Oxford Humanities

Operation & Maintenance Manual

PIPE GRID

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Revision :	B
Date of Issue :	22/12/2025
Project Code :	4334

J&C Joel

Contents

1. Document Control

1.1. Identification

Client: Laing O'Rourke

Project Name: Oxford Humanities

J&C Joel Project Reference: 4334

Document Name: Pipe Grid - Operation & Maintenance Manual

Document Reference: 4334-22-OM-0001

1.2. Document History

Rev	Date	Description	Author	Checked
A	13/08/2025	First Issue	JC	SS
B	22/12/2025	As per consultant comments	JC	SS

1.3. Contact Details

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1.4. Warranty

Limited warranty is valid for twelve (12) months from the date of practical completion and handover to the client or clients representative (whichever occurs first.)

1. The warranty shall be limited to the free supply of replacement materials and workmanship for the faulty materials or workmanship and shall not cover other damage or defects how so ever caused.
2. It shall be the client's responsibility to notify J&C Joel Ltd for any defects in the machinery and the warranty shall be void if repairs or other works were carried out by third parties.
3. This warranty shall only apply to the areas where J&C Joel Ltd have been applied and completed the works.
4. The supply of replacement materials and workmanship under this warranty shall in no event exceed the quantity specified and supplied and shall only be applied to proven defective areas by checking and tests conducted under the control of the owner, the consultant or its representative and J&C Joel Ltd or its representatives.
5. This warrantee shall be interpreted according to the laws of the United Kingdom.

1.5. Copyright

This document contains material that is proprietary to J&C Joel Ltd. This information is provided on the understanding that it is used solely for the purpose of information, installing and maintaining the equipment described, and that it will not be revealed to third parties or otherwise disposed of without the prior written consent of J&C Joel Ltd.

Copyright for all design, software, electronic circuits, drawings and the text of this manual remains with J&C Joel Ltd. This publication or parts thereof may not be reproduced in any form, by any method, for any purpose. Further copies may be obtained from J&C Joel Ltd. on request.

2. How to use this manual

Read the instructions carefully before use and follow them accordingly. Keep this document safe for future reference. Non- observance of these instructions may lead to hazardous situations and / or malfunctions or to failure of the equipment, resulting in damage or injury.

The user is advised not to operate or undertake any work on the system without first reading and understanding the contents of this manual.

All maintenance should be carried out strictly in accordance with the instructions contained in this and the manufacturer's reference manuals attached and undertaken by suitably trained and qualified personnel.

This manual describes the J&C Joel supplied pipe grid at the Oxford Humanities building. This information is pertinent to both spaces where the lifting points are installed. Servicing or repairs of main fault conditions is not covered; in such cases please contact J&C Joel immediately.

This document is intended to provide the user with sufficient information to allow maintenance of the equipment described.

If in doubt about anything contained in this manual please contact the Projects Department at J&C Joel Ltd. T: +44 (0)1422 833835 – E: ukprojects@jcjoel.com

3. General

The pipe grid is installed in the rehearsal room. It consists for 49 node points that connect the pipe grid to the existing building steelwork at 6,000mm off FFL. Below each node point there is a proprietary drop rod connected to saddle bracket that connects to a intersection plate. Via 'U' bolts, 48.3x4mm CHS bars are connected back to the node point. The pipegrid is formed of squares, nominally 1.3m x 1.3m on each side.

The pipe grid is deigned to take a UDL of 0.5kN per linear metre. Do not exceed the stated load. The design intent is to allow a fully flexible space, with the intention that lanterns, speakers (via proprietary hook clamps) or other hanging objects can be fitted to the grid and moved around the space.

