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9518 | Manchester Art Gallery

Roof Lantern Condition Report

November 2022

Buttress



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Roof Lantern Condition Report

Prepared for:

Manchester City Council

Rev	Date	Status	Name	Description
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Name of Property	Manchester Art Gallery
Listing	Grade I
Inspection Date	3 rd November 2022
Date of Previous Inspection	N/A
Weather	Overcast, windy, dry following a period of rain

Executive Summary	Manchester Art Gallery is Manchester City Council's Primary Art Gallery in the centre of the city. Inspection of the central roof lantern to the Art Gallery Entrance has concluded that the roof lantern requires wholesale replacement. To ensure that the replacement requires minimum maintenance, an aluminium framed double glazed lantern is proposed as replacement. This will complement the glazed roof lights to the surrounding building which were replaced as part of the 2002 refurbishment. These works will form part of the wider urgent works currently being developed.
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Contents

1	Introduction	5
1.1	<i>Scope of the Report</i>	<i>5</i>
1.2	<i>Description.....</i>	<i>6</i>
2	Condition Inspection	8
2.1	<i>External Roof</i>	<i>8</i>
2.2	<i>Internally.....</i>	<i>9</i>
2.3	<i>Roof Access.....</i>	<i>11</i>
3	Addendum	12



1 Introduction

1.1 Scope of the Report

This inspection was undertaken on 3rd November 2022 by Neal Charlton BA (Hons), DipArch, MArch, RIBA, AABC Director of Buttress Architects Ltd. having been instructed by Manchester City Council, via Faithful and Gould. It was a visual inspection only, and no opening up work, or removal of fittings etc. were undertaken. Due to lack of safe access to the roof lantern externally, the lantern was viewed from the top of the central glass atrium. It was the first inspection of this property undertaken by the author.

The recommendations of this report are intended to provide 'employers requirements' for a repair programme which will be delivered by a contractor and include a specialist subcontractor design of a replacement lantern. It must not be used as a specification for conservation or repair, which will, if needing the supervision of the architect, be mentioned later in the report. Builders should not be allowed to work on the building unless the scope of their work has been agreed with the council – as client, and this report should not be given as a specification. It is likely that much of the work recommended will need consents: either Listed Building Consent, or a Building Regulations submission.

Where defects are recorded in this report, before remedial work is undertaken, the cause, which sometimes may not be obvious, needs to be established. This is to ensure that underlying problems are not overlooked.

Throughout this report, geographical references assume that the front of the property faces to the North West, and the rear faces to the South East. As the report is focussed purely on the central entrance, the report simply reports internally and externally. It should also be noted that this is a defects survey – as such any elements that are not listed should be considered in good repair: requiring no action at present.

This is a summary report only, it is not a specification for the execution of the work and must not be used as such. The architect is willing to assist the council in applying for consent for the repair works, as would be required to comply with statutory requirements.

It has not been possible in preparing this report to inspect woodwork or other parts of the structure which are covered, unexposed or inaccessible, and it is therefore not possible to report that any such part of the property is free from defect. Analysis of defects in reinforced concrete, high alumina cement, asbestos or other similar products etc. has not been undertaken. It is therefore not possible to state that the property is free from hazardous materials, or that the water is or is not contaminated in any way. If there is thought to be a problem with such materials it may be necessary to commission further reports, perhaps from other consultants.

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1.2 Description

Originally constructed as the Royal Manchester Institution, the main entrance building for the Manchester Art Gallery was its Mosley Street building, designed by Charles Barry in the Greek Revival style, opened in 1835, housing concerts, lectures, a growing art collection and the newly founded School of Design, later to become the Manchester School of Art. Visitors to the Royal Manchester Institute were welcome, on payment of a 6d entrance fee. By 1882, however, the Institution's finances were in decline and this essentially private enterprise was given over to the city, on condition that the Manchester Corporation spend a minimum of £2000 per year for the next 20 years purchasing new work for the collection.

Manchester City Art Gallery duly opened in January 1883, offering free entry for all.

