



Royal Whanganui Opera House

Information to support options outlined
in Consultation Document

Current Condition of the Stagehouse – Health and Safety

• **Timber Structure (Roof and walls)**

- 34% of NBS “earthquake risk category” at IL3
- Structural loading capacity is limited and unknown.
- Structure to suit hemp handline rigging system – Cannot support counterweight flying system.
- Stage floor loadings unknown.

• **Fire**

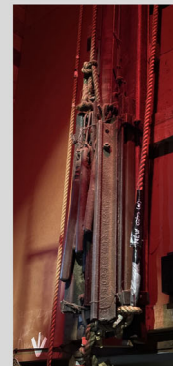
- Egress compromises auditorium / stage house
- Timber linings
- Unprotected wiring
- Stage drapes require re-fire treating
- Smoke stop curtain not present.

• **Temporary Scaffold Structure**

- Impacts on access and ability to work safely.
- Impacts on available stage space
- Access to hanging lights/drapes/AV requires EWP and working at heights – Also impacts on time, resource and operational cost for venue.

• **Remaining Rigging – (Replacement / upgrade)**

- House curtain, pelmet together with rigging requires replacement.
- Sound system suspension and rigging requires upgrading.
- FOH moving light bar suspension and rigging requires upgrading.
- Safe access required to/from FOH lighting position.



From left to right: Stage house roof structure / Unprotected wiring / Stage house wall timber structure (no lining or insulation) / House curtain rigging / Stage drapes / Fly floor railing & rigging scaffolding

Current Condition of the Stagehouse – Design

• **Configuration**

- Wing space – minimal (masking and access) – limiting
- Fly floor clearance – limiting
- Drift (height flown elements can be lifted is below standard)
- No Back of House to Front of house connection
- Planning conflicts

• **Theatre Systems**

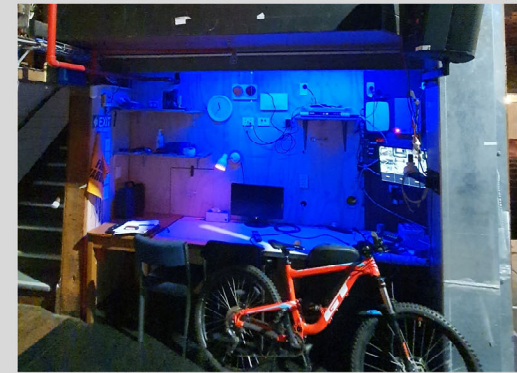
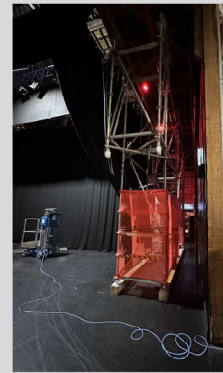
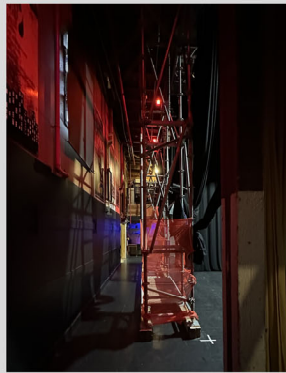
- Existing theatre systems infrastructure limited nor provides demanded level of amenity.
- Existing theatre systems equipment at end of life.
- Stage Managers control panel limited