3.1. List of Drawings

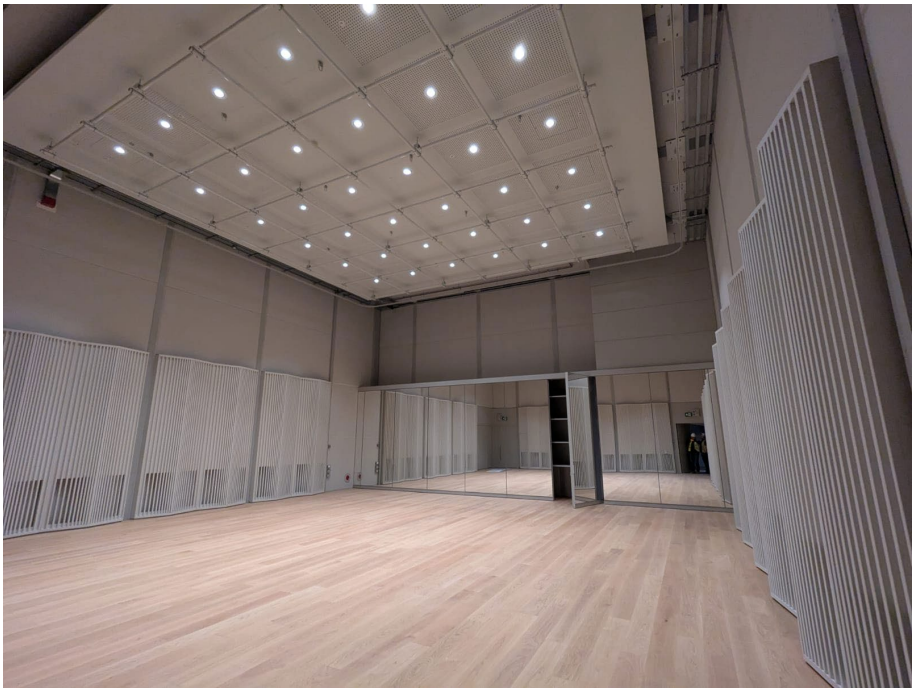
DRAWING NO.	TITLE
UOONHB-JCJ-RS-ZZ-DR-OT-220001	Rehearsal Room - Pipe Grid - GA Plan
UOONHB-JCJ-RS-ZZ-DR-OT-220002	Rehearsal Room - Pipe Grid - Section Details

