

14 April 2023

Jack Naven
Planning Department
Manchester City Council
Town Hall
Manchester
M602LA

Dear Jack,

Science and Industry Museum: 1830 Warehouse Application Listed Building Consent

Please find enclosed an application for Listed Building Consent for essential repairs to the roof of the Science & Industry Museum's 1830 Warehouse including works to the valley gutters, Bay 4 roof and truss chords.

The Science and Industry Museum is located to the north west of Manchester City Centre, to the east of the River Irwell, and is within the Castlefield Conservation Area.

The Applicant is the Science and Industry Museum ('the Museum').

1 Context

The 1830 Warehouse is a Grade I Listed Building within the Science and Industry Museum complex. The 1830 Warehouse was erected as a railway warehouse in 1830 as part of the construction of the world's first railway station at Liverpool Road and was the first warehouse to be served by railways, in a similar way that canal warehouses had previously. In 1844 Liverpool Road station closed to passengers but remained in operation as a goods station.

In c.1870, the top floor and rail level were modified to accommodate the installation of hydraulically powered machinery. A hydraulic crane was also installed at rail level in Bay 2, leading to the widening of the wagon door to permit the rotation of the crane jib. The building remained in use as a railway warehouse until the early 1980s.

In the mid-1980s – mid-1990s, a series of considerable repairs and alterations were carried out. In 1985-86, the easternmost bay (Bay 5) of the Warehouse was altered. These alterations consisted of the replacement of the internal timber frame and the construction of a ramp parallel to the eastern elevation, where the entrance lies. The entirety of Bay 5 then became the Electricity Gallery, opening in 1986.

Deloitte LLP is a limited liability partnership registered in England and Wales with registered number OC303675 and its registered office at 1 New Street Square, London, EC4A 3HQ, United Kingdom.

Deloitte LLP is the United Kingdom affiliate of Deloitte NSE LLP, a member firm of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee ("DTTL"). DTTL and each of its member firms are legally separate and independent entities. DTTL and Deloitte NSE LLP do not provide services to clients. Please see www.deloitte.com/about to learn more about our global network of member firms.

In 1992-96, the remaining four bays were carefully restored. This included repairs to the timber frame, followed by the installation of two lift and staircase cores, with skylights installed above. The restoration ethic at this time was to retain as much original historic fabric as possible and to make any new interventions clearly identifiable through the use of modern materials.

Subsequently, deterioration has occurred on Site as a result of significant water ingress. Works have already begun to restore and protect the warehouse, with the first £1.9m phase of work funded by the Department of Culture, Media and Sport (DCMS). In May 2020 permission was granted for a new roof, gutters and rainwater pipes to be installed to help protect the building, manage the water ingress and dry the building out (LBC ref: 124068/LO/2019). These works were completed in Spring 2022 and the Museum is now planning for further internal repairs, including those included within this application.

The below plan identifies where the 1830 Warehouse is located within the Science and Industry Museum estate.

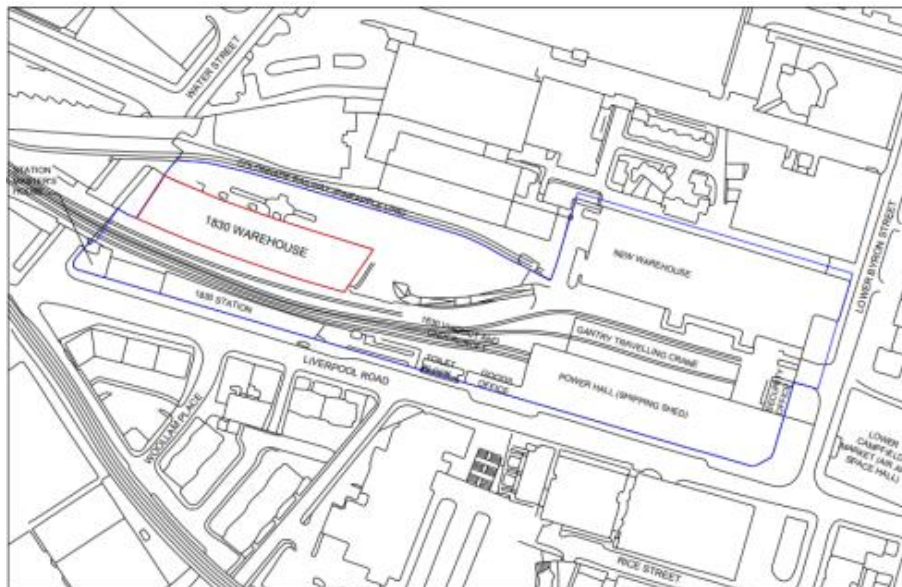


Figure 1: Site Plan off Science Museum Estate (Source Design and Access Statement, Studio Downie)

2 Background

As part of wider site regeneration, the 1830 Warehouse is required to accommodate staff offices while also being used as a temporary event space due to works being undertaken elsewhere on Site. In order to facilitate these uses, essential conservation works are required as the space is currently deemed unsuitable. It is currently intended that the 1830 Warehouse must be ready to host temporary events and staff offices by Autumn 2023 in line with wider regeneration works. Consequently, the repairs outlined within this application are deemed essential to be carried out over Summer 2023 to ensure the safety of both staff and visitors.

