This gives the following escape distances as guidance:
The venue can be split into two types of uses:
- Public accessible – FOH, the auditorium and restaurant areas.
- Non – Public accessible – BOH, offices, dressing room, storage and infrastructure areas.

Wembley Park Theatre will be using the same venue layout as the previous building use as Fountain Studios. Wembley Park Theatre Ltd will also not be changing the uses of the non-public accessible BOH areas.

The only exception to this is the use of the former Scene Dock where sets and scenery was stored inbetween shows. This area will now be transformed into the Wembley Park Theatre’s new Front of House area, containing the box office, bar and the new main audience entrance.

There isn’t currently enough safe exiting capacity for all attendees from this area. Therefore, additional fire exits and escape routes will be installed and designed into the FOH area to reach the desired venue capacity.

The Venue Management Team have used these guidance figures and calculations to develop the following venue / area capacities:

Total FOH Bar Area – 500 m²
Floor Space Factor (Assembly Area - per person) – 0.5 m

\[
\text{Area Occupancy} = \frac{\text{Total Area}}{\text{Floor Space Factor}} = \frac{500}{0.5} = 1000 \text{ people}
\]

Exit Flow Rate (current standard given rate) – 109 people per meter per minute
Escape Time – (current standard recommended time) – 5 minutes

\[
\text{Area Exit Capacity} = \frac{\text{Area Occupancy}}{\text{Exit Flow Rate} \times \text{Escape Time}} = \frac{1000}{(109 \times 5)} = 1.83 \text{ m}
\]
As calculated above there needs to be a total minimum exit width of 1.83 m in the FOH Bar area to accommodate the FOH Bar area proposed occupancy of 1000 people.

There are five separate exits servicing the FOH area:

\[
\begin{align*}
\text{EXIT 1} &= (\text{Exit Flow Rate} \times \text{Escape Time}) \times \text{Exit Width} = (109 \times 5) \times 2.8 \\
&= 1526 \text{ people} \\
\text{EXIT 2} &= (\text{Exit Flow Rate} \times \text{Escape Time}) \times \text{Exit Width} = (109 \times 5) \times 2.8 \\
&= 1526 \text{ people} \\
\text{EXIT 3} &= (\text{Exit Flow Rate} \times \text{Escape Time}) \times \text{Exit Width} = (109 \times 5) \times 2.8 \\
&= 1526 \text{ people} \\
\text{DISCOUNTED – due to the 45 degree rule} \\
\text{EXIT 4} &= (\text{Exit Flow Rate} \times \text{Escape Time}) \times \text{Exit Width} = (109 \times 5) \times 4.6 \\
&= 2507 \text{ people} \\
\text{DISCOUNTED – due to the largest exit rule} \\
\text{EXIT 5} &= (\text{Exit Flow Rate} \times \text{Escape Time}) \times \text{Exit Width} = (109 \times 5) \times 0.9 \\
&= 490.5 \text{ people} \\
\text{DISCOUNTED – due to the travel distance rule} \\
\end{align*}
\]

Therefore:

\[
\begin{align*}
\text{Total Area Capacity} &= \text{EXIT 1} + \text{EXIT 2} = 2.8 + 2.8 = 5.6 \text{ m} \\
\text{Total Safe Area Exit Capacity} &= \text{EXIT 1} + \text{EXIT 2} = 1526 + 1526 = 3052 \text{ people}
\end{align*}
\]

A copy of the Fire exits and escape route plans can be found in Appendix A.

The above calculations give the overall venue occupancy as 3,000 people (including staff, visitors and contractors). This amount however does not consider staging, seating or other structures that would be installed into the occupied areas. Therefore, a working capacity of 1,500 people will be in place for a traditional theatre production. To achieve this working capacity of 1,000 in the FOH bar area the Venue Management Team will ensure that the Auditorium is not occupied with a different production at the same time as the FOH area. It is also assumed that approximately 500 people will take their seats straight away within the auditorium once entering the venue.

The staffing numbers for the venue will vary depending if it is a show or non-show day. A show day could be as much as 250 people (including cast and crew), depending on the production requirements. Whereas a non-show day could be as little as 20 people.