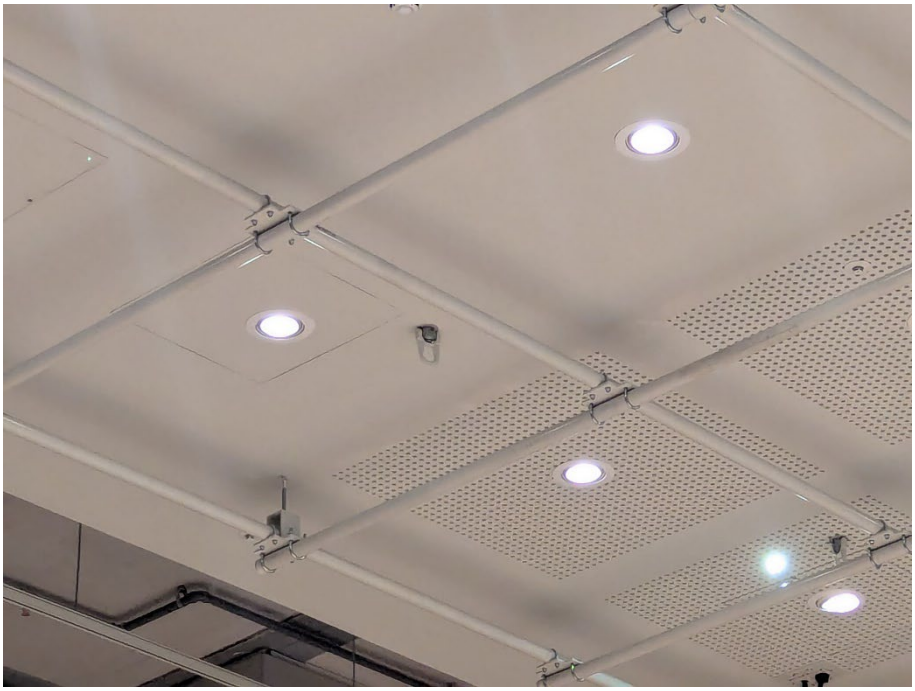
3.2. Care when using

1. It is advised that protective gloves are worn when attaching to or using the pipe grid.
2. Consideration for the use of a bump cap or hard hat is recommended when working around rigging systems.
3. Extra care should be taken when moving or lifting rigged items during low light levels such as during a theatre set-up.
4. Care should be taken when accessing the pipe grid via temporary tower or MEWP. Only trained and competent persons should do so.
5. It is advised that prior to first use of the pipe grid by new people, training should be offered to ensure they are comfortable and confident in using the points.
6. Care should be taken to load the pipe grid in a controlled manner. It is not designed to take 'drop ball' loads.
7. Extra care should be taken to avoid lateral loads. The pipegrid is not designed to be used in this manner.
8. Regular inspections of the node points, including fixings (at least once every twelve (12) months) should be carried out by trained and competent people. This may need to be more frequent depending on the actual usage of the grid.
9. If you are unsure – ask.

4. Pipe Grid

The Rehearsal Space, the pipe grid is shown in the ceiling.






WLL: 50 kg/m
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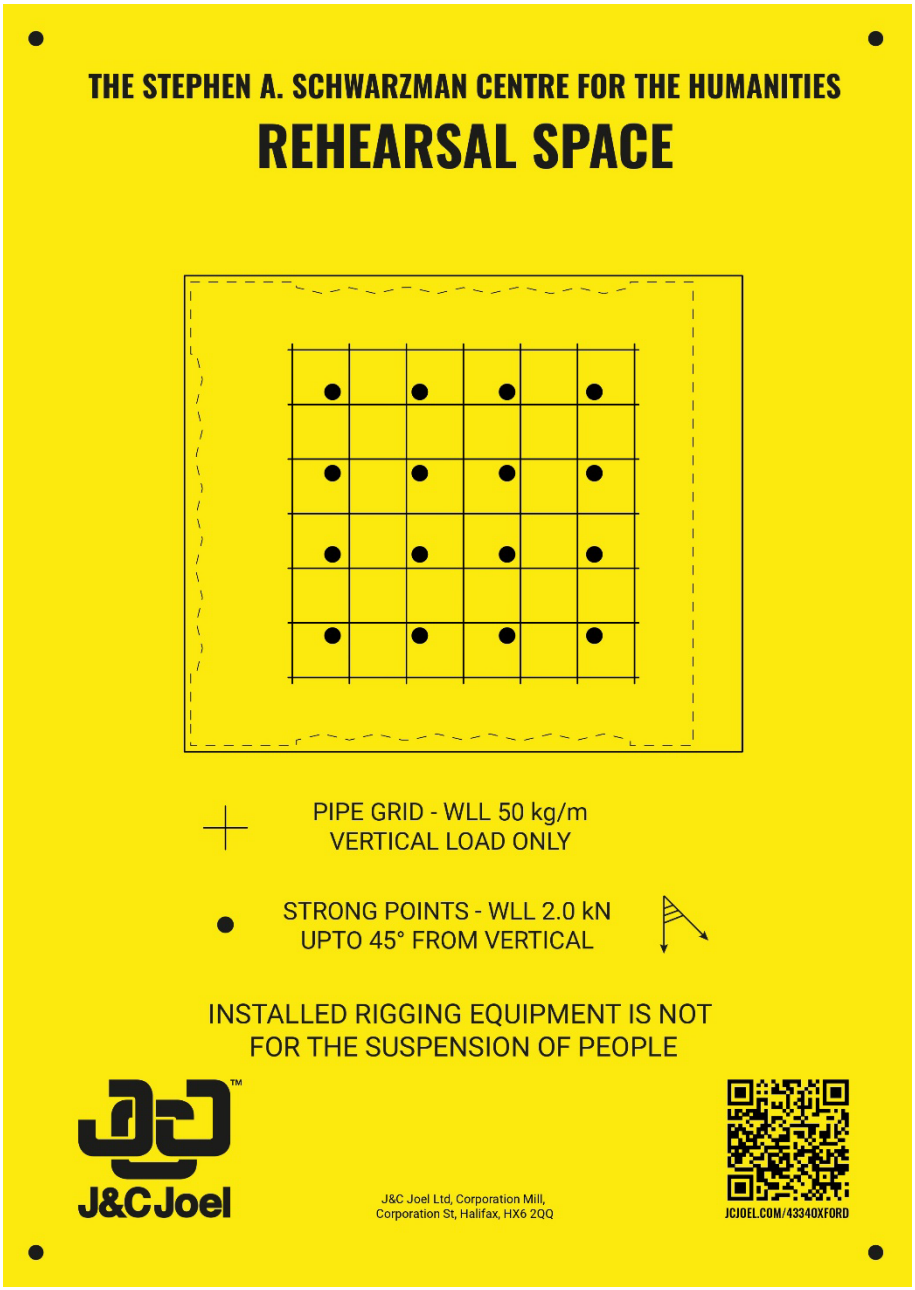
This is the signage that is applied to the pipe grid. It is applied at three positions along each bar and is only visible when at high level.

