

THE PLAYHOUSE – STRUCTURAL CONCEPT

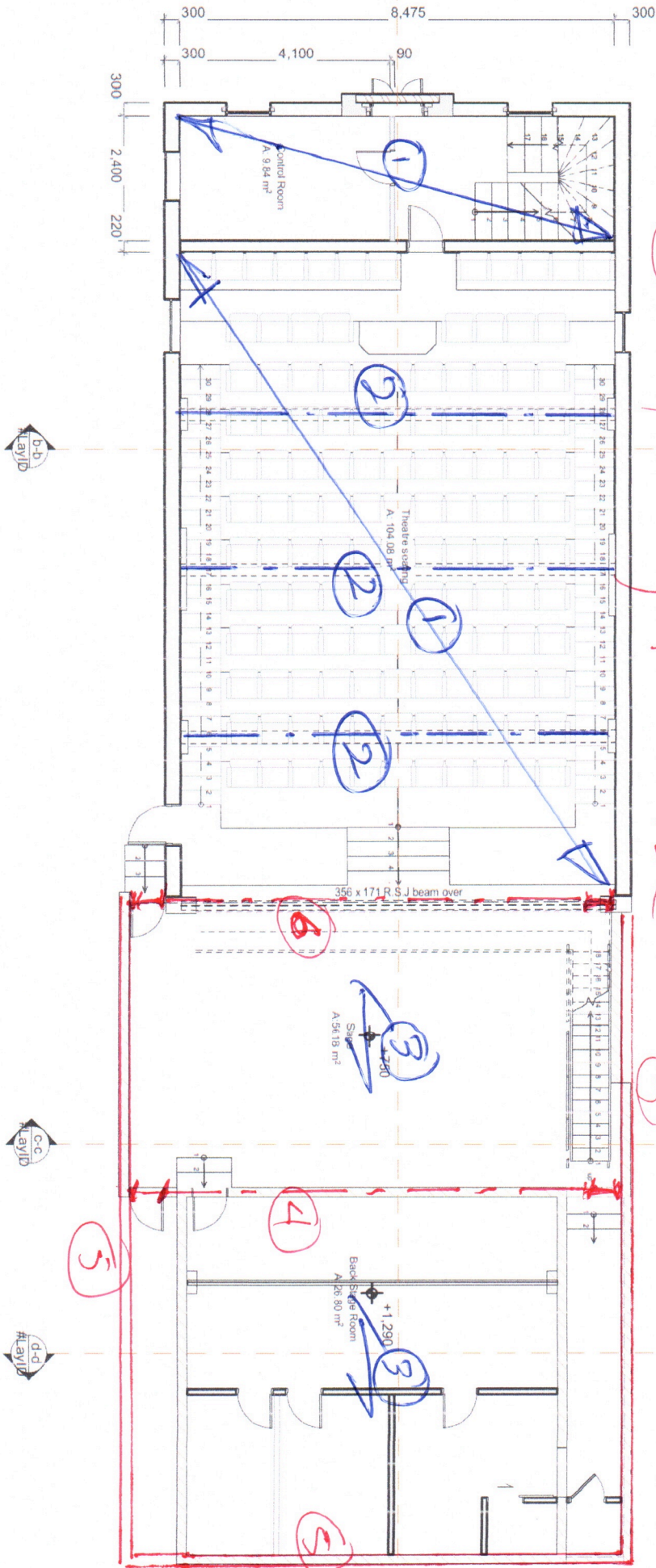
INITIAL DESIGN FEATURES STATEMENT

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- Importance level IL2 for Public Assembly Building less than 1000m² and less than 300 people congregate in one area
- Live load of 5.0kPa for assembly area without fixed seating for the first-floor lounge
- Earthquake strengthening to (near as reasonably practical to a new building) of at least 67% NBS.
- All new structure will be designed to 100% NBS.
- The strengthening required to achieve this are:
 - New plywood ceiling diaphragms over the ground and first floor of the original building,
 - Parapet strengthening on the front facade,
 - New seismic steel frame between the new and existing building.
- The design also includes strengthening the main beams supporting the first floor, as there is some live load deflection that can be felt in this area.
- Other floor structures will require further investigation at the next design stage.
- We do have existing use rights for the building so these do not require to be strengthened, but further checks should be carried out as part of the work to ensure there are no issues.

Ground Floor



- 1 Plywood ceiling diaphragm
- 2 2/300 R/C
- 3 DTS 300/15 curlins 2 lines back
- 4 310 UB 40 Portal
- 5 200x200 blackwork H16 @ 600 c/c
- 6 New/Exist Portal TBC

- ① Plywood ceiling diaphragm. Flat? Pitched?
- ③-⑥ As per ground floor
- ⑦ Rurogel strengthening

1st Floor

