Marlsbro House, Manchester: Timber condition survey

Site note 1 for 21-29 October 2025, job no. 213-34

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1 INTRODUCTION

1.1 AUTHORITY AND REFERENCES

Hutton + Rostron (A SOCOTEC COMPANY) carried out site visits to Marlsbro House, Manchester between the 21-29 October in accordance with the Order Form received from Barney Cook on behalf of Aclo Assets Ltd. Drawings provided by ArchitectureM, reference 519 were used for the identification of structures. For purpose of orientation in this report, the elevation facing onto Newton Street was taken as facing north-west

1.2 AIM

The aim of this survey was to investigate the constructional nature and timber condition of the roof structure and floor structures

2 STAFF ON SITE AND CONTACTS

2.1 H+R STAFF ON SITE

Chris Whitfield | Associate Building Pathologist
Ethan Silvey | Building Pathologist Intern

2.2 PERSONNEL CONTACTED

James Bruce | Director | Civic Engineers

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3 OBSERVATIONS

3.1 ATTIC/FOURTH FLOOR STRUCTURE

See Figures 1-22 in the Schedule of Photographs at Attachment A. Photograph locations are identified on the Plans at Attachment B

3.1.1 Description

Constructional information can be found on the Plans (Floor construction section A-C) at Attachment B

The Attic floor comprised of 15 no. softwood truss tie beams (referenced Beam 1-15) that spanned front to back (north-west to south-east). The beams were supported at midspan from non-original steel posts. Non-original softwood struts and props had also been installed beneath the north-west section of Beam 14 and 15

The beams supported an attic floor comprising softwood joists and tongue & groove (t&g) floorboards but there were three transitions in floor construction as shown on the section drawings, these were:

- Section A: South-west wall to Beam 8
- Section B: Beam 8 to Beam 12
- Section C: Beam 12 to North-east wall

The joists were non-original, and these had been added to increase the loading potential at Attic floor level. There were no joists to the front or back of the building as these areas were beneath the Attic crawl space. T&G ceiling boards were nailed to the underside of the joists between Beam 12 and the north-east wall. The exposed underside of all timbers were decorated with a white limewash

3.1.2 Timber condition

The lengths of decay and deep moisture contents of timbers can be found on the Plans at Attachment B

1 Methodology: Floor structures were visually inspected from below and at-risk timber elements were tested by 6mm micro-bore decay detection drilling and deep moisture probing using a Protimeter. Decayed timbers were marked-up on site with red aerosol paint and lengths of decay were measured to the nearest 50mm

2 Limitations: The floor to the south-east of Beam 6 could not be inspected as it was within an enclosed asbestos containment area. The roof structure was not assessed due to known asbestos contamination at Attic/4th Floor level

3 Beams: There was a total of 11 no. decayed bearing ends with decay ranging from the bearing end (i.e. decayed within the wall) up to ~1m from the wall at Beam 2. Decay at the north-west wall was caused by dry rot fungus *(Serpula lacrymans)* and decay at the south-east wall was caused by wet rot fungi (multiple species) and common furniture beetle *(Anobium punctatum)*. The deep moisture contents of decayed beams were generally elevated at between 12-30 per cent w/w. These areas were subject to active water penetration and timbers in these areas were vulnerable to progressive decay. However, the deep moisture content in the decayed bearing ends to Beams 5, 12 and 13 were below 12 per cent w/w which was too low for decay to progress. These areas may have been subject to historical or intermittent water penetration. Additional beams were damp at their bearing ends and vulnerable to decay

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4 Joists: There were a small number of defective joists and these are identified on the Plans. Defective joists were either partially decayed, fractured/split or deformed (e.g. twisted or warped). There were also a few isolated areas where the joists had an ineffective bearing on the timber plates at the tie beams

5 Floorboards: There was partial decay in most of the perimeter floorboards to the front and back of the building where boards were in direct contact with the masonry. Many of these boards were also loose and inadequately supported. The most significant area of decay to the floorboards was at the south-east bearing end of Beam 2 where decay extended for approximately 2m^2. In addition to the decay, there was notable bowing/deflection in the floorboards from Beam 8 to Beam 12 where joists were absent

6 Plates within brick piers: A timber plate dimensionally equal to a brick was present within each masonry pier. These are the remnants of timber plates that supported formwork during original construction of the brick arches spanning the window openings. Following curing the lengths of plate between the window openings were sawn away and the remnants remained embedded in the piers. The plates were damp and partially decayed at locations corresponding with damp and decay in the beams, creating a void within the pier