The room signage for the Rehearsal Space venue.



5. Maintenance

5.1. ML02 Inspection sheet

Inspection Notes:

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Inspector:

Name: _____ Signature: _____ Date: _____

Maintenance Manager:

Name: _____ Signature: _____ Date: _____

Maintenance Inspection

The Maintenance Manager or Inspection Engineer should check off each item on the **ML01 Inspection Check Sheet** as "Pass, Fail, or N/A" (not applicable to this item).

If any of the items are checked as "Fail", the Maintenance Manager or Inspection Engineer must compile a separate Snagging Sheet and arrange for immediate rectification of the faults. Once these have all been corrected the relevant "Rectified" box on the ML01 document must be checked off and this page ML02 must be signed and dated by the Inspector or Maintenance Manager.

The section "**Inspection Notes**" above is intended for recording any snag that is found during the inspection that may have not been included in the tick sheets for the item of equipment, these snags must be included on the Snagging Sheet.

As soon as this document has been signed, the relevant section of the Maintenance Inspection Report must be checked off, initialled and dated.

5.2. ML01 Check Sheet

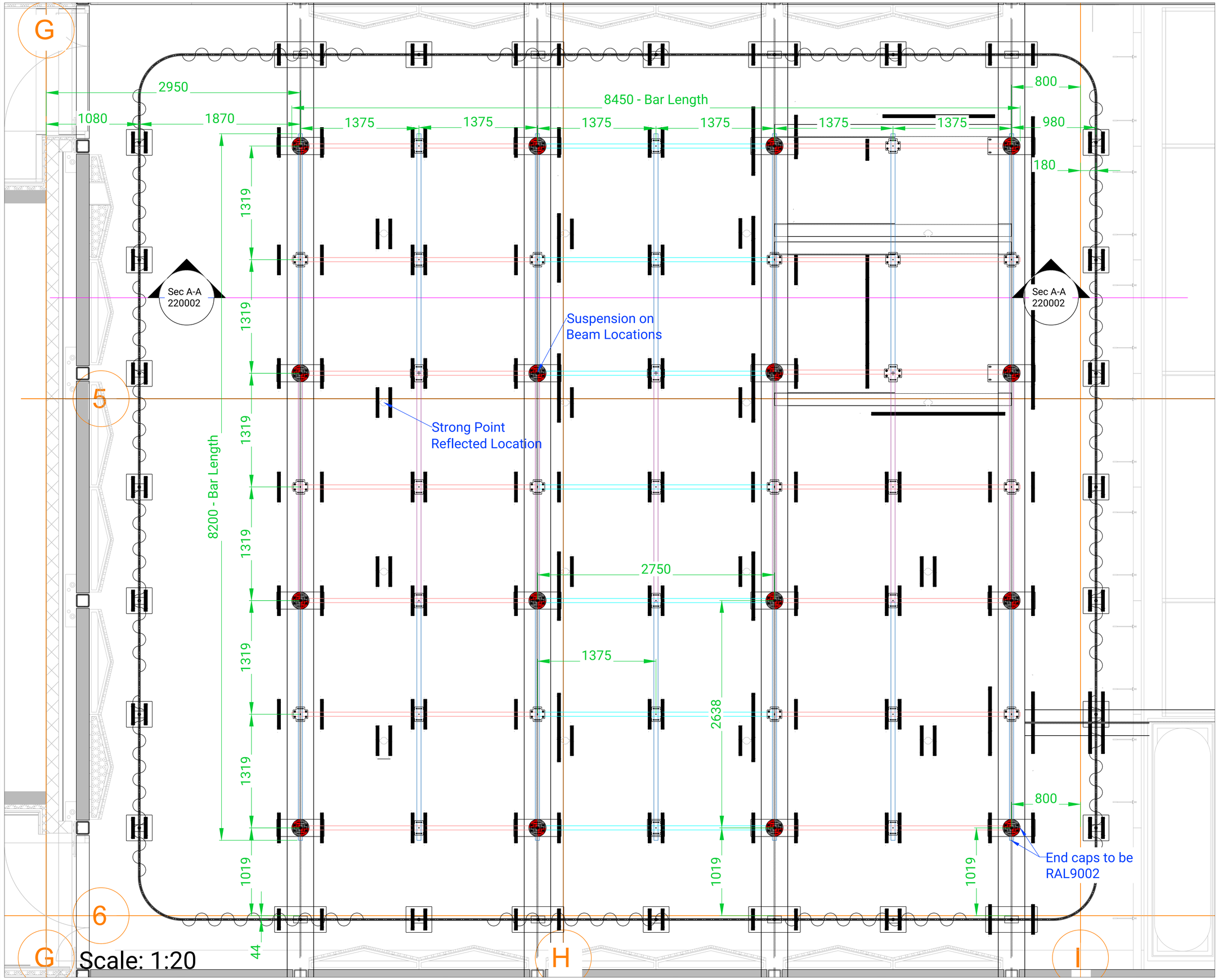
Pipe grid

		Pass	Fail	Rectified	N/A
1	**Appearance**				
1.1	Check the pie grid node points are free from obvious damage, including major finish loss	☐	☐	☐	☐
1.2	Check if there is obvious damage or deformity to the tubes	☐	☐	☐	☐