Today Manchester Art Gallery collection occupies three connected buildings, The Royal Manchester Institution, and the Athenaeum were designed by Sir Charles Barry. Both Barry's buildings are listed Grade I and Grade II* respectively. The building that links them was designed by Hopkins Architects following an architectural design competition managed by RIBA Competitions. It opened in 2002 following a major renovation and expansion project undertaken by the art gallery.

This report focuses on the Royal Manchester Institution Building, and the central entrance roof lantern. The property is noted as Grade I Listed by Historic England. The listing description is as follows:

SJ8498SW

698-1/28/241

MANCHESTER MOSLEY STREET (East side) Manchester Art Gallery

(Formerly listed as City Art Gallery) 25/02/52 GV I Royal Manchester Institution, later City Art Gallery. 1824-35, by Sir Charles Barry. Rusticated ashlar (roofs not visible). Rectangular plan parallel to street and set back from it, with projecting central portico. Greek Ionic style.

EXTERIOR: two storeys with the appearance of one, plus a central attic; a symmetrical composition with 3:5:3-

bay main range flanked by slightly-projected pavilions, the whole raised on a plinth, and with a pedimented portico of six giant Ionic columns, three-bay colonnaded side ranges with Ionic columns in antis, plain corner pilasters to the pavilions, a continuous plain entablature, dentilled cornice and plain parapet with moulded coping; plus a rectangular attic behind the portico, flanked by set-back parapets over the side ranges. The portico, approached by full-width steps, contains a large doorway with moulded architrave and cornice on consoles; the rear walls of the colonnaded side ranges have windows with plain reveals; the pavilions each have three sashed windows at ground floor with simple architraves and cornices, and three small rectangular panels above with statuary. The attic (forming a lantern to the entrance hall) has small windows with pilaster jambs, and a frieze and moulded cornice with roundels (etc).

INTERIOR: square entrance hall with stone imperial staircase, balustraded gallery on fluted Doric columns.

HISTORICAL NOTE: Manchester Art Gallery was the site of the first attack on artworks by suffragettes. On 3 April 1913 Lillian Forrester and Evelyn Manesta were discovered smashing the glass of paintings in Room 2. Thirteen pictures by artists such as Millais, Burne-Jones and Rossetti received damage estimated at over £100 in total.

Forrester (who had a previous arrest) and Manesta were both associated with the militant suffrage organisation the Women's Social and Political Union (WSPU), formed in Manchester by Emmeline Pankhurst in 1903. In court they explained that they were acting in protest at a recent prison sentence given to Mrs Pankhurst for her own suffragette militancy. While in prison, Forrester and Manesta were covertly photographed using new surveillance cameras and the pictures were circulated to art galleries across Britain to prevent further attacks. Despite this, other women followed their example and there were a spate of similar suffragette strikes on art galleries and museums the following year.

This list entry was amended in 2018 as part of the centenary commemorations of the 1918 Representation of the People Act.

2 Condition Inspection

2.1 External Roof

Roof: The central entrance foyer roof is a slate pitched pyramidal roof with lead hips. This terminates at a central glazed timber framed lantern with a louvered upstand. The roof is accessed at low level via a fixed ladder to the lower flat roofs and a fixed ladder to the rear lantern elevation. This, however, does not give safe access to the slate roof, or the glazed lantern above.

Condition: The glazed lantern is at the end of its life and requires wholesale replacement. This was identified in the recent Donald Insall Associates condition survey and has been confirmed as part of this inspection. The lantern has, for some time, been supported by an external webbing strap. This has been fitted as a temporary support to avoid lateral spread to the vertical timber louvers. This, and the lantern as a whole, have not been maintained. As a result, the webbing strap shows signs of UV degradation and stress. Failure of this tension strap could cause catastrophic failure and the sequential collapse of the lantern. As a result these works have already been identified as urgent.

