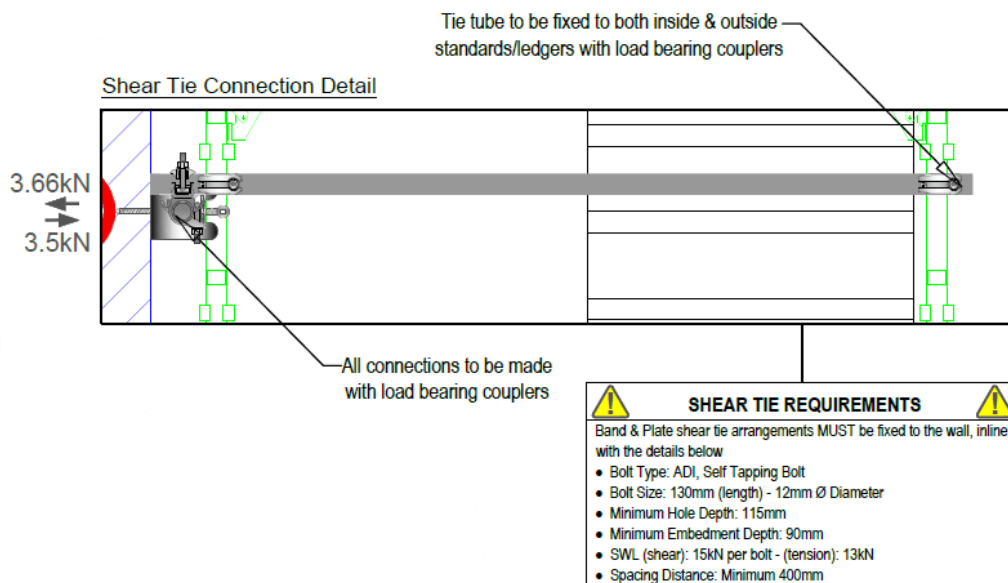


22-105 Palace Theatre**HAKI STAIR ERECTION AND DISMANTLING METHOD STATEMENT**

This document is to be read in conjunction with the previously submitted Drawings.

The proposed installation date of the temporary scaffold stairs is to be on 01/03/2023 and they will be dismantled on 01/08/2023 following completion of the proposed works associated with the installation of the proposed new plant on the roof of the Manchester Palace Theatre building and associated works internally.

The stair tower will be fixed back to the face of the existing external wall at positions indicated on drawing no. BDS-9108-01 and will be at 4 m intervals. And as per the submitted Shear tie connection detail drawing.



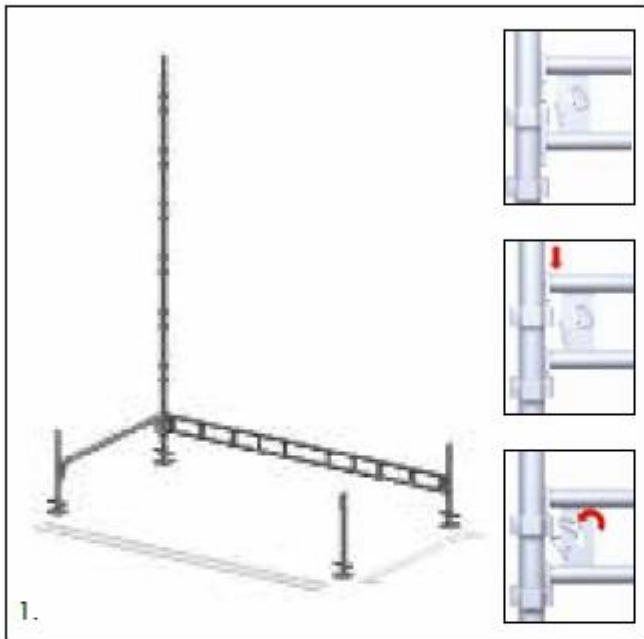
It is worth noting that these fixings will be into an existing relatively modern brick wall. There will be 10 no. fixings made in the wall with each fixing forming a 12 mm diameter hole and using bolts. The proposed stairs will cover an area of approximately 18m (h) x 3m (w) in front of the wall.

The Following methodologies for the erection and dismantling of the Haki stairs have been extracted from manufacturer manuals.



ERECTION

Before erecting the stair tower, check and flatten out the ground. The ground must not be subject to uneven settlement. The ground's bearing capacity may be improved with the help of sole pads.