1.3	Check the general finish on the tubes	☐	☐	☐	☐
1.3	Check the loading notices are still in place on the bars	☐	☐	☐	☐
2	**Mechanical**				
2.1	(At least once every twelve (12) months,) check the fixings back to the existing steelwork. Are they still correctly tightened?	☐	☐	☐	☐
2.2	Check for no obvious damage or deformity to the U clips or interface plates	☐	☐	☐	☐

Please note the above inspection must be carried out at least once every 12 months. This may need to be more frequent depending on the actual usage of the points, this will form part of the venue's internal risk assessment.

6. Referenced Drawings

The drawings are shown overleaf.



REVISIONS

REV.	BY	DESCRIPTION	DATE
P01	JR	FIRST ISSUE	26/04/2024
P02	JR	REVISED AS PER COMMENTS	15/05/2024
C01	JR	RESPONSE TO CONSULTANT'S COMMENTS	21/05/2024
C02	SH	For Record	28/04/2025

Notes:

Pipe Grid Arrangement based on the As-Built Halfen Channel Locations

Drawing to be read in conjunction with;
UOONHB-JCJ-RS-ZZ-DR-OT-220002

All equipment to be powder coated RAL 9002 semi-gloss unless otherwise stated.

Bolts and other Fixings to be self-colour BZP.

WLL of Bar: 0.5kN/m

Each hanger (except U-Bolt) to see;
- Unfactored Load: 5.82kN
- Factored Load: 11.42kN

Each U-Bolt to see 0.7kN

Structural calculations are in document:
UOONHB-JCJ-RS-XX-CA-OT-220001

- Suspension Hangers on Beam
- Intersection Clamp
- 7 OFF 2750mm L (48.3x4mm CHS)
- 14 OFF 2850mm L (48.3x4mm CHS)
- 7 OFF 2667mm L (48.3x4mm CHS)
- 14 OFF 2767mm L (48.3x4mm CHS)

All dimensions in mm unless otherwise stated. Do not scale.