• **Acoustics**

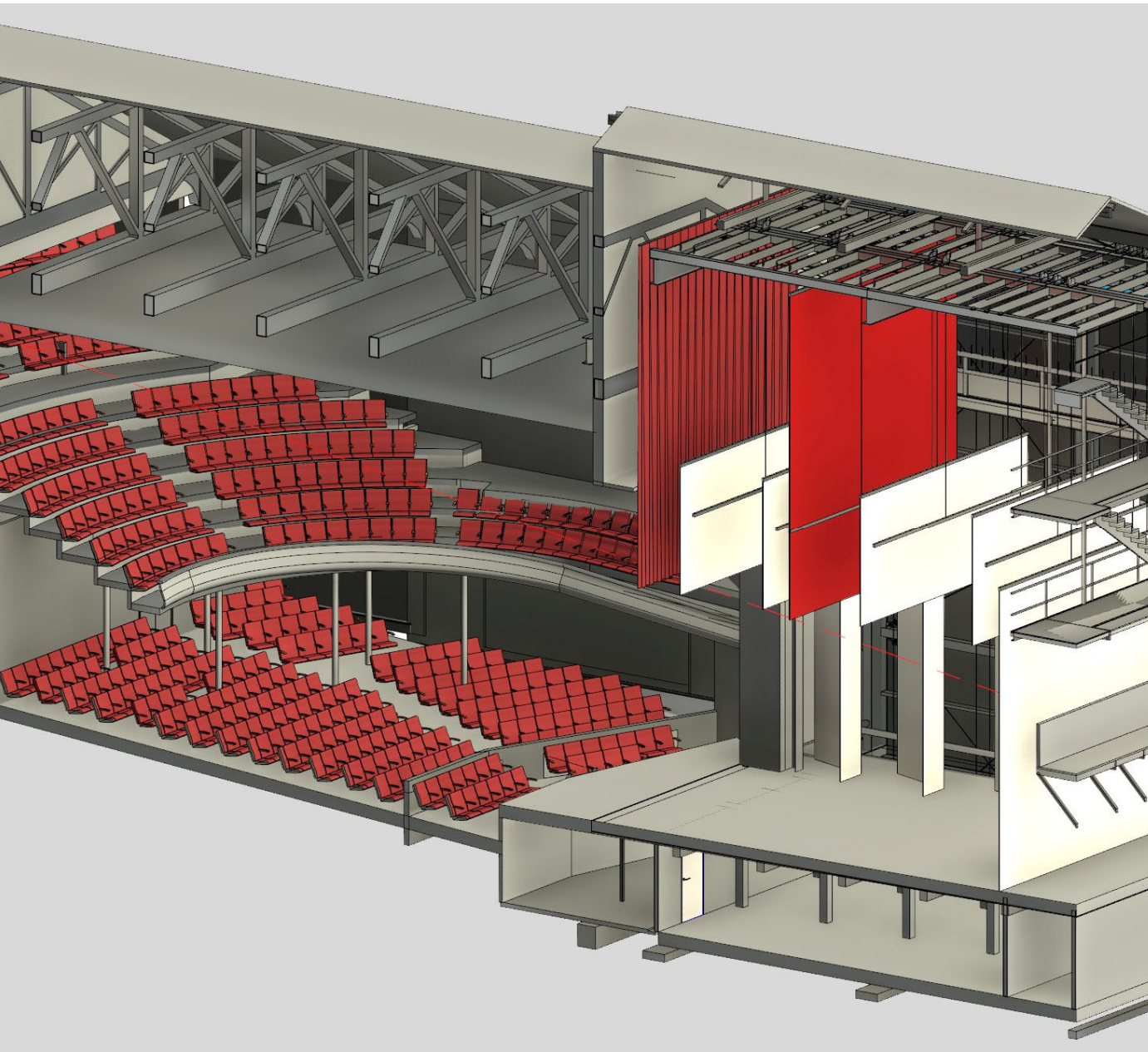
- No linings allow direct external sound
- Dressing Rooms open on to stage
- Stage access doors have no seals
- No basement / Stage acoustic separation

• **Building Services**

- Inadequate heating (gas)
- No cooling / ventilation system
- Poor working light levels and limited centralized control.



From left to right: Dressing rooms open direct on to stage / Stage wing space (both prompt & opposite prompt) / Comms / Stage Managers position



What is a flying system & stage house?

- RWOH is a lyric theatre – performance is viewed through a proscenium arch.
- Behind the arch is the stagehouse with its fly tower - the engine room of the productions.
- The arch conceals the rigging system within the fly tower.
- The rigging supports the curtains, stage drapes that mask the lighting, scenic elements that when 'flown' create the 'stage magic'.
- Flying requires a fly tower above the stage.