Louvers: It is assumed that the louvers to the vertical sides of the lantern are fixed, and remain open at all times. These would have formed part of the original buildings natural ventilation strategy. Replacement should consider the use of aluminium louvers externally, and motorised dampers to allow their operation to be controlled as part of the buildings BMS system. If this is not possible, 'dummy' louvers should be fitted externally and a blank insulated panel detailed internally.



Recommendations: The glazed lantern should be replaced by a new, aluminium framed lantern which matches the proportions of the existing design, but avoids onerous maintenance by being an aluminium frame. The opportunity should be taken to double glaze the lantern as discussed in 2.2 below.

Finish: The glazed roof lights to the galleries that surround the entrance were replaced with aluminium framed roof lights as part of the 2002 refurbishment. The new central lantern should be in a dark grey to match these roof lights. Whilst Polyseter Powder Coating may be considered appropriate, an anodised finish is higher quality, and longer lasting, and suitable for use on a grade I listed building.

Consent: It should be noted that as the recommendation is to replace the lantern with an aluminium frame, which is not a like-for-like replacement, listed building consent would be required.

2.2 Internally

Central Glazed Lantern: The central glazed lantern is formed of a timber framed lantern with a pyramidal pitched form. There are vertical louvered risers to each of the four sides. This sits at the apex of the pitched slate roof. It should be noted that the condition of the roof void to the slate pitched roof was unable to be safely inspected due to the lack of safe access to the fixed ladder access system (see 2.3.1 below).

The entrance foyer interior is richly decorated with a mix of Greek and Egyptian motifs and a 'cast hall' at high level. This reflects the décor of the Royal Manchester Institute from the period when the building was founded, and unlike many parts of the building, avoided significant remodelling when Manchester Art Gallery was extended at the turn of the millennium.

It should be noted that water ingress through the lantern has been noted within this entrance foyer. This area is not only used by the public to access the galleries and facilities beyond, but is a gallery in its own right, with artworks and sculptures on public display. It is essential that the replacement lantern aids improved environmental conditions within the space for the display of artifacts, as well as protecting the decorative finishes of the Grade I listed interior.

Condition: The condition of the lantern is recorded in the external section above, but the high levels of Ultraviolet light were noted as part of the internal inspection. Consideration should be given to the introduction of glazing that filters out high levels of UV light as part of the specification of the roof glazing. Environmental control and security should also be considered as part of the glass specification.

Recommendations: The use of a UV coating should be specified for the glass, which should also be a double glazed 'anti-bandit' unit with toughened glass to the exterior, and laminated glass to the interior pane. This will provide additional safety and security to the building.



2.3 Roof Access

2.3.1 Permanent Fixed ladder Access

Roof Access: The roof is accessed at low level via a fixed ladder to the lower flat roofs and a fixed ladder to the rear lantern elevation. This, however, does not give safe access to the slate roof, or the glazed lantern above.

Condition: The roof access currently does not have a certificate for safe use. The fixed ladder should have an inspection certificate displayed to show its recent inspection and expiry date. It is similar to the 'scaff tag' system used on scaffolding. This is currently missing, and assumed to be out of date.

Recommendation: The fixed ladder should be inspected and certified to allow safe access and maintenance to the roofs. Whilst this is an ongoing maintenance issue, it is imperative that this is done immediately to allow safe roof access for contractors to develop the current body of works to the building.

2.3.2 Temporary Access

Scaffold: The works to replace the lantern will require a safe working platform, and temporary roof to allow the works to be undertaken. This will require a scaffold temporary works design to be developed by the contractor to ensure that safe external access can be afforded to the roof. This must follow the outline scaffolding specification written by buttress to ensure that the fabric of the listed building is protected during the erection of the scaffold.

Crash Deck: In addition, a fall protection platform, or crash deck must be formed directly below the glazed lantern to allow the works to be undertaken. To avoid an independent internal birdcage scaffold, options for a spanning scaffold, suspended at high level will need to be considered by the scaffold designer. Once again, this must follow the Buttress outline scaffold specification, whilst the contractor is responsible for developing the temporary works design.

3 Addendum

A.01 Introduction

This is a summary report only, it is not a specification for the execution of the work and must not be used as such. The architect is willing to assist the client in applying for a consents, as may be required to comply with the regulations.