DRAWN:	SH	DATE:	28/04/2025
CHECKED:	JC	DATE:	28/04/2025
APPROVED:	OS	DATE:	28/04/2025
SCALE:	ON SHEET	PAPER SIZE:	A1

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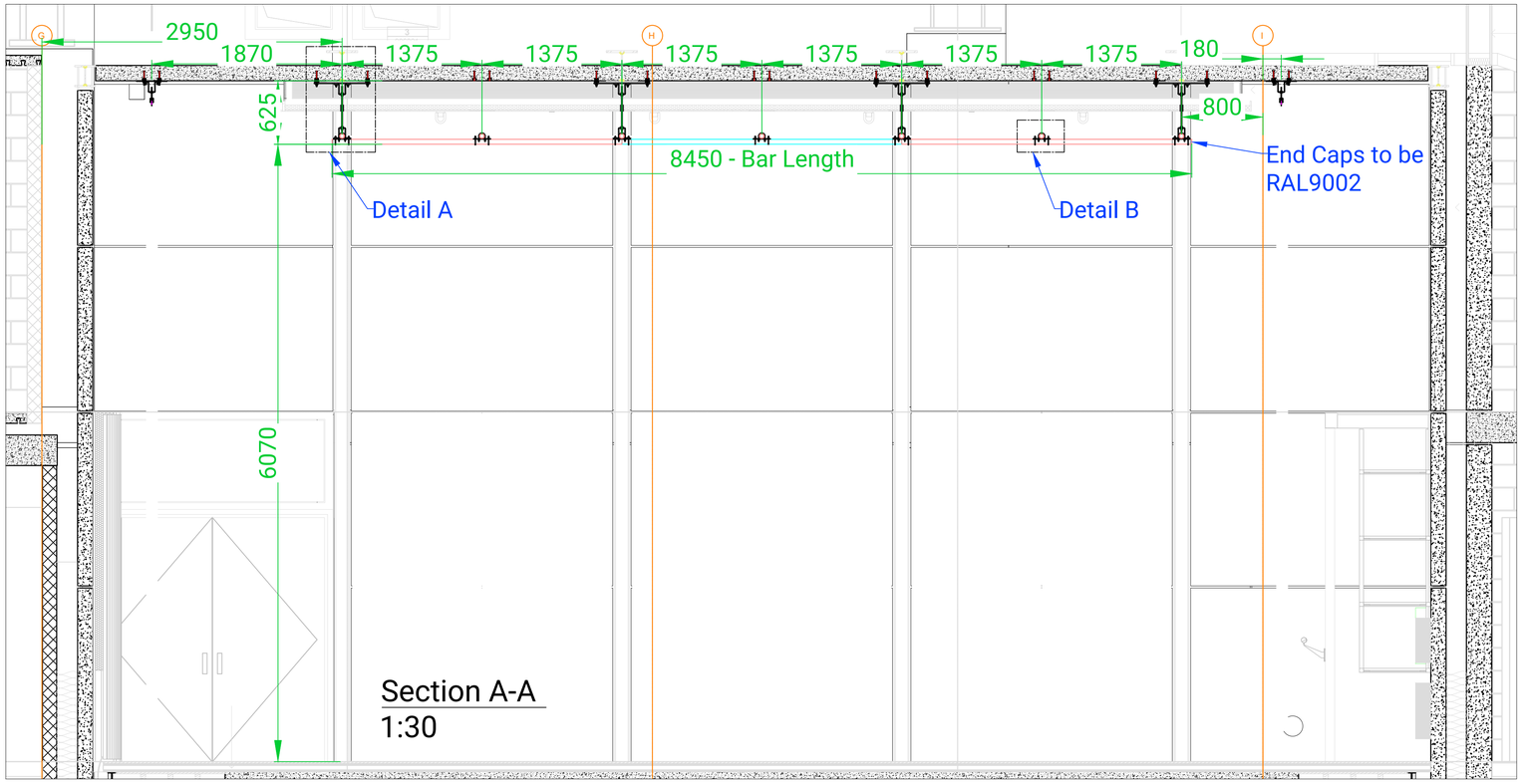
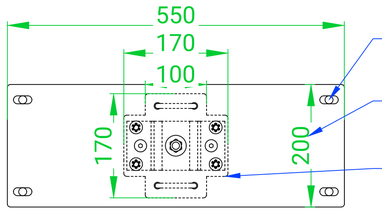
PROJECT	4334 - OXFORD HUMANITIES
DRAWING NO.	UOONHB-JCJ-RS-ZZ-DR-OT-220001
TITLE	Rehearsal Room Pipe Grid GA Plan
PURPOSE	A5 - Accepted as Suitable for Record
	REV C02