All external exiting fire exit doors have panic bush bar mechanisms of ease of opening. Internal fire doors and all self closes or are connected to magnetic hinges that release upon the firm alarm systems being triggered.
All of the rooms on the upper floors to the venue are non-public access. They also have at least two routes of escape and sufficient staircases.

The upper floors also have escape routes that run across the roof areas if required. The venue has only one Inner room, situated in production B office, on the first floor. This room only has a single exit but this has half glass walls so occupants can see out.

Detailed route plans are displayed in all occupied areas of the venue, both public and non-public. These plans show the most efficient escape routes from that particular location.

A copy of the Fire exits and escape route plans can be found in Appendix A.

**Persons with Reduced Mobility (PRMs)**

As the venue is open to all members of the public, there is the possibility that persons who need assistance to evacuate may be present on site. A sufficient number of staff are required to ensure that an evacuation can be managed effectively and that no persons a left in a place of danger.

All escape routes from publically accessed areas of the venue are provided on flat level ground and with level thresholds to cross. Those with disabilities are encouraged to let the box office team know at the time of booking for a production, or directly by email once their booking has been made.

For disabled persons who frequently use a building (such as staff) an individual ‘personal emergency evacuation plans’ (PEEPs) will be developed.

**Emergency Lighting**

Emergency lighting should be provided within all areas of the building in accordance with BS5266. The venue emergency lighting has been installed to the relevant British Standard and a sign off is provided by the installation team to ensure that it has been appropriately installed.

General site lighting is provided from mains powered lighting, which is positioned across the venue. In the event of power loss to the venue or auditorium, battery backup flood lighting and running man signage is installed within the venue covering all areas, to ensure that exit routes can be followed in the hours of darkness.

Additional consideration has been considered, that additional levels of emergency lighting has been needed for areas that have been decorated with dark surfaces.

Regular and systematic monitoring and review of the emergency exit signage is undertaken by the Event Safety Advisor.

**Emergency Exit Signage**

All escape routes throughout the venue will be conspicuously marked with exit signage to conform to BS5499. These signs will either be illuminated, or will be illuminated by an adjacent emergency lighting fitting. The venue emergency lighting has been installed to the relevant British Standard and a sign off is provided by the installation team to ensure that it has been appropriately installed.
Portable Fire Fighting Measures
Fire-fighting equipment can reduce the risk of a small fire, e.g. a fire in a waste bin developing into a larger one. The safe use of an appropriate fire extinguisher to control a fire in its early stages can also significantly reduce the risk to other people in the event or venue by allowing people to assist others who are at risk.

The building is to be equipped with appropriate fire extinguishers, selected for the appropriate risk, and positioned within the building to BS5306-8 (2012). There is also be sufficiently sized extinguishers available in locations of catering area, of a type appropriate for the local risks.

Each of the venue’s generic areas (production offices, dressing rooms etc) are equipped with fire fighting equipment. This is made up of water fire extinguishers for general combustibles. Within the venue, CO₂ and fire blankets will be located at more technical areas such as the front-of-house position and the stage areas. At the locations of high concentrations of fuel (i.e. at maintenance compound) AFFF fire extinguishers will be deployed. At the locations of high concentrations of power distribution equipment, CO₂ fire extinguishers will be deployed.

The provision of fire-fighting equipment for a specific or unusual situations will vary according to what is brought in to the venue by visiting production companies. Different fire extinguishers are required for different areas of the venue as each of these present a different type of risk. In the event that a specific risk is identified (i.e. a production with pyrotechnics which forms part of their performance), additional risk assessment, co-ordination meetings and fire fighting equipment may be required.

The Venue Management Team and technical staff will be made aware of the fire fighting equipment in their area, with the instruction that these are to aid escape only and that no regard should be given to anything other than getting themselves and the venue guests out of the venue and to a place of safety.

A copy of the Fire Extinguisher Positions plan can be found in Appendix A.
Maintenance
The Site Manager undertakes regular checks of the venue to ensure

- Fire extinguishers are in the correct places
- Fire routes have not become blocked
- Rubbish and other materials have not been allowed to accumulate
- Running man and emergency backup lighting are in place and operational

Fire fighting vehicles
In the event that the fire and rescue service are called to the venue, it is important that they are able to access the venue with ease, where they will be met by either the Site Manager (TBC XXXXX XXX XXX) or the Security Manager (TBC XXXXX XXX XXX), who will then accompany them to the relevant location within the venue.