It has not been possible in preparing this report to inspect woodwork or other parts of the structure which are covered, unexposed, or inaccessible, and it is therefore not possible to report that any such part of the property is free from defect. Analysis of defects in reinforced concrete, high alumina cement, asbestos or other similar products etc., has not been undertaken. It is therefore not possible to state that the property is free from hazardous materials. If there is thought to be a problem with such materials it may be necessary to commission further reports, perhaps from other consultants.

A.02 Gutters, etc.

It is extremely important to guard against blockages in gutters, (especially parapet gutters) rainwater pipes, ground gutters and drains. This should be undertaken as a routine at least twice a year, either by employing someone (local builder, window cleaner etc.) or by using reliable volunteers. If volunteers are used care should be taken to ensure that ladders etc. are in good condition and that someone assists to “foot” the ladders. It is also advisable to check that they are insured in case of accident etc. Whilst being cleaned the gutters etc, should be checked to see if any faults have developed.

A.03 Electrical Installation

Properties should have their electrical installations regularly inspected and tested. The frequency will be dependent upon the use of the property. The inspection and testing should be carried out in accordance with IET Regulations, Guidance Note No. 3 and an electrical installation and conditioning report issued in every case. It should be noted that the 18th Edition of the wiring regulation, July 2018 requires that installations protect against electrical surge.

Only electrical contractors with full scope registration or membership to work on commercial installations with the National Inspection Council for Electrical Installation Contracting (NICEIC), The Electrical Contractors Association (ECA) or The National Association of Professional Inspectors and Testers (NAPIT) should be employed.

Electricians or electrical contractors who are only registered to undertake work on domestic installations under Part P of the Building Regulations are not acceptable to insurers.

If the installation is less than five years old the test need only be carried out every two years. The test should be undertaken by a competent electrical engineer and a resistance and earth continuity test should be obtained on all circuits. The engineer's test report should be kept safe and accessible. This present report is based upon a visual inspection of the main switchboard and of certain sections of the wiring selected at random, without the use of instruments. The switchgear in the property should be labelled to show the date of the most recent inspection and the date for the recommended future inspection.

The Spa building requires the replacement of its emergency lighting systems as part of the replacement of electrical systems, and a modest fire detection system would also be beneficial. Currently it is believed that the fire detection system is limited to the high risk areas, such as the kitchen. A whole building system would both function as a life protection system for use as a community building, and protect the building, providing monitoring when the building is not occupied.

A.04 Heating Installation

A qualified engineer should make a proper examination and test of the heating apparatus, each summer before the heating season begins. The client should consider arranging a Maintenance Contract with a heating contractor. Portable heaters should only be used where there is no alternative. They are often the cause of fires. Gas heaters (LPG in cylinders) can cause serious problems of condensation and lead to dry rot. They should never be used. Portable electric radiant heaters are dangerous and also should not be used.

A.05 Annual Inspection

It is strongly recommended that the property owners and tenants should make, or cause to be made, a careful inspection of the fabric at least once a year, and arrange for immediate attention to such minor matters as displaced slates and leaking pipes.

A.06 Accessibility Issues

The client will need to undertake an audit of its buildings to assess the best ways of meeting the requirements of the Equalities Act. This may result management rather than physical changes. The author of this report can assist in the preparation of an audit on the building if required.

However, it should be noted that the building met with legal requirements for use as a community building at the time of its refurbishment, but changes in the Equalities Act, should now challenge the logic of the lack of equitable access to the lower ground floor. As a result, works should be considered to improve the access for all members of the public to the most significant historic spaces in particular.

This could be reasonably done in two very different ways:

- i) Maintain the separation between the two floors and provide level access and a small amount of accessible parking to the east of the building at the lower level.
- ii) Install an internal accommodation stair and platform lift to link the two floor levels together.

The optimum solution will depend on the program of activities when the building is put into community use, but it should be noted that both solutions require significant public investment. These are both likely to cost between £75,000 and £100,000 depending on the detailed design. This cost is in addition to the condition costs reported.