Upgrade Options – General

All Options address:

- Purchase of temporary scaffold structure to mitigate ongoing operational cost.
- Health & Safety Issues
- Replacement and upgrade of rigging and support of the moving light bar FOH. (except Option 1 – status quo)
- Replacement and upgrade of the rigging and support of the suspended speakers adjacent to the proscenium arch. (except Option 1 – status quo)
- Safe access to the four FOH lighting positions.
- Ability to isolate the smoke detection system to enable the use of pyrotechnics, haze, and smoke as part of a performance.
- Upgrades working lights to stagehouse.
- Addresses asbestos cement sheet to rear of proscenium arch.
- Reapplication of fire protection treatment to stage drapes to ensure flame retardancy compliance where curtain is not replaced.
- Replaces smoke stop curtain.



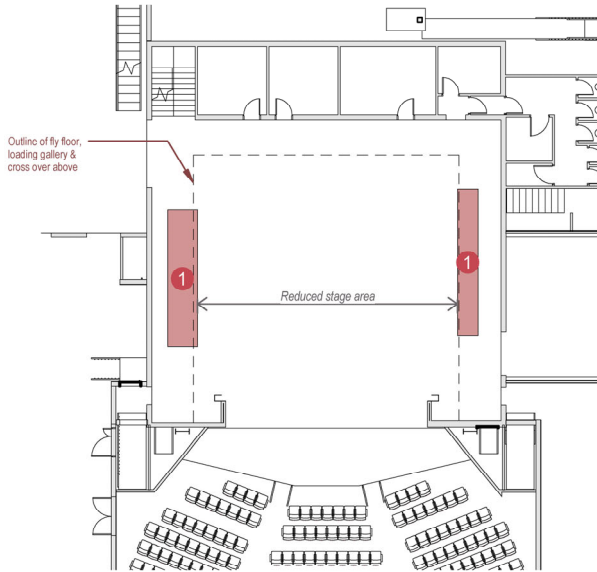
Upgrade Option One

This options retains the current situation:

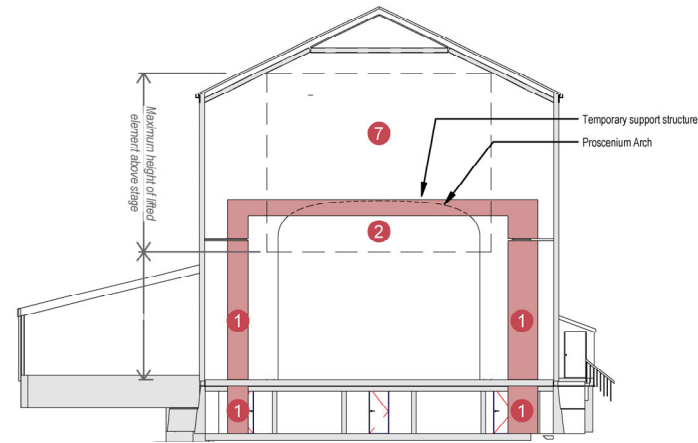
- This option retains the existing scaffold structure
- Completes work on health and safety issues identified.
- The venue will not provide the level of facility required by promoters, national companies and some local productions.
- Lack of flying system will limit types of shows that can come to Whanganui
- Not a viable option for a heritage lyric theatre looking to attract productions into Whanganui.