There shall be no change to the current arrangement for fire fighting access and facilities for the building. The approach to the building shall remain as existing. It should be ensured that the fire service have access to all elevations which are currently present.

Parked vehicles and other equipment will be kept clear of all road routes and security / safety team members will ensure constant monitoring of this. If required, stewarding and security team members will move audience members away from any roadways which are likely to be required by the emergency services.

Fire Hydrants
The existing provision of hydrants in the adjacent streets is assumed to be sufficient. This should be checked with the local fire service water officer.
Sources of ignition

Hot works
Very little, if any hot works take place within the venue. In the event that hot works are required, a permit prior to work system is in place along with a fire watch protocol.

Electrical Safety
- All electrical systems are designed by competent and experienced electrical staff who have provided power systems for similar venues.
- The electrical installation will be designed, installed and signed off by a qualified electrician who has been trained in the delivery of power systems to BS 7671 / BS 7909.
- An electrical completion certificate will be provided to the safety advisor prior to the opening of productions.
- All equipment on site will be PAT tested prior to use – the onsite electricians will be able to PAT test equipment onsite should it be required.
- Areas of high concentrated electrical distribution will be fenced to prevent unauthorised access.
- Contractors who undertake electrical works will be required to provide risk assessment / method statement documentation
- Contractors who use electrical equipment will be required to provide risk assessment / method statement documentation

Smoking
In accordance with National Legislation, smoking is not permitted in any enclosed or partially enclosed structure (including, but not limited to; food preparation areas, any vehicles, electrical distribution and fuel storage areas). There will be suitable erection of “No Smoking” signs.

Smoking will only be permitted in designated areas, outside the venues.

Chemicals
The Control of Substances Hazardous to Health Regulations (2002) manage the use of hazardous substances in the workplace.

- Contractors who use chemicals onsite will be required to provide risk assessment / method statement documentation
- At this time the only chemicals which are expected on site are:
  - Those for cleaning
  - Those for use in toilets (i.e. BlueChem)
  - Paints for scenery maintenance
  - Fuels such as diesel

Construction works
There are currently no planned activities or operations during the construction and dismantle phases of the project which would lead to a greater fire risk. Any changes to this will be communicated to the venue safety advisor and additional communication and assessment undertaken as required.
Sources of fuel

Materials used on site
The Regulatory Reform (Fire Safety) Order (2005) governs that any material which is applied to the surface of an internal wall or ceiling in any public area must:

- adequately resist the spread of flame over the surface; and
- have, if ignited, either a rate of heat release or a rate of fire growth, which is reasonable in the circumstances.

The Venue Management Team will work with their staff and contractors to ensure that any materials used on site meet these requirements, by using either IFR materials, or materials which have been treated with appropriate flame retardant spray.

The Fire Safety Risk Assessment: Theatres, Cinemas and Venues contains guidance on how the risks within this type of premises where displays, scenery and dressings / curtains are used, can be effectively reduced.

In accordance with this guidance and Annex D of BS 9999, the materials and fabrics used to dress the building will be selected with fire safety as a preliminary concern. BS 9999 requires that furnishings, fabrics, and decorative features:

‘... (which include drapes and artificial foliage) need to be of materials which in themselves do not present an unacceptable increase in the combustible materials within the building, and those which would not cause rapid spread of fire or smoke generation if involved in a fire.’

Some of the most common ‘fuels’ found in theatres, cinemas, concert halls and similar premises are:

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<thead>
<tr>
<th>Flammable-liquid-based products, such as paints, varnishes, thinners and adhesives;</th>
<th>All liquid based products are stored carefully, in small quantities away from heat sources; Only the minimum required liquids are stored on site.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammable liquids and solvents, such as alcohol (spirits), white spirit, methylated spirit, cooking oils and disposable cigarette lighters;</td>
<td>All liquid based products are stored carefully, in small quantities away from heat sources; Only the minimum required liquids are stored on site; Alcohol is stored securely on site, away from sources of heat; Cooking oil is stored securely on site, away from sources of heat; Diesel fuel is stored onsite in fuel tanks of up to 2,000 litres. All diesel tanks are bunded to reduce the likelihood of leaks. No refueling should take place on site.</td>
</tr>
<tr>
<td>Flammable chemicals, such as certain cleaning products, photocopier chemicals and dry</td>
<td>Cleaning products are used on site and stored securely, away from</td>
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<td>Sources of Heat</td>
</tr>
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<td>--------------------------------------------------------------------------------</td>
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<tr>
<td>Cleaning products that use hydrocarbon solvents;</td>
<td>• copier toner is used on site and stored securely, away from sources of heat</td>
</tr>
<tr>
<td>Flammable gases such as liquefied petroleum gas (LPG) and acetylene;</td>
<td>• LPG is used onsite</td>
</tr>
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<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Displays and stands;</td>
<td>• All set pieces, dressing and drapes are constructed of inherently flame retardant materials or have been flame treated</td>
</tr>
<tr>
<td>Costumes, untreated drapes and hangings, scenery and banners;</td>
<td>• All set pieces, dressing and drapes are constructed of inherently flame retardant materials or have been flame treated</td>
</tr>
<tr>
<td>Packaged foodstuffs;</td>
<td>• Insufficient volume to be of concern</td>
</tr>
<tr>
<td>Packaging materials, stationery, advertising material and decorations;</td>
<td>• All set pieces, dressing and drapes are constructed of inherently flame retardant materials or have been flame treated</td>
</tr>
<tr>
<td>Plastics and rubber, such as video tapes, polyurethane foam-filled furniture and polystyrene-based display materials;</td>
<td>• All set pieces, dressing and drapes are constructed of inherently flame retardant materials or have been flame treated</td>
</tr>
<tr>
<td>Upholstered seating and cushions, textiles and soft furnishings;</td>
<td>• All set pieces, dressing and drapes are constructed of inherently flame retardant materials or have been flame treated</td>
</tr>
<tr>
<td>Litter and waste products, particularly finely divided items such as shredded paper and wood shavings, off cuts, and dust accumulation amongst lubricated equipment;</td>
<td>• There is little instance of finely divided items</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Fireworks and pyrotechnics</td>
<td>• Pyrotechnics, fireworks and other special effects are used, protected and stored in accordance with the Explosives Regulations and Technical Standards and the manufacturer’s instructions.</td>
</tr>
</tbody>
</table>
Temporary Structures
Any temporary structures that are hired in for a temporary production will be constructed from flame retardant materials to British Standard BS 7837. Certification will be collated by the Venue Management Team and held on file on site.

House keeping
To reduce accumulation in back of house and public areas, cleaning staff will be onsite and working during the main operational hours of the venue. Bins will be emptied, litter collected and inspection made of all back of house areas. Waste will be removed from these areas on a continual basis and taken to the waste recycling area. This area is away from public areas and will allow for the safe sorting and storage of waste.

Sources of Oxygen
The main source of oxygen for a fire is in the air around us. The Wembley Park Theatre is an enclosed building with a combination of systems, which will be capable of introducing / extracting air to and from the building.

- Natural airflow through doors, windows and other openings.
- Mechanical air conditioning systems and air handling systems.

Oxygen is always present in the air, but a certain degree of control can be exercised by:

- Closing all doors, windows and other openings not required for ventilation, particularly out of working hours.
- Shutting down ventilation systems out of hours and when not required for the function of the premises.
- Not storing oxidising materials near or within any heat source or flammable materials.
- Controlling the use and storage of pyrotechnics and fireworks.
- Controlling the use and storage of oxygen cylinders, ensuring that they are not leaking, are not used to ‘sweeten’ the atmosphere, and that where they are located is adequately ventilated.
Fire Spread

Internal

The interior wall and ceiling surfaces are required to have low heat release rates and surface spread of flame characteristics therefore they should satisfy the following classifications when tested under either the National Classifications, in accordance with BS 476 or under the European classifications in accordance with BS EN 13501: Part 1.