A.07 Asbestos

On the 21st May 2004 legislation came into effect under the Control of Asbestos at Work Regulations 1989. These regulations impose requirements on the protection of people who might be exposed to asbestos at work and other persons who might be affected by such work. It imposes certain duties which will affect the property. The regulations place a duty on persons having control of buildings to make a suitable and sufficient assessment as to whether asbestos is or is liable to be present in the premises. Having established that it may be present then there is an obligation to assess the level of risk and to take appropriate measures to ensure proper maintenance or removal of asbestos. Whilst many historic buildings may have little or no asbestos, it is possible that it is present in parts of the heating installation, fire protection to heating chambers and in insulation. It may also be present in 20th Century buildings when asbestos was used more substantially to form partitions and in the installation of roofs.

Whilst every effort has been taken in preparing this Condition/Defects Report, there can be no guarantee that asbestos is not present if it is not specifically referred to in the report. Often asbestos is painted over or covered in another way which makes it difficult to detect. Since the Quinquennial Inspection is a visual inspection only and no opening up work has been carried out it is possible that asbestos has gone undetected.

Where a landlord is worried that there may be asbestos in the building which may pose a risk to either the tenants or other occasional users to the building and to maintenance personnel then they should commission a survey from a competent firm licensed to carry out an assessment and analysis of asbestos.

Further general information on asbestos in building can be found from the Health and Safety Executive (www.hse.gov.uk). The HSE has published guidance on managing asbestos in premises (HSGT27). Also available is the Code of Practice for the Management of Asbestos in Non-Domestic Premises (L127). All these publications are available from the HMSO.

A.08 Health & Safety at Work Act 1974 and Risk Management

Historic buildings can be dangerous places to inspect or maintain when access is required to high level areas, gutters etc. It is ultimately the responsibility of the client to ensure that all people who enter into a building, particularly upper-level areas, are able to do so in a safe manner and in compliance with relevant regulations. Particularly, some buildings may be classified as Places of Work as far as legislation is concerned and compliance with Section 2 of the Health & Safety at Work Act 1974, Working at Height Regulations 2005 and The Management of Health and Safety at Work Regulations 1999 all need to be attended to. The author of this report will be pleased to advise on how these requirements affect the future care and maintenance of the building.

A.09 Risk Management

The client should also review the condition of the building as far as general access is concerned for the public, paying particular attention to uneven floors, trailing cables, loose paving stones, slippery footpaths etc to alleviate the risks of slips, trips and falls.

A.10 Bats and Other Protected Species

The client should be aware of its responsibilities where protected species are present in a building. No evidence of bats was noted during the inspection.

A.11 Sustainable Buildings

A fabric condition survey is a good opportunity for a building owner to reflect on the sustainability of the building and its use. This may include the scope and use of the building, considering how to increase resilience in the face of predicted changes to the climate, increasing energy efficiency and other environmental issues.

It is assumed that the restoration works undertaken at the time of the refurbishment met the building regulations at the time, it is clear that in areas where the ceiling has collapsed at the upper level, that there is

a reasonable amount of insulation above the ceiling for example. It would be inappropriate to replace the windows with more thermally efficient windows, so the biggest impact and improvement would be to consider reducing the impact that the electrical and heating systems have.

A move to LED light fittings throughout would be a sensible upgrade, considering the building requires re-wiring, and the replacement of a boiler with a more efficient heating system would have a significant impact, whilst requiring further capital investment. The opportunity to move away from a high carbon heat source and opting for an air source heat pump, for example, would help de-carbonise the building - especially if the electricity supply is moved to a green tariff.

It should be noted that whilst roof mounted solar panels can be appropriate on some listed buildings, the orientation of the building with the entrance on the south, would result in significant visual impact which would be unlikely to gain consent.

It should be noted that there is a legal requirement to undertake an EPC for the building to be let, but as a listed building, there is no requirement to improve the buildings environmental performance, especially if this would be harmful to the significance of the building.

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