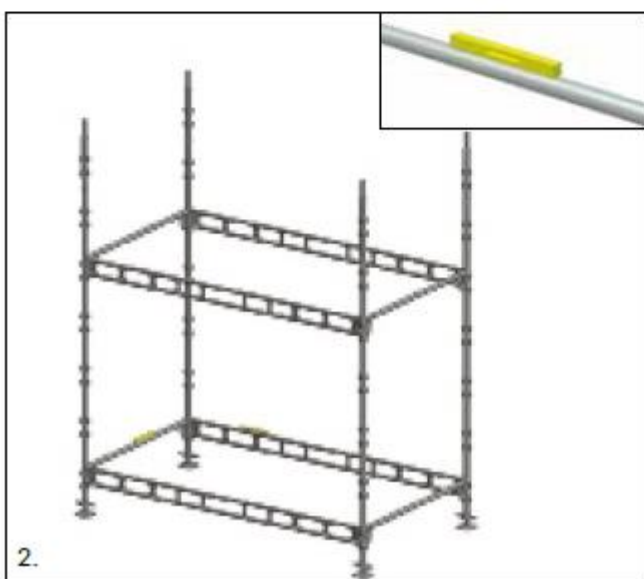
1. Erect the first standard and fit a transom and ledger beam to it.

The beams are fitted to the lowest group of pockets on the standard.

Lock the beams into position.

Fit standards and beams in order to complete the first lift.

If necessary, fit a plan brace in order to ensure that the stair tower is square.



2. Fit the transom and ledger beams for the second lift depending on the type of stair flight to be used.

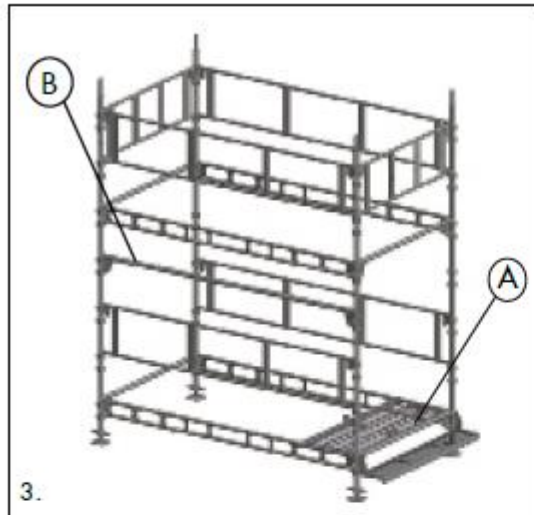
Then check the levels in both the transverse and longitudinal directions using a spirit level and adjust using the base jacks.

Fit the vertical diagonal braces and correct the vertical alignment of the standards.

Alternatively, brace the stair tower vertically using guardrail frames.



ERECTION

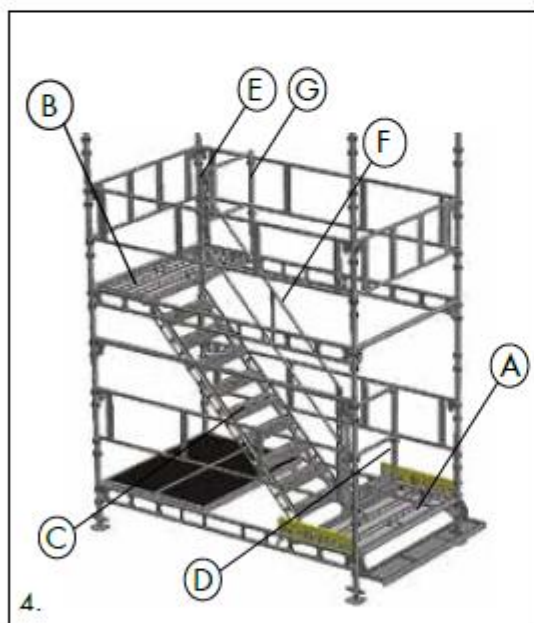


3. Install the first landing A so that the hooks rest on the ledger beams. Hook on an entrance step for easy access to the lowest lift.

Install 3050 guardrail frames at the lowest level.

Guardrail B should always be fitted every half metre next to 2.0 m stair flights. A 3050 single ledger can replace a 3050 guardrail SKR.

Install the second lift with guardrail frames in both the transverse and longitudinal direction.



4. Stand on an erection platform or Steel Decks and install the second landing B.

Hook a stair flight C into the pockets of the landings.

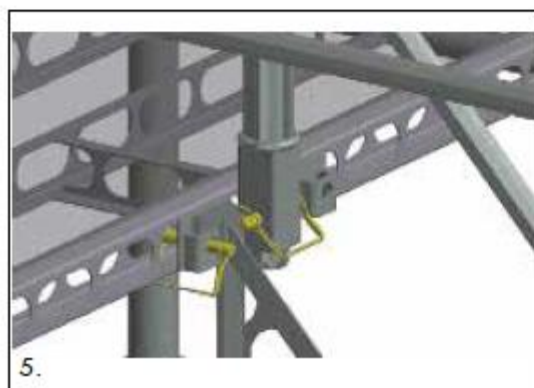
Install a safety gate D on the lowest landing and a handrail post E on the next level and lock them using locking hooks.