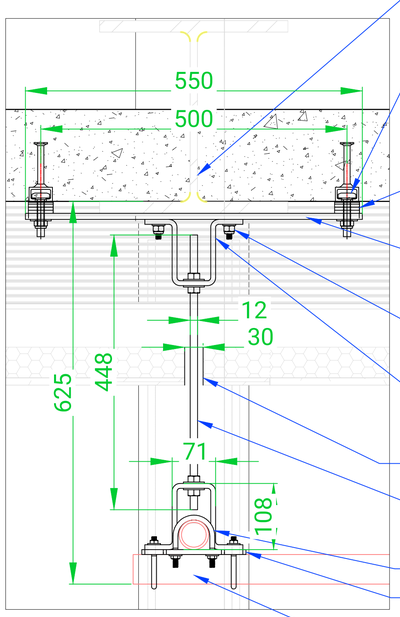
Section A-A
1:30



13x30mm Slotted Hole
for Flexibility

Saddle Bracket

Intersection Plate



Existing Beam

M12 Halfen Channel
bolted connection
HTA 50/30P M12x60

40x40 Packing Shims
Various thickness

550x200x10 MS
Plate

M10x40 CSK from
10mm MS Plate

Bespoke Saddle Bracket
MS 8mm Thick

Ceiling Opening TBC by OTHERS

M12 Threaded Bar
w/ Unistrut Nut

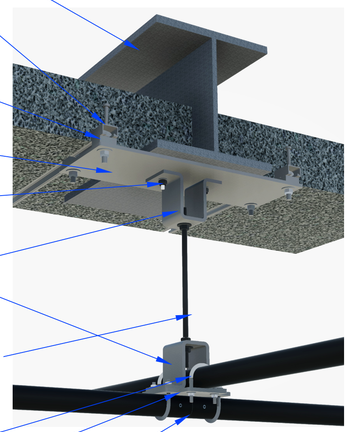
Doughty U - Bolt - T33400

Intersection Plate
made of S275 MS 8mm Thk

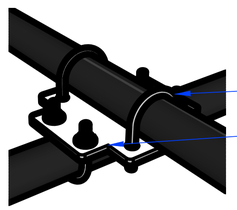
48.3x4 CHS Bar; Joints using
Double Splice Lock

Detail A
1:5

Pipe Grid on Beam/Halfen
Channel Suspension



Intersection Bracket

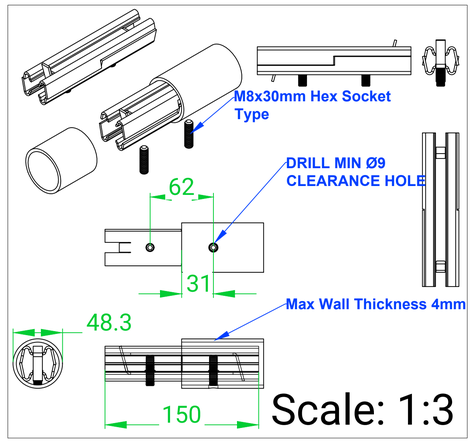


Doughty U - Bolt - T33400

Intersection Plate
made of S275 MS 8mm Thk

Detail B
-

Double Splice Lock for Bar Joints



Scale: 1:3

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CHECKED:	JC	DATE:	28/04/2025
APPROVED:	OS	DATE:	28/04/2025
SCALE:	ON SHEET	PAPER SIZE:	A1

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PROJECT	4334 - OXFORD HUMANITIES
DRAWING NO.	UOONHB-JCJ-RS-ZZ-DR-OT-220002
TITLE	Rehearsal Room Pipe Grid GA Section Details
PURPOSE	A5 - Accepted as Suitable for Record
REV	C02