3.2 THIRD-GROUND FLOOR STRUCTURES

See Figures 23-80 in the Schedule of Photographs at Attachment A. Photograph locations are identified on the Plans at Attachment B

3.2.1 Description

Constructional information can be found on the Plans (Floor construction section D) at Attachment B

The floor structures comprised softwood beams that spanned front to back. There was a total of 15 no. timber beams to the Third and Second floor (referenced Beam 1-15) but following internal alterations there were only 13 no. timber beams to the First floor and 14 no. to the Ground floor. The beams were generally supported directly in the masonry, but the Ground floor beams were supported on timber pads. The beams were supported at midspan by original cast-iron columns

The beams supported grooved softwood millboards with metal tongues. The millboards were covered with a ~50mm screed to most areas. The exposed underside of the beams and millboards had been decorated with limewash, and paint and metal sheets had been installed beneath the millboards to the underside of the First floor

The following structural alterations and repairs had previously been undertaken to the floors and timber beams:

<u>Third floor</u>

- Beam 8, 9, 13: Steels had been installed alongside the timber beams. The purpose of the repairs was unclear but may be in response to concealed strength reducing characteristics (e.g. fissures, steep slope of grain)

- Beam 10: Structural steel repair in response to timber decay

<u>First floor</u>

- Beam 1 and 2: The original timbers had been replaced with steels and the millboards have been replaced with a jack arch ‘fireproof’ floor over the south-west entrance hall

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- Beam 8: A short ~1.5 steel plate alongside the centre of the beam corresponded with an area of fire damage

Ground floor

- Beam 1: Timber beam and millboards have been removed and replaced with a concrete floor at the south-west entrance hall

- Beam 7 and 9: Steels have been installed alongside the beams and the original sunken internal entrance has been levelled with joists and floorboards

3.2.2 Timber condition

The lengths of decay and deep moisture contents of timbers can be found on the Plans at Attachment B

1 Limitations: The following areas of floor could not be fully assessed:

- Second floor (Third floor soffit): The south-east of Beam 2 as Asbestos stickers were present at the beam bearing. The south-east of Beam 5 and 6 as timbers were within an enclosed asbestos containment area

- First floor (Second floor soffit): The south-east of Beam 8 as Asbestos stickers were present at the beam bearing

- Ground floor (First floor soffit): North-west bearing of Beam 14 due to presence of a ceiling and the majority of the millboards as they were concealed by metal sheets

- Basement (Ground floor soffit): North-west bearing of Beam 14 due to concealment behind a hard cementitious plaster

2 Third to First floor beams: There were a total of 6 no. decayed bearing ends with decay ranging from the bearing end up to ~900mm at Beam 10 to the Third floor soffit. Decay at the north-west wall was caused by dry rot fungus and decay at the south-east wall was caused by wet rot fungi and common furniture beetle. The deep moisture contents of decayed beams were generally elevated at between 12-25 per cent w/w. Many additional beams were damp at their bearing ends and vulnerable to decay. In addition to the decay, there was some deflection/bowing noted to the Second floor beams and fire damage. Fire damage and mechanical removal of surface charring had reduced the cross-sectional area of Second floor Beam 3 by approximately 17.85% for ~4.55m. Surface charring to First floor Beam 8 had reduced cross-sectional area by 10.51% for ~1m but charring to First floor Beam 9 was minor and damage was superficial

3 Ground floor beams: The majority of the beams were damp or decayed where embedded in the masonry and decay was also present in the timber pads. Decay was primarily caused by wet rot fungi and wood-boring weevil which had primarily been caused by the addition of a cementitious plaster which had impeded normal seasonal evaporation of residual moisture through the walls. The entrapped moisture had increased the moisture content of the embedded timbers, making them highly susceptible to insect infestation and decay. The deep moisture contents of the beams were generally between 12-30 per cent w/w

4 Millboards: There was partial decay in a relatively small number of millboards to the front and back of the building where boards were in direct contact with the masonry. Additional localised areas of defective millboards were identified with issues primarily resulting from historical penetrations and alterations. There was

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also some superficial surface charring to the underside of the millboards where fire damage was noted to the floor beams

5 Plates within brick piers: The remnant formwork plates were damp and partially decayed at locations corresponding with damp and decay in the floor beams

3.3 ROOF STRUCTURE

Information to follow once Attic/Fourth floor is safe to access

3.4 TIMBER SPECIES IDENTIFICATION

Results are identified below and sample locations can be found on the Plans at Attachment B