Fit a handrail F and lock it. From behind the handrail, install a top guard frame G.

Fit toeboards at the lowest level.

Anchor the stair tower to the wall using ties.

Tie the stair tower to structure using tube with load bearing couplers through both standards.

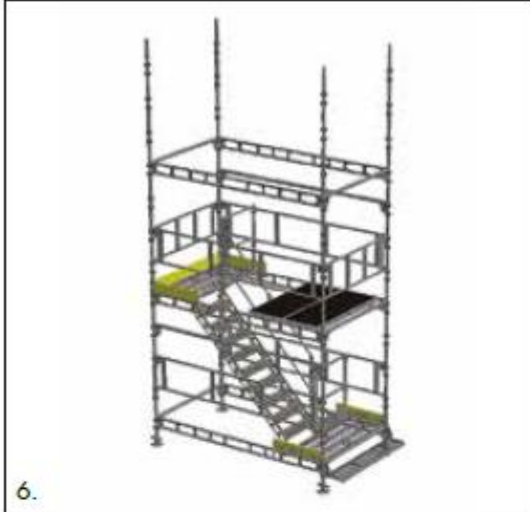


5. The stair flight should be locked in the landing using locking pins (2 per flight).

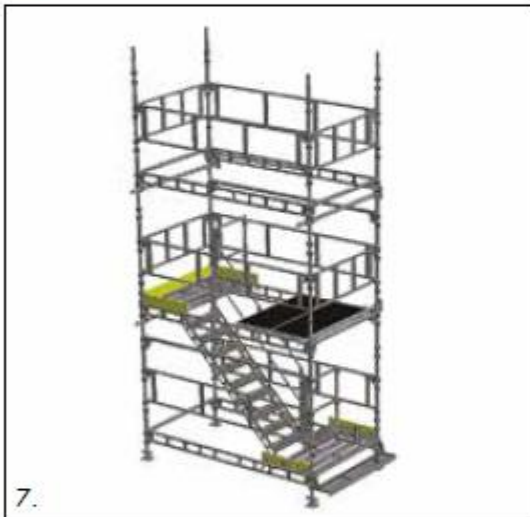
For traditional stair tower, in the event of anticipated excessive wind conditions, it is recommended that the flights are secured (at the outboard top edge) by the use of a suitable, disposable strap.



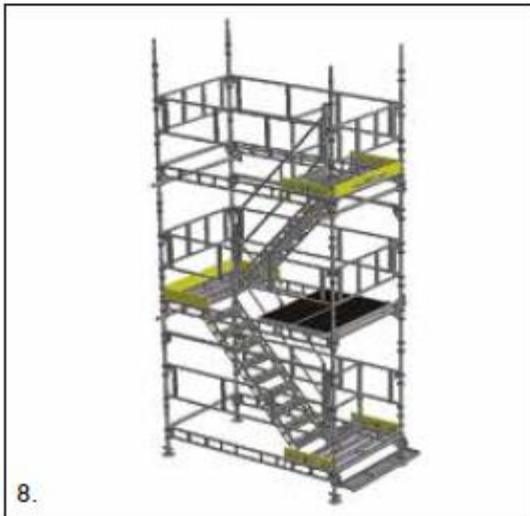
ERECTION



6. Lift up the erection platforms to the next level and install the next set of standards, transoms and ledger beams for the third lift. Install toeboards.



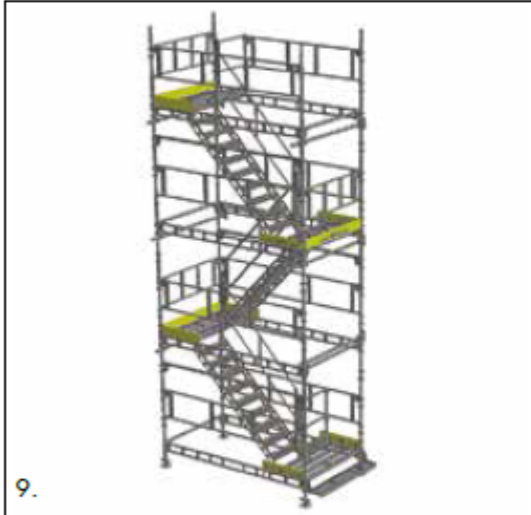
7. Install guardrail frames to next lift using AGR tools.



8. From the erection platforms, install the next landing. Remove the top guard frame. Install a stair flight, hand-rail post and handrail. Install all the toeboards, top guard frame and ties.