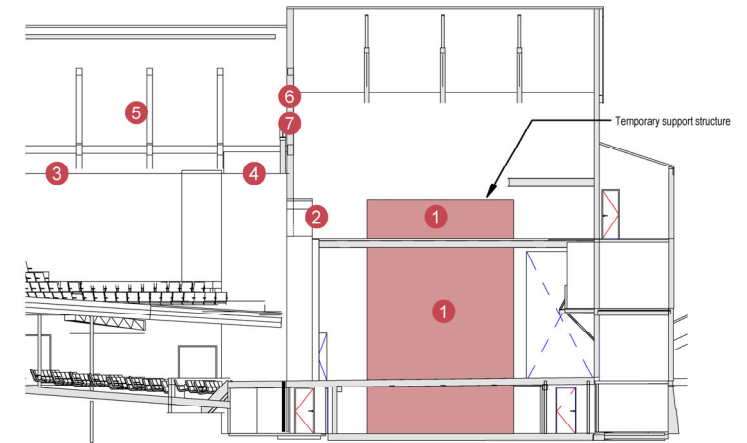
Option 1 – Retaining the Status Quo



Stage Floor Plan



Cross Section



Long Section

1. Illustrates extent of scaffold/ truss structure.
2. Replacement of the house curtain, house curtain pelmet rigging and installation of smoke stop curtain.
3. Replacement and upgrade of rigging and support of the moving light bar FOH.
4. Replacement and upgrade of the rigging and support of the suspended speakers adjacent to the proscenium arch.
5. Providing safe access to the four FOH lighting positions.
6. Removal or encapsulation of what appears to be asbestos cement sheet on the proscenium arch wall between the stagehouse and auditorium ceiling space.
7. Addressing the compliance of the access door between the stagehouse and auditorium ceiling space to achieve smoke control.

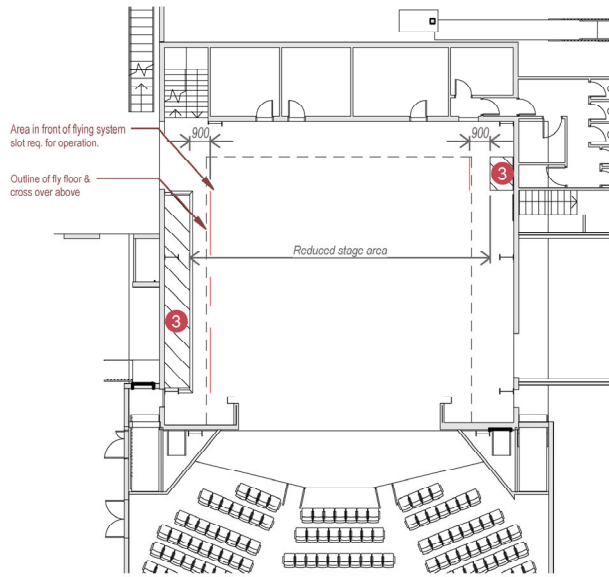


Upgrade Option Two

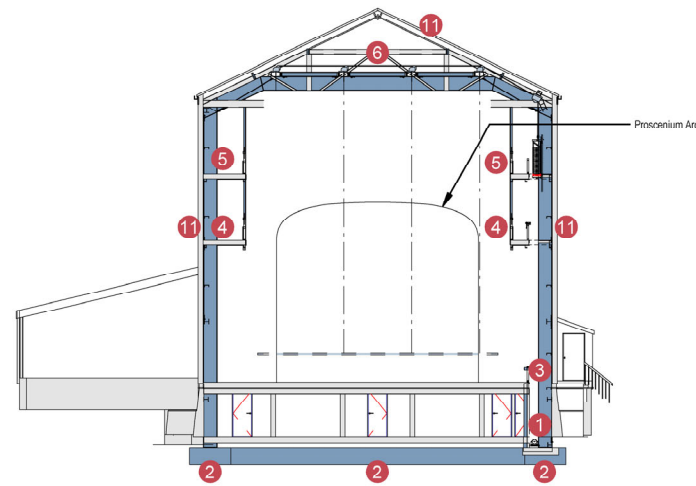
Allows for a new counterweight flying system to be installed within current building envelope.