3.4.1 Methodology

Small specimen samples were taken from representative timber members for timber species identification. The samples were examined visually with a x10 lens to determine their gross characteristics. Thin sections were cut from each sample and examined microscopically. The anatomical features of each sample were compared with published information and, where applicable, with reference timber sample

Sample ref	Timber member	Common name	Latin name
1	Truss tie beam	Scots pine	*Pinus sylvestris*
2	Attic floorboard	Spruce	*Picea sp.*
3	Attic joist	Spruce	*Picea sp.*
4	Floor beam	Scots pine	*Pinus sylvestris*
5	Millboard	Scots pine	*Pinus sylvestris*
6	Samples to be taken from roof structure once the Attic/Fourth floor is safe to access		
7			
8			

3.4.2 Potentially achievable strength classes

Timber species information is available in BS EN 1912 2012 'Structural Timber – Strength Classes – Assignment of visual grades and species. The standard provides the achievable Strength Class for the UK's most common commercially available softwood timber species based on source/ timber origin and following Visual Strength Grading to either Special Structural (SS) or General Structural (GS). Identifying whether specific members are likely SS, GS or Reject requires on-site visual inspection following the standards set out in BS 4978:2007 'Visual Strength Grading of Softwood'

Botanical name	BS EN 1912 identification number	Softwood species grade	
		SS	GS
Picea abies	22	C24	C16
Pinus sylvestris	47	C24	C16

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4 RECOMMENDATIONS

4.1 PREPARATORY WORKS

1 Water penetration: Prior to timber repairs, it is essential that water penetration is effectively managed. Any areas subject to further water penetration should be reassessed immediately prior to repairs, as decay is likely to extend. Timbers remained at risk of progressive decay in areas of residual moisture

2 Temporary works: Areas of decayed floor should be assessed by the Structural Engineer and any additional temporary propping installed, as required. Access onto decayed areas of floorboard and millboards should be restricted until areas of floor have been made safe

4.2 FLOOR STRUCTURES

No preservation or chemical remedial treatments are required

1 Decayed beams: Repairs should be formally designed by the Structural Engineer. Decayed beams should be cut back clear of the masonry to the length identified on the Plans. Any decayed underlying timber pads should be replaced with masonry. Beams should be repaired as necessary with new timber of sufficient strength class (e.g. C24 Scots pine/European redwood) and/or steel, as specified by the Structural Engineer. All new timbers should be physically isolated from direct contact with the masonry using damp-proof materials between bearing surfaces and with ventilated air gaps at the sides. The Engineers repair details can be reviewed by H+R, if required

2 Damp beams: The brickwork either side of damp beams should be temporarily removed for the duration of the project to improve ventilation and allow drying to occur. H+R can undertake periodic drying monitoring throughout the project and confirm when sufficient drying has taken place. Brickwork can then be reinstated

3 Decayed/defective millboards: Repair will require the localised removal of the screeds. The decayed and defective millboards should be carefully removed and replaced with new timber of sufficient strength class (e.g. C24 Scots pine). The existing metal tongues should be salvaged from decayed millboards and reinstated within the grooves of the new millboards

4 Decayed/defective Attic joists and floorboards: The structural adequacy of the Attic floor should be assessed by the Structural Engineer to determine its suitability as part of the planned redevelopment. Decayed and defective joists should be repaired, partnered or replaced, as specified by the Structural Engineer. New joists should be of sufficient strength class (e.g. C24 Norway spruce/European whitewood). Decayed/defective floorboards should also be replaced where necessary

4.3 ROOF STRUCTURE

Information to follow once Attic/Fourth floor is safe to access

4.4 FURTHER INVESTIGATIONS

1 Inaccessible areas: H+R can return to investigate the timber condition of inaccessible timber structures following enabling works and maximum exposure

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2 Previous structural repairs: The Structural Engineer should review the adequacy of all previous structural steel repairs and interventions to the roof and floor structures

3 Visual strength grading: The Structural Engineer should review the timber species information and confirm whether visual strength grading of the tie beams and floor beams to BS 4978 is required. Subject to Listed Building Consent, abrasive cleaning of the timbers should be undertaken in advance of these investigations to remove the existing paint layers and allow the H+R grader to assess the natural characteristics of the timber beams

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Attachment A



Fig 1:

Third floor

Third floor; showing the underside of the Attic/Fourth floor. Floorboards spanned over the tie beams and additional support was provided by later joists



