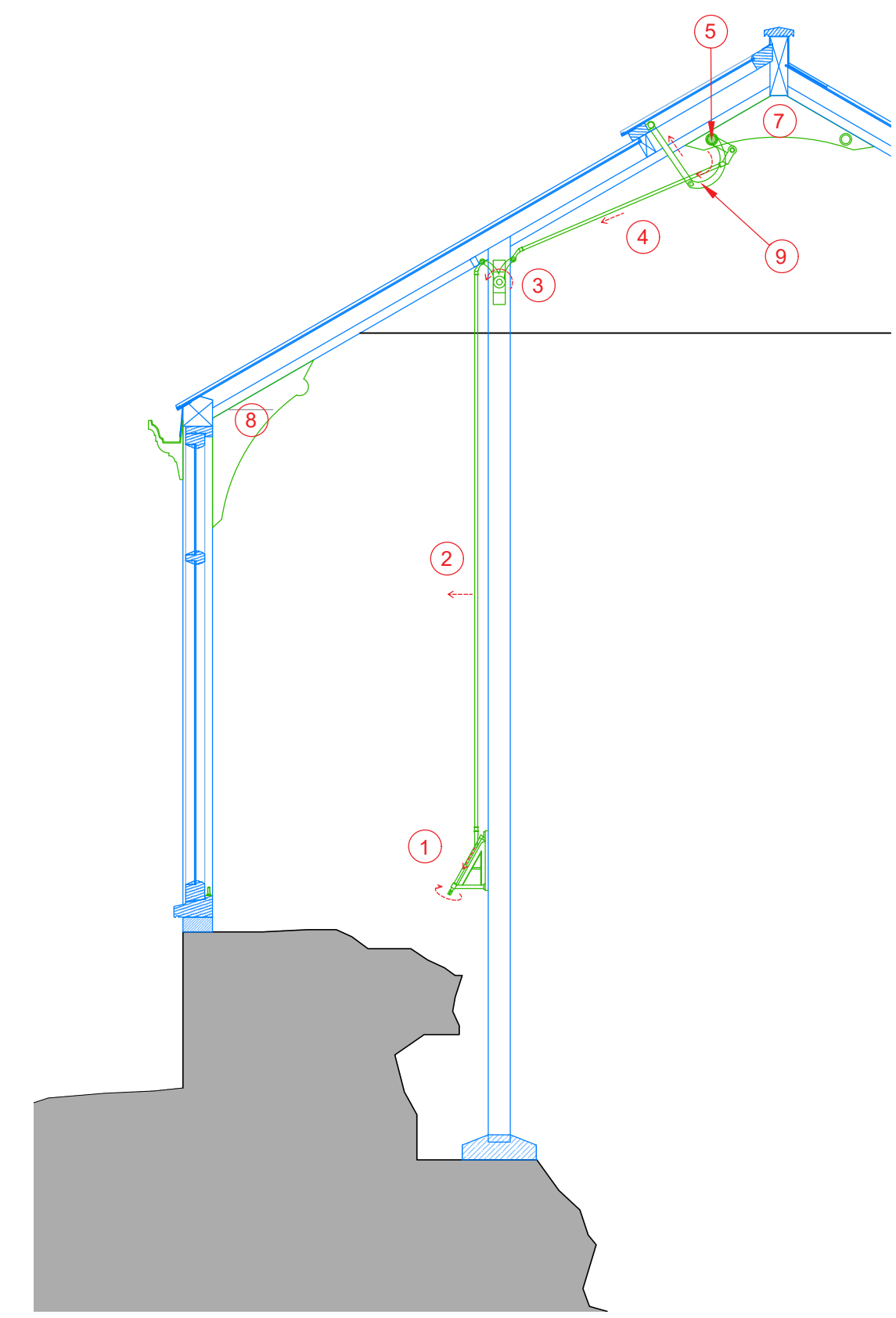