- Delivers a counterweight theatrical flying system with improved functionality of the original fly tower is returned with greater load carrying capacity and ease of operation and safety.
 - Retains the existing stagehouse while requiring new structure to support a counterweight flying system.
 - The new flying system does impact on the available functional area of the stage and will require at least two people to operate.
 - Does not provide a comparative level of amenity in comparison to similarly refurbished theatres from around New Zealand.
 - Batten drift and sightlines remain an issue.
 - Theatre systems reinstated, not replaced and upgraded.
 - Construction within the existing building envelope raises the possibility of risk.
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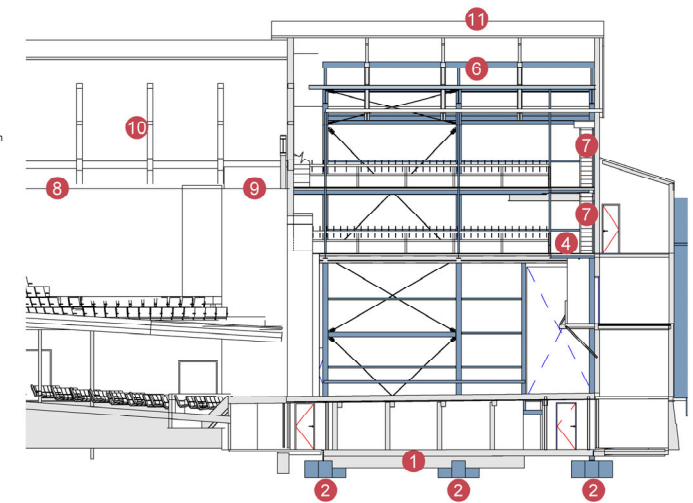
Option 2 - New counterweight flying system Installed within the existing building envelope



Stage Floor Plan



Cross Section



Long Section

1. Creation of trough for flying system idler pulleys to be housed and provide the required travel distance for the counterweight cradles.
2. New foundation pads & tie beams below the existing basement slab level for new structure to support Flying system
3. Line sets on Prompt & Opposite Prompt (OP) sides of the stage
4. Replacement of the existing fly floors on both Prompt and OP will need to be made to incorporate the theatrical flying system and support the load of stored counterweights.
5. New loading gallery is required above the fly floors on both Prompt and OP. Linked with a crossover
6. New walk-on grid structure that is wider and provides the ability to fit the grid blocks onto.
7. New staircase fly floor, loading gallery and the grid is to be installed.
8. Upgrade of rigging and support of the moving light bar FOH.
9. Upgrade of the rigging and support of the suspended speakers adjacent to the proscenium arch.
10. Providing safe access to the four FOH lighting positions.
11. Provision of vapour barriers, insulation, and wall linings to the stagehouse walls and roof.