ERECTION



9. Continue erection up to the desired height as set out above.

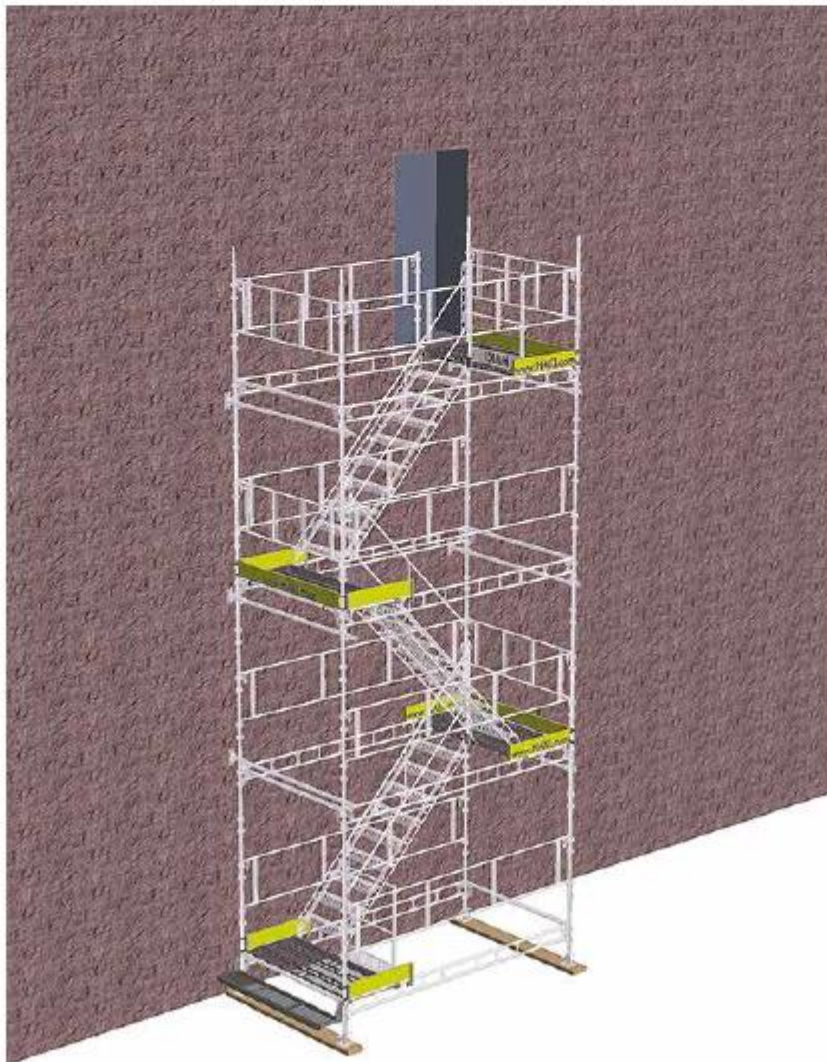
Use approved lifting equipment for transporting materials.

At exits on the long side of intermediate lifts, guardrail frames 3050 are replaced by 2357 or 2210 guardrail frames installed with the aid of a guardrail post.

On the top lift, guardrail frames are installed in both the transverse and longitudinal directions as well as toeboards and a safety gate. At exits on the long side, a 2357 guardrail frame or 2210 guardrail frame is installed, with the aid of a guardrail post if required.

**DISMANTLING****Information on safety when dismantling**

1. Do not throw or drop materials to the ground. This may damage the material or cause personal injury. The materials must be lowered down to the ground by means of ropes or slings or passed down by hand.
2. If intermediate ties or tie rod tubes have been installed, they must not be removed until the dismantling process reaches the level in question.
3. Always observe and comply with the regulations published by the local authorities concerned.
4. Dismantlers should always be clipped to a single ledger or ledger beam during dismantling.
5. Reference should also be made to the section "Information on safety when erecting and dismantling" on page 9 in this manual.



6.5m Symmetrical Stair Tower

**DISMANTLING****1. Remove all the toeboards.**

From behind the handrail, remove the top guard frame, the clip on post and the 2210mm guardrail frame.

Install two erection platforms or steel decks below the top landing and a temporary 1655mm ledger beam using AGR tools.

**2. From the erection platforms, remove the handrail and handrail post.**

Remove the stair flight.

Re-install the top guard frame.

**3. From the erection platforms remove the top landing.**

Remove all the guardrail frames using AGR tools.

**4. Remove lift and ties.**

Repeat same dismantling procedure until dismantling is complete.

For other dismantling procedures, please contact HAKI's technical department.

INFILL TO HOLES

Following removal of the temporary stairs the remaining holes in the existing brick wall will be filled. Where the holes were formed in brick this will be using a mix of mortar and brick dust. The colour of the infill will be mixed to match the colour of the surrounding brick. Where holes were formed in mortar these will be filled and pointed with mortar to match the existing.

Following the erection of the stairs and whilst they are still in place, samples of the proposed mortar mixes for use in the repair of the holes, will be provided. These samples will be available on site for viewing by the conservation officer for approval prior to the infilling of holes.