Fig 2:

Underside of Fourth floor; showing example of mechanical damage to two floor joists

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Fig 3:

Underside of Fourth floor; showing example of localised decay in the bearing end of a joist and in the overlying floorboards



Fig 4:

Underside of Fourth floor; showing example of decay in the bearing of an upper joist and centre of an underlying joist

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Fig 5

Underside of Fourth floor; showing example of a twisted/rotated joist



Fig 6

Underside of Fourth floor; showing structurally significant decay to the north-west bearing end of tie beam 7, 8 and 9. Decay was caused by dry rot *(Serpula lacrymans)*

Also note the bowing/deflection in the floorboards to the perimeter of the floor where joists had been omitted

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Fig 7

Underside of Fourth floor; showing a close-up of the structurally significant decay to Beam 9. The decay extended to ~550mm from the wall



Fig 8

Underside of Fourth floor; showing a close-up of the structurally significant decay to Beam 10. The decay extended to ~1m from the wall

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Fig 9

Underside of Fourth floor; showing ceiling boards from Beam 12 to the north-east wall. The boards impeded detailed assessment of the joists and floorboards



Fig 10

Underside of Fourth floor; showing timber braces installed alongside Beam 14 and 15

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Fig 11

Underside of Fourth floor; showing ceiling boards between the north-east wall and Beam 13. The boards impeded detailed assessment of the joists and floorboards



Fig 12

Underside of Fourth floor; showing bowing/deflection in the floorboards to the perimeter of the floor where joists had been omitted

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Fig 13

Underside of Fourth floor; showing bearing end of Beam 11 that was subject to active water penetration. The beam was damp and at risk of decay but no significant decay was detected



Fig 14

Underside of Fourth floor; showing structurally significant decay to the bearing end of Beam 10. The beam was decayed by wet rot fungi

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Fig 15

South-east wall; showing remnants of the timber plate that supported the brick arch formwork during original construction



Fig 16

South-east wall; showing decayed plate revealing a void beneath Beam 10

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Fig 17

South-east wall; showing a view through the void that extended the full width of the brick pier



Fig 18

Underside of Fourth floor; showing area where joists between Beam 9 and Beam 11 may have been removed

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Fig 19

Underside of Fourth floor; showing a twisted and a mechanically damaged joist



Fig 20

Underside of Fourth floor; showing missing section of plate at the bearing end of a joist at Beam 7

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Fig 21

Third floor; showing asbestos tenting which prevented access around the south-east bearing end of Beam 6



Fig 22

Underside of Fourth floor; showing area subject to active water around Beam 2. The beam was decayed to ~1m from the wall and approximately 2m^2 of floorboards were also decayed

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Fig 23

Second floor

Second floor; showing the underside of the Third floor. Millboards spanned over floor beams



Fig 24

Underside of Third floor; showing location of former stairwell that had been floored-over with joists

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Fig 25

Underside of Third floor; showing area subject to active water penetration between Beam 7 and Beam 10

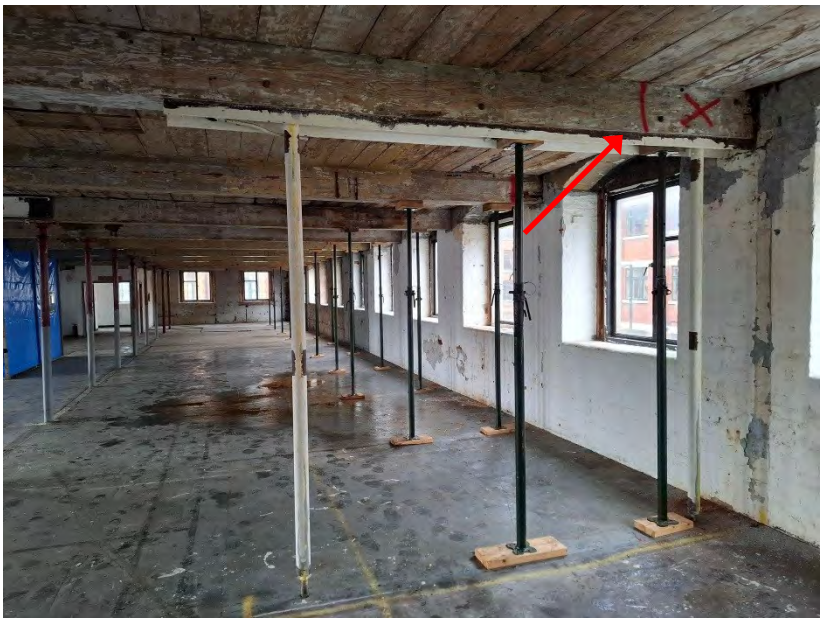


Fig 26

Underside of Third floor; showing repair to the decayed bearing end of Beam 10. The beam was decayed to ~900mm from the wall