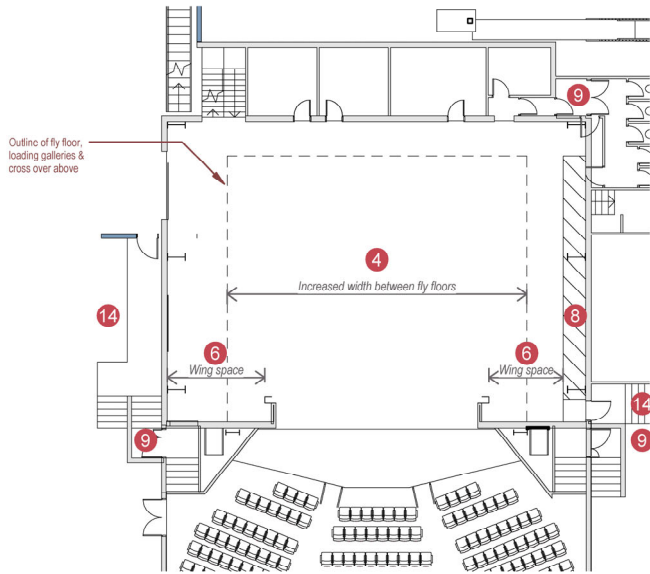
Upgrade Option Three

Allows for a new stage house and flying system

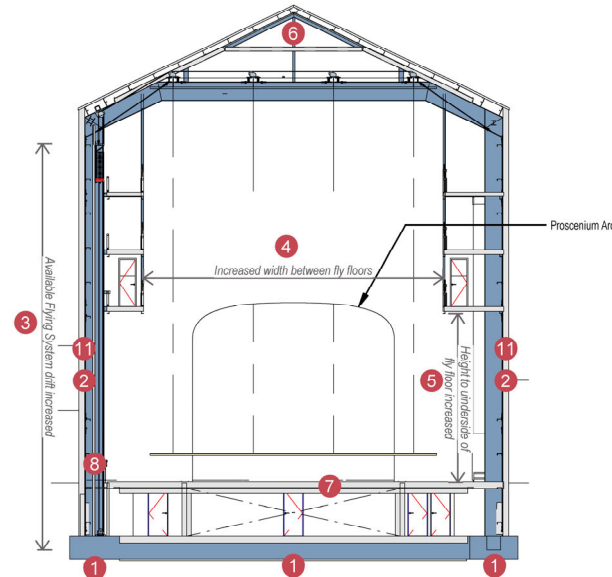
- Option 3 delivers a new larger stagehouse that enables current spatial constraints to be addressed.
- Counterweight theatrical flying system with improved sightlines from the gallery due to the increased stagehouse height and available drift.
- Wing space and clearance between fly floors increased addressing the shortcomings of Options 1 & 2.
- Theatre Systems replaced and expanded meeting benchmark requirements. Electrical Services to the stagehouse upgraded and replaced.
- Build simplified; Reducing working within existing foundations and envelope
- The level of facility and amenity increased to attract larger users
- New theatre systems infrastructure



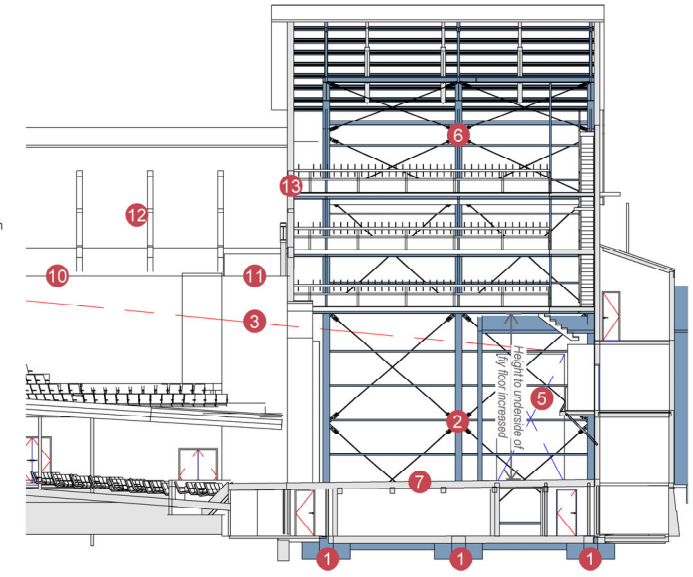
Option 3 – New Stagehouse and Flying System



Stage Floor Plan



Cross Section



Long Section

1. New foundations – the existing slab used as a dry slab for waterproofing.
2. New stagehouse structure minimises dead spots and enables better coverage of the flying system with the stagehouse.
3. Available Flying System drift increased, enhances sightlines.
4. Width between fly floors increased.
5. Height between stage and underside of fly floor increased.
6. Available wing space increased.
7. Flat floor provided in lieu of raked (including trappable portion of floor).
8. Flying system operation to one side of the stage.
9. Fire Egress Compliance from stagehouse addressed.
10. Replacement and upgrade of rigging and support of the moving light bar FOH.
11. Replacement and upgrade of the rigging and support of the suspended speakers adjacent to the proscenium arch.
12. Safe access to the four FOH lighting positions.
13. Removal or encapsulation of what appears to be asbestos cement sheet, on the proscenium arch wall between the stagehouse and auditorium ceiling space.
14. Addressing accessibility and accessible facilities to the stagehouse.



Upgrade Option Four

This option covers elements from back and front of house:

- Includes all items in option three.
 - Heating and cooling systems will be installed.
 - Addresses scene dock, green room and storage issues.
 - Orchestra Pit - resolves H&S issues and configuration
 - Building wide issues - accessibility, fire egress/passive fire, sustainability
 - Dressing rooms - strengthen and upgrade
 - Auditorium - improve seismic level, noise ingress, lighting and seating
 - Front of House - amenities, hospitality areas, merchandise, access and ticketing.
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