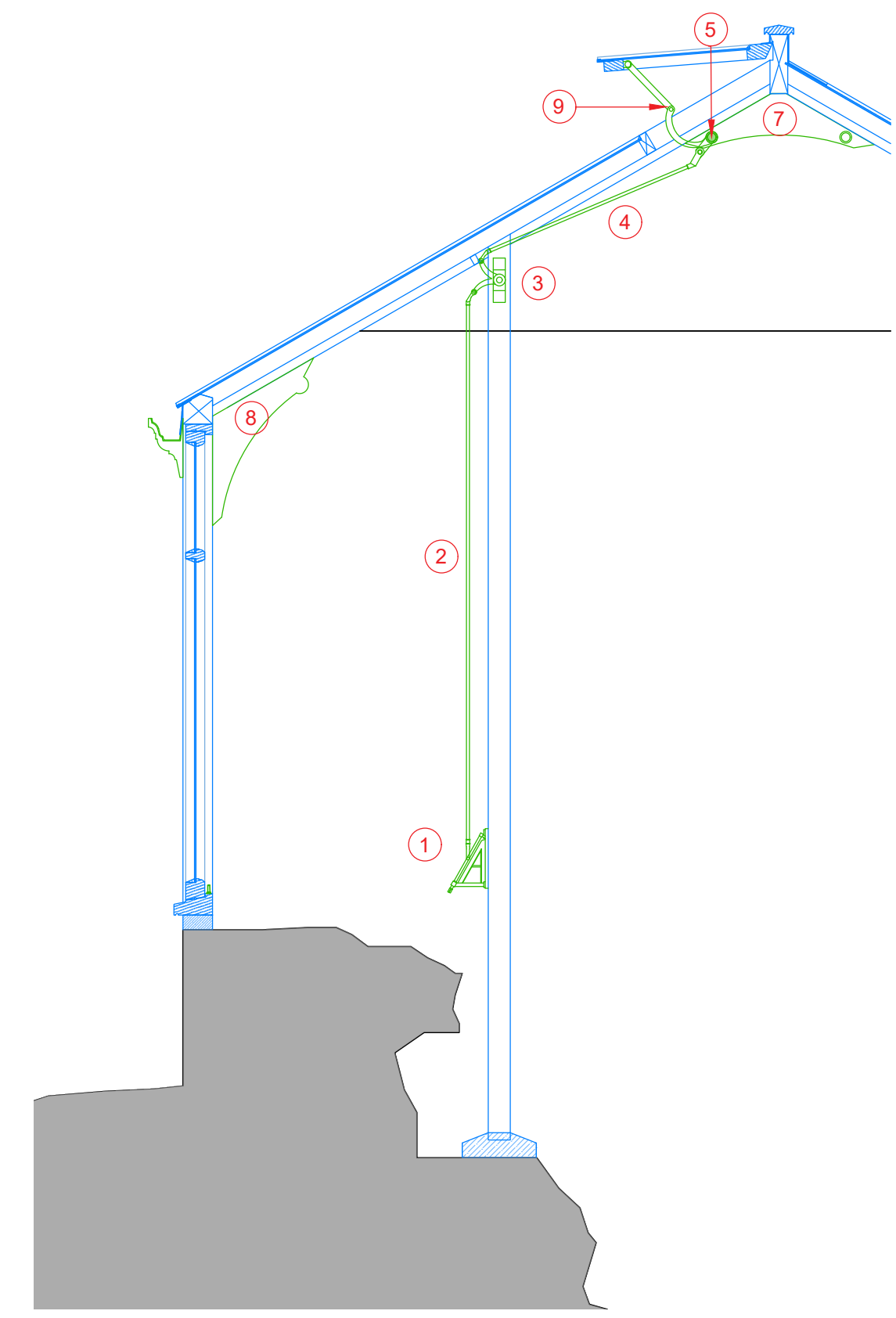