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Fig 27

Underside of Third floor; showing example of penetrations through the millboards and alteration to the floor at the north-east wall



Fig 28

Underside of Third floor; showing metal sheets applied to the underside of the millboards between Beam 14 and the north-east wall

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Fig 29

Underside of Third floor; showing steel support to the south-east bearing of Beam 13. No significant decay was detected and the intervention may be in response to concealed strength reducing characteristics (e.g. fissures, steep slope of grain)



Fig 30

Underside of Third floor; showing a partially visible fissure to the north-east face of the beam

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Fig 31

Underside of Third floor; showing area subject to water penetration between Beam 8 and Beam 12



Fig 32

Underside of Third floor; showing steels alongside Beam 8 and Beam 9. No significant decay was detected and the intervention may be in response to concealed strength reducing characteristics (e.g. fissures, steep slope of grain)

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Fig 33

Underside of Third floor; showing area of damaged millboards over Beam 8. The metal tongue between the millboards was partially visible



Fig 34

Underside of Third floor; showing a close-up of the damaged millboards and exposed metal tongue

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Fig 35

Second floor; showing asbestos tenting which prevented access around the south-east bearing end of Beam 5 and Beam 6



Fig 36

Underside of Third floor; showing Beam 5 which was decayed to at least 500mm

Decay detection drilling identified voiding to the north-east face of the beam but it was unclear if this was a notch that had been removed to support the staircase

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Fig 37

Underside of Third floor; showing an example of a damaged millboard at the perimeter of the floor



Fig 38

Underside of Third floor; showing asbestos sticker and encapsulant at the bearing end of Beam 2. The beam was not tested but was highly vulnerable to damp and decay

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Fig 39

First floor

First floor; showing the underside of the Second floor. Millboards spanned over floor beams



Fig 40

Underside of Second floor; showing alteration to the centre of the floor between Beam 7 and Beam 8

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Fig 41

Underside of Second floor; showing decay at the bearing end of Beam 10 caused by dry rot fungus

Note: the fruiting bodies at the window reveal

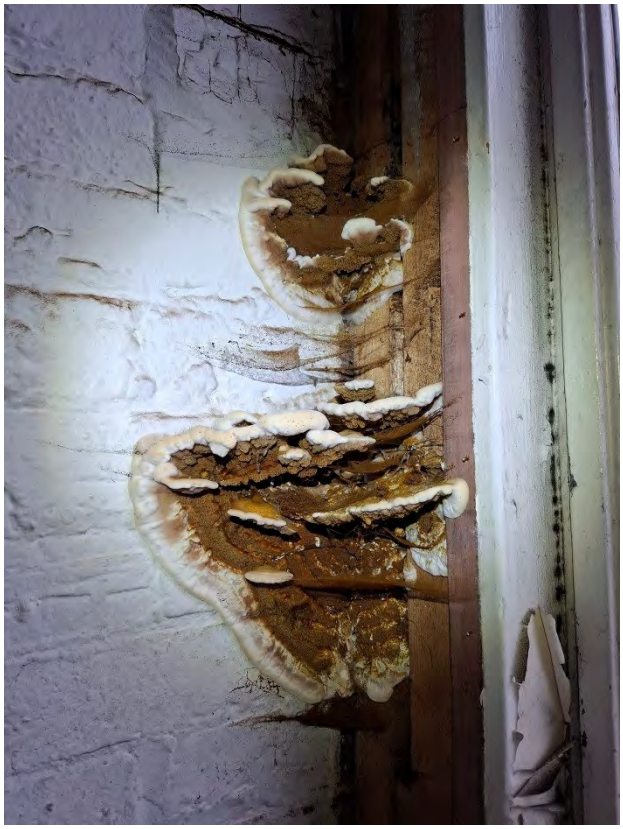


Fig 42

First floor; showing a close-up of the dry rot fruiting bodies

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Fig 43

First floor; showing dry rot spores on the window sill



Fig 44

Underside of Second floor; showing Beam 9 and Beam 10 that were damp at their bearing ends and at risk of decay