<table>
<thead>
<tr>
<th>Location</th>
<th>National Classification</th>
<th>European Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small rooms of area not more than 30m² in non-residential accommodation</td>
<td>3</td>
<td>D-s3, d2</td>
</tr>
<tr>
<td>Other rooms</td>
<td>1</td>
<td>C-s3, d2</td>
</tr>
<tr>
<td>Circulation Space</td>
<td>0</td>
<td>B-s3, d2</td>
</tr>
</tbody>
</table>

Within the existing building the majority of the walls are of industrial type construction with various areas of masonry infill and cladding systems between stanchions, plasterboard linings, concrete block, masonry and steel works. The surface spread of flame requirement, as per the table above, does not apply to the temporary dressings of the walls, but to the permanently installed wall linings.

There are no controls on dressings onto internal surfaces under the Building Regulations, however in terms of the RRO, coverings placed on the finished walls can provide a medium for fire spread and alter the risk to occupants in the building. Therefore, in order to meet with the spirit of Fire Safety Order and install the provisions of ALARP, the selected materials will be assessed by the venue management team for fire retardence in order to ensure that they do not become disproportionately involved in a fire or increase the potential for spread across the surface of the material. The fire risk assessment guidance document for theatres, cinemas and similar premises contains guidance on how the risks within this type of premises where displays, scenery and dressings / curtains are used, can be effectively reduced.

In accordance with this guidance and Annex D of BS9999, the materials and fabrics used to dress the building will be selected with fire safety as a preliminary concern. BS9999 requires that furnishings, fabrics, and decorative features:

'... (which include drapes and artificial foliage) need to be of materials which in themselves do not present an unacceptable increase in the combustible materials within the building, and those which would not cause rapid spread of fire or smoke generation if involved in a fire. They should conform to the following specific recommendations.

a) Furnishings, fabrics and decorative features should be non-combustible or should conform to the requirements for classification as type B in accordance with BS 5867-2:2008 after being
subjected to the appropriate wetting or cleansing procedure described in BS 5651.

b) Furnishings, fabrics and decorative features should not be provided within enclosed escape routes (other than foyers) unless made from non-combustible materials.

c) Drapes should not be provided in front of exit doors or across escape routes.

d) Textile floor coverings, together with any underlay, should, when tested in accordance with BS 4790, using the test procedure reflecting the method used for securing the floor covering to the floor, either:

1) not ignite; or

2) have effects of ignition on both the use-surfaces and under-surfaces not extending beyond a circle of radius 35 mm centred on the central point of application of the nut.’

Elements of structure are generally required to have a minimum standard of fire resistance to prevent premature failure of the structure. The fire resistance requirements are based on the maximum compartment dimensions, height of the building and occupancy.

Elements of structure are typically beams, columns, loadbearing walls, and floors. As a minimum therefore, the existing structure would have required to have a fire resistance of at least 60 minutes. This is the same period of fire resistance required for assembly use. Whilst the actual performance of the existing structure is unknown, it is considered appropriate to accept the existing structure, given the same requirement for fire resistance would have been in force at the time of construction.

**External**

As an existing building, the structure’s placement relevant to the adjacent boundaries are assumed to be satisfactory. The fire loading of the building as an assembly use is much lower than the potential loadings in an industrial / storage usage, therefore is not considered to increase the risk to neighbouring properties.

The property is within it’s own grounds with all areas of the site being evacuated simultaneously. Notional boundaries are therefore not considered to be present.

The existing building is understood to be constructed from materials typical to this use of building, i.e. masonry and composite steel / insulated cladding. As such the surface spread of flame of the external face of the building is considered appropriate for assembly use.

**Informing and Communicating**

As part of the fire risk assessment process it is critical that the findings of the assessment, roles and responsibilities are communicated to all relevant parties within the organisation.

It is a requirement that information should be communicated to staff members, contractors, visitors and those who share the premises.

It is best practice to share this information with other stakeholders, including the landlord (Qunitain Ltd), the local authority (the London Borough of Brent) and others.
Much of the information contained in this fire risk assessment has been brought together by working with the operations and staff teams at Wembley Park Theatre Ltd.

In response, once drafted, this information is likewise shared with others who may be affected by fire risk within the organisation, premises or otherwise.

**Conclusions**

The requirements of the fire safety provisions for Wembley Park Theatre, with respect to the available guidance and legislation has been assessed. It is considered that provided that the recommendations within this report are incorporated into the delivery of the venue, by the Venue Management Team, that an adequate level of fire safety should be provided at the venue and the requirements of the guidance and legislation will be met.