1 Ventilating Mechanism in Closed Position
3005 1:20@A1



2 Ventilating Mechanism in Open Position
3005 1:20@A1

1 Screw Winch



Total 2 no. winches required, both existing ones intact, one with threaded coupling missing.

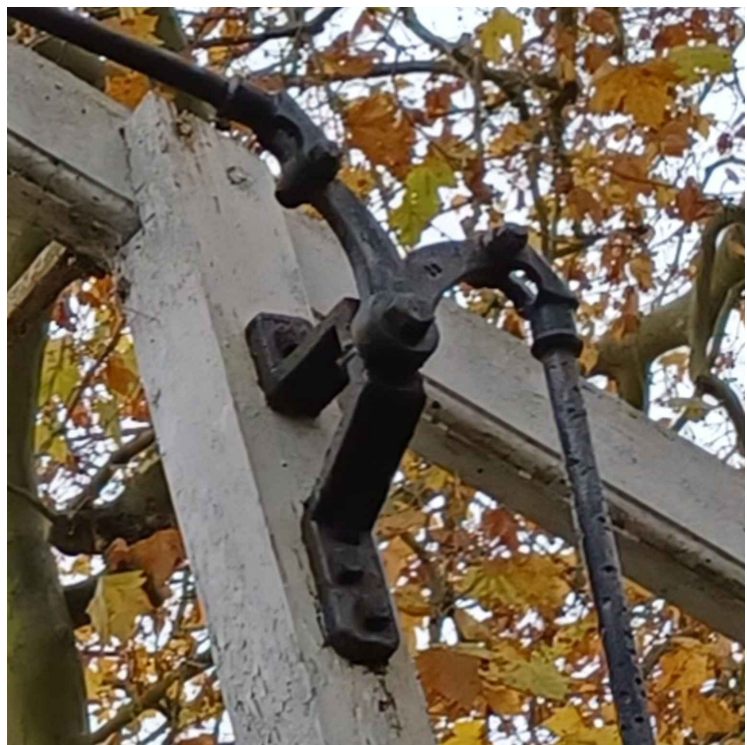
Repair 2 no. cast iron winches with likely replacement mild steel threaded rolls - Ease and adjust threaded rod. Allow for stabilisation if any cracks are showing on cast iron winch prior to moving any parts. Clean flaking paint with manual tools and treat for rust. Redecorate to match existing.

Source for salvaged Whitworth (BSW) coupling nut matching existing where possible. Allow for new coupling to be made from mild steel if no existing piece can be found, to match existing.

2 Operating Shaft

Vertical connecting shafts have broken off from both sets. Replace 2 no. mild steel operating / connecting shafts from winch to ventilator arms.

3 Bell crank



Total 2 no. bellcranks required, one intact with lever, one has lever half broken off.

Braze broken lever arm is missing piece can be found. Allow for fabricating and bolting new steel arm is original piece cannot be located once leaves are cleared, with associated clevis joint to rod.

Ease and adjust both bell crank levers. Allow for stabilisation if any cracks are showing on cast iron prior to moving any parts. Clean flaking paint with manual tools and treat for rust. Redecorate to match existing.

4 Connecting Rod

At least one rod is intact with clevis joints to both ends. Ease and adjust. Clean flaking paint with manual tools and treat for rust. Redecorate to match existing.

One rod may be missing, allow for replacement in mild steel, decorate in black to match existing, with associated clevis joints to both ends.

5 Main Vent Shaft



Allow for straightening of existing main vent rods, which are slightly bowed when removed. 2 no. in total, one to north wing and one to west wing.

Clean flaking paint with manual tools and treat for rust. Redecorate to match existing.

Replace any missing length /section with mild steel in matching diameter, thread type on the ends, and lengths between joints. Joined to existing sections with threaded coupling matching existing.

6 Mounting Plate



Total 2 no. mounting plates needed, one to each wing, at hip.

Clean flaking paint with manual tools and treat for rust. Redecorate to match existing.

Allow for replacement of 1 piece in mild steel matching existing (only one intact plate was identified on site visit on the 28th January 2026, the second piece is presumed to be concealed under leaf debris - to be confirmed once ground has been cleared).

7 Ridge Brackets



Total 6 no. ridge brackets required, 4 no. to north wing and 2 no. to west wing.