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Fig 45

Underside of Second floor; showing asbestos sticker and encapsulant at the bearing end of Beam 8

The joist and millboards were decayed above this area and the beam was highly likely to be decayed



Fig 46

First floor; showing asbestos tenting which prevented access around the south-east bearing end of Beam 8

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Fig 47

Underside of Second floor; showing concrete floor between Beam 6 and Beam 7



Fig 48

Underside of Second floor; showing example of defective millboards

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Fig 49

Underside of Second floor; showing Beam 3 that had suffered from fire damage. The surface charring had been mechanically removed reducing the cross-section by 17.85% for ~4.55m (see Plans at Appendix B)



Fig 50

Underside of Second floor; showing charring to the underside of the millboards between Beam 2 and 3

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Fig 51

Underside of Second floor; showing a close-up of the surface charring. The charring was superficial and limited to the lower ~5mm of the millboards



Fig 52

Underside of Second floor; showing bowing to the south-east section of the floor beams between the cast-iron column and rear wall

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Fig 53

Ground floor

Ground floor; showing the underside of the First floor. Millboards spanned over floor beams



Fig 54

Underside of First floor; showing a view through the suspended ceiling showing a steel beam and brick arch ‘fireproof’ floor between the south-west wall and Beam 2

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Fig 55

Underside of First floor; showing bearing end of timber beams in the north-west wall. No significant damp or decay was detected



Fig 56

Underside of First floor; showing Beam 8 that had suffered from fire damage. The charring had reduced the cross-section by 10.51% for ~1m (see Plans). Steel reinforcement had been taken at this location

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Fig 57

Underside of First floor; showing Beam 9 that had suffered from superficial fire damage for ~3.5m



Fig 58

Underside of First floor; showing painted metal sheets to the underside of the millboards. The sheets prevented detailed inspection

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Fig 59

Underside of First floor; showing ceiling that prevented testing of the north-west bearing end of Beam 14. There was no evidence of damp or decay in this area



Fig 60

Underside of First floor; showing area subject to water penetration between Beam 8 and Beam 10

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Fig 61

Underside of First floor; showing the south-east bearing of Beam 8 that was structurally decayed to ~800mm from the wall. Decay was caused by wet rot fungi



Fig 62

Ground floor; showing south-east extension that was subject to water penetration. No structural timbers were identified in this room

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Fig 63

Ground floor, North room; showing ceiling finishes to the underside of the First floor. Internal inspection was limited at this location



Fig 64

Ground floor, North room; showing cracking through the brickwork beneath the bearing end of the timber beam that spanned the north-west window openings

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Fig 65

Ground floor, North room; showing floor Beam 15 where it was supported on the lower timber beam



Fig 66

Ground floor, North room; showing floor Beam 15 where it was supported on the lower timber beam. No decay was detected where accessible

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Fig 67

Basement

Basement; showing the underside of the Ground floor. Millboards spanned over floor beams



Fig 68

Underside of Ground floor; showing short sections of beam that were separated by non-original concrete floors. No significant damp or decay was detected in these timbers

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Fig 69

Underside of Ground floor; showing concrete floor at the west corner of the building



Fig 70

Underside of Ground floor; showing decay in the timber pad beneath Beam 2. No significant decay was detected in the beam but it was damp and subject to wood-boring weevil infestation

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Fig 71

Underside of Ground floor; showing underside of Beam 3 that couldn't be accessed due to a ceiling



Fig 72

Underside of Ground floor; showing alteration to floor structure where the original sunken internal entrance floor had been raised. No significant damp or decay was detected in these timbers

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Fig 73

Underside of Ground floor; showing Beam 11-13 that were decayed at their bearing in the north-west wall



Fig 74

Underside of Ground floor; showing Beam 14 that was concealed by a hard cementitious plaster. The timber could not be fully tested

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Fig 75

Underside of Ground floor; showing steel and concrete floor to the east corner of the building



Fig 76

Underside of Ground floor; showing floor beams that were all damp or decayed at their bearing in the south-east wall

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Fig 77

Underside of Ground floor; showing limited propping to the decayed floor beams



Fig 78

Underside of Ground floor; showing an example of the decay in the beam where embedded in the wall. Decay was caused by wet rot fungi and wood -boring weevil

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Fig 79

Underside of Ground floor; showing poorly supported joist between Beam 9 and Beam 10



Fig 80

Underside of Ground floor; showing poorly supported joists between Beam 9 and Beam 10

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Attachment B

NEWTON STREET

HILTON STREET

FARADAY STREET

Beam 3
Damp at bearing
15% DMC

Beam 7
Decayed to 100mm
20% DMC

Beam 9
Decayed to 550mm
14% DMC

Beam 13
Decayed to 900mm
9% DMC

Beam 8
Decayed to 500mm
18% DMC

Beam 10
Decayed to 1m
20% DMC

Beam 12
Decayed to 250mm
10% DMC

Joist decayed for 500mm

Joist decayed for 100mm

Previous structural intervention to Beam 14 and 15

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

RWP

RWP

F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 F13 F14 F15 F16-17 F18 F19 F20 F21 F22

2 Floorboard

1 Beam

Ceiling

Timber brace

A A B B C C

Timber post

Lift

Timber post

Timber post

3 Joist

Lift

Concrete

Not accessed

RWP

RWP

RWP

Flat roof

Flat roof

Beam 2
Decayed at 1m
30% DMC

Beam 5
Decayed to 350mm
10% DMC

Beam 8
Damp at bearing
24% DMC

Beam 9
Decayed at bearing
20% DMC

Beam 10
Decayed at bearing
30% DMC

Beam 11
Damp at bearing
16% DMC

Beam 13
Decayed to 300mm
11% DMC

Key:

- RWP — Rainwater downpipe
- A — Floor construction type
- Area subject to water penetration
- Masonry subject to dry rot infection
- Structurally decayed timber
- Damp timber/at risk of decay
- Fractured/deformed/defective joist
- Decayed/defective floorboards
- %DMC — Deep moisture content of timber
- 1 — Timber species sample
- Possible removed joists
- Bowing of floorboards
- F1-22 — Photograph location

Marlsbro House, Manchester - Third floor (showing Fourth floor soffit)

TIMBER CONDITION SURVEY

21-29 October 2025

Hutton + Rostron
A SOCOTEC COMPANY

The Manor House, 2 Market Place, Mottram in Longdendale, Greater Manchester SK14 6JD
Tel: 01457 600 790 Email: manchester@handr.co.uk Web: www.handr.co.uk

213-34 Site note 1 -NOT TO SCALE- *All dimensions are approximate*

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NEWTON STREET

HILTON STREET

FARADAY STREET

Beam 8
Damp at bearing
17% DMC

Beam 10
Decayed to 900mm
17% DMC

Beam 3
Damp at bearing
13% DMC

Beam 5
Damp at bearing
15% DMC

Beam 7
Damp at bearing
15% DMC

Beam 9
Decayed at bearing
12% DMC

Former staircase location

Structural repair due to timber decay

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

RWP RWP

F23 F24 F25 F26 F27 F28 F29 F30 F31 F32 F33-34 F35 F36 F37 F38

D D

Lift

Lift

Concrete

Not accessed

Ceiling

Ceiling

4 Beam

5 Millboard

RWP RWP RWP RWP

Flat roof

Flat roof

Beam 2
Asbestos - beam not tested at bearing end

Beam 5
Decayed to at least 500mm
8% DMC

Beam 8
Damp at bearing
18% DMC

Beam 9
Damp at bearing
14% DMC

Beam 10
Decayed at bearing
25% DMC

Purpose of structural steel reinforcement is unclear

Hutton + Rostron
A SOCOTEC COMPANY

Marlsbro House, Manchester - Second floor (showing Third floor soffit)

TIMBER CONDITION SURVEY

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Key:

- RWP — Rainwater downpipe
- (D) — Floor construction type
- Area subject to water penetration
- Masonry subject to dry rot infection
- Structurally decayed timber
- Damp timber/at risk of decay
- Decayed/defective millboards
- %DMC — Deep moisture content of timber
- (1) — Timber species sample
- F23-38 — Photograph location
- Existing steel repair/intervention

NEWTON STREET

HILTON STREET

FARADAY STREET

Beam 10
Decayed to 250mm
20% DMC

Former staircase location

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

RWP RWP

F42-43

F41

F40

F39

Lift

superficial

F49

F52

F50-51

F48

F47

F46

F45

F44

Lift

Concrete

superficial

Concrete floor

Not accessed

RWP RWP RWP RWP

Flat roof

Flat roof

225
205
~20mm loss
305 275
~30mm loss

Beam 3
Surface charring to beam has been mechanically removed for ~4.55m as illustrated
=17.85% cross-section reduction

Beam 8
Asbestos - beam not tested at bearing end

Beam 10
Damp at bearing
12% DMC

Beam 9
Damp at bearing
12% DMC

Key:

- RWP — Rainwater downpipe
- Floor construction type
- Area subject to water penetration
- Masonry subject to dry rot infection
- Structurally decayed timber
- Damp timber/at risk of decay
- Fractured/deformed/defective joist
- Decayed/defective millboards
- Area of fire damage/charring
- %DMC — Deep moisture content of timber
- Slight bowing to beams
- F39-52 — Photograph location

Hutton + Rostron
A SOCOTEC COMPANY

Marlsbro House, Manchester - First floor (showing Second floor soffit)

TIMBER CONDITION SURVEY

21-29 October 2025

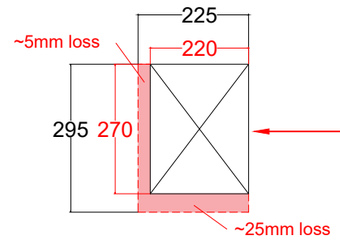
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NEWTON STREET

HILTON STREET

FARADAY STREET



Beam 8
Surface charring for ~1m
=10.51% cross-section reduction

Beam 14
Beam concealed by ceiling - not tested

Cracking through 4 no. courses of brick directly beneath bearing end of lintel

Timber floor replaced with 'fireproof' jack arch floor

Structural repair to area of fire damage

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

RWP RWP RWP RWP RWP

Suspended Ceiling
Suspended Ceiling
Suspended Ceiling
Ceiling
Timber beam

B.A. B.A.

F53 F54 F55 F56 F57 F58 F59 F60 F61 F62 F63 F64 F65 F66

superficial

Lift
Lift

Concrete
Concrete

Flat roof

Beam 8
Decayed to 800mm
19% DMC

Note: Underside of millboards concealed by metal sheets. Extent of decayed/defective millboards could not be determined

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Marlsbro House, Manchester - Ground floor (showing First floor soffit)

TIMBER CONDITION SURVEY

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Key:

RWP	Rainwater downpipe		Area of fire damage/charring
D	Floor construction type	%DMC	Deep moisture content of timber
	Area subject to water penetration	F53-66	Photograph location
	Structurally decayed timber		Existing steel repair/intervention
	Damp timber/at risk of decay	B.A.	Brick arch ceiling
	Fractured/deformed/defective joist	C	Lintel of concrete construction
	Steel beam	e	Structural engineer to comment

NEWTON STREET

HILTON STREET

FARADAY STREET

Beam 3
Inaccessible due to ceiling

Beam 5
Damp at bearing
20% DMC

Beam 4
Damp at bearing
22% DMC

Beam 6
Decayed at bearing
16% DMC

Beam 11
Decayed at bearing
30%+ DMC

Beam 13
Decayed at bearing
16% DMC

Beam 12
Decayed at bearing
14% DMC

Beam 14
Beam concealed - not tested.
Timber plate decayed

Timber floor replaced with concrete floor

Timber pad decayed
30% DMC

Alteration to floor structure where original sunken internal entrance has been raised

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

RWP

Concrete

Ceiling

F67 F68 F69 F70 F71 F72 F73 F74 F75 F76 F77 F78 F79 F80

Lift

Concrete

RWP RWP RWP RWP

Timber pad decayed

Beam 2
Decayed at bearing
12% DMC

Beam 4
Decayed at bearing
11% DMC

Beam 6
Decayed at bearing
14% DMC

Beam 8
Decayed to 400mm
30%+ DMC

Beam 12
Decayed at bearing
10% DMC

Beam 14
Decayed at bearing
30%+ DMC

Beam 15
Decayed at bearing
11% DMC

Beam 3
Decayed to 150mm
12% DMC

Beam 5
Decayed to 150mm
13% DMC

Beam 7
Decayed at bearing
9% DMC

Beam 9
Decayed at bearing
23% DMC

Stairs collapsed and unsafe

Note: All walls subject to water penetration

Key:

- RWP — Rainwater downpipe
- D — Floor construction type
- Area subject to water penetration
- Structurally decayed timber
- Damp timber/at risk of decay
- Steel beam
- Fractured/deformed/defective joist
- Decayed/defective millboards
- %DMC — Deep moisture content of timber
- Existing steel repair/intervention
- F67-80 — Photograph location

Hutton + Rostron
A SOCOTEC COMPANY

Marlsbro House, Manchester - Basement (showing Ground floor soffit)

TIMBER CONDITION SURVEY

21-29 October 2025

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