2 no. intact, mounted on vent rod. Clean flaking paint with manual tools and treat for rust. Redecorate to match existing.

2 no. broken, with broken off edge still mounted on vent rod. Clean flaking paint with manual tools and treat for rust. Stitch fragments back to bracket, and braze the surface seams for better weathering protection. Redecorate to match existing.

In case any missing fragments cannot be found, allow for templating missing geometry from the intact bracket, and fabric replacement parts in mild steel, and mechanically fix back to brackets.

Should any piece be missing completely. replace in mild steel bracket to match existing, redecorated to match existing.

8 Eaves Brackets



Total 5 no. eaves brackets required, to north wing only between timber posts and primary rafters.

4 no. intact, 1 no. likely buried under leaf debris. Clean flaking paint with manual tools and treat for rust. Redecorate to match existing.

In case the missing piece cannot be located. replace in mild steel bracket to match existing, redecorated to match existing.

9 Ventilator Arm



Total 8 no. ventilator arms needed, 5 no. to north wing and 3 no. to west wing.

Only curved crank arms remain, short section of straight drop link between the curved arms and ventilator frames appear to be missing. Allow for replacing these straight rods and associated joints in mild steel, to specialist metal contractor design of shape and dimension that allow the ventilators to open correctly and sympathetic to the overall appearance of the historic system.

For existing curved arms, clean flaking paint with manual tools and treat for rust. Redecorate to match existing.

Notes:
Drawings are based on survey data however any discrepancies. should be notified to Purcell in writing.

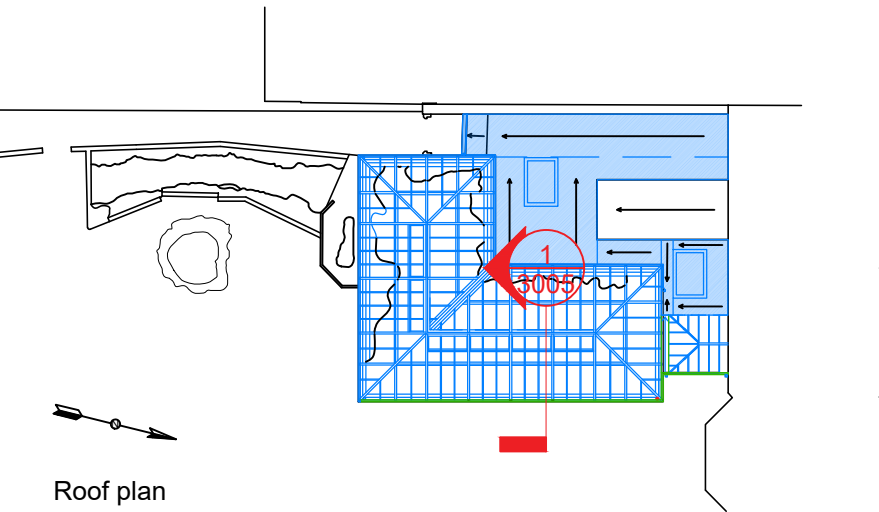
Due to the scales used any measurements from this drawing should include an appropriate level of tolerance. Where appropriate site dimensions should be taken to verify accuracy of measurement.

All dimensions are in millimetres unless noted otherwise.

Purcell shall be notified in writing of any discrepancies.

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Key Plan
not to scale



- Proposed new elements / replacements
Refer to drawings 3001 & 3002 for joinery works.
- Proposed repairs & reinstatement

0 400mm 800mm 1.2m 1.6m 2m
Scale 1:20

C01	19.02.2026	AW	WH	For LBC Condition Discharge
REV	DATE	BY	CHK	DESCRIPTION

CLIENT
University of Reading

PROJECT
The Fernery at the Acacias

JOB NUMBER
242925

PURCELL

TITLE
Metalwork Repairs 1

SIZE SCALE
A1L As Indicated

REV SUITABILITY/REASON FOR ISSUE
C01 A3 - For LBC Condition Discharge

DRAWING NUMBER
242925-PUR-01-XX-DR-A-3005

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