3 Significance of the 1830 Warehouse

The 1830 Warehouse holds rich historical value as the world's first railway warehouse and embodies a distinct stage in the evolution of the history of transit. Its architectural form illustrates its historic function.

Not only is it the first railway warehouse, but it is also part of an important group that makes up the most complete early railway station in the country. This station consisted of a viaduct, passenger station and river bridge and only the bridge that originally spanned the road has been replaced. Group historic value is further augmented through the location and relationship to the later Liverpool Road Station warehouses, and the warehouses of the Castlefield waterways. There is high contextual interest between the various buildings of this general period illustrating the transition from one mode of transport to another.

Having been built by a known Manchester firm consisting of George and Robert Stephenson, there is also an associated historical significance embodied in the links to the builders and other historic personages associated with the development of the railways.

These associative links are not expressly legible in the building itself but are reflected and understood within the historic background and disseminated through the Science and Industry Museum's use of the buildings.

For further details please see the accompanying Heritage Statement prepared by HCUK Ltd.

4 Pre-application Engagement

Manchester City Council (MCC) have been engaged throughout the pre-application process. Initial discussions were held on site with MCC Planning and Conservation Officers on 17.01.2023, to give a general overview of the defects to the roof and the necessary repairs.

Feedback from this meeting established that further design work was needed on the approach to the roof of Bay 4, and so a full options appraisal was carried out in advance of the next site visit which was held on 08.03.22. MCC feedback during this meeting stated that the preferred approach (Please see page 21 of the accompanying Design & Access Statement) provided a balanced solution which was appropriate from a heritage perspective.

Historic England were issued a pre-application briefing report which summarised the proposals on the 30.03.23 via email, setting out the details of the proposed works. Historic England confirmed that the proposals appeared to be acceptable and that they did not require any further pre-application briefing via email on 03.04.23.

5 Proposals

The description of development for the Listed Building Consent is:

Listed Building Consent for reprofiling of valley gutters, repairs to roof trusses and replacement of torching to Bay 4 within the 1830 Warehouse roof.

5.1 Valley Gutters

The valley gutters are currently failing due to structural settling which has lowered the central high point of the gutters, narrow openings along the length which has resulted in blockages and makes maintenance more difficult, and more intensive rainfall periods.

Proposals for repairs of the valley gutters are set out in detail within Section 3.1 of the Design and Access Statement Section prepared by Studio Downie in support of this application. In brief, the solution is to create a deeper sided tapered gutter detail, traditionally lined in lead, with a new profile and slope.

The design will result in a minor change to the visual appearance of the gutters which will become wider and slightly more elevated in the centre over their existing positions. These features are primarily the creation of a 1990s restoration while their historic aspects – the openings through the parapet walls; the alignment between the pitched roofs; the internal support purlins and relationship to the main trusses - will all be preserved. New structure required to raise the central part of the gutters will be located and fixed above the internal roof structures with no greater impact than the current structures.

5.2 Bay 4 Roof

The existing condition and need for repairs to Bay 4 are set out on Page 19 of the Design and Access Statement. Repairs to the roof are essential to maintain active use of the upper floor of Bay 4, to improve the environmental performance of the building overall and to remove the current ongoing risk to users which is arising through failure of the existing torching which has led to material falling from the roof on a regular basis.

Numerous options for repair works were considered by Studio Downie which are detailed in full in section 3.2 of the Design and Access Statement.

Upon review of these options, it was concluded that 'Option 6' provided the most suitable approach. This option will see the roof insulated from above the rafters, with appropriate measures taken for vapour permeability. Internally, battens can be retained which visually span the rafters as well as the sarking boards at valley gutter level. Between the battens and rafters, a lime plaster coat would be applied to the underside of the membrane and carrier board giving a very similar finish to that which currently exists.

5.3 Truss Repairs

A variety of failures, splits and damaged truss chords were observed in Bays 1 and 2 of the building's roof. The current condition of the truss chords is fully detailed in Section 3.3 of the Design and Access Statement.

Proposed works comprise repairs to the truss chords using a combination of spliced timber repairs, bolted over-plates or resin repairs. Where over-plating is used in damaged areas, as much historic fabric will be left in situ as possible. In all instances the proposed repairs seek to retain as much of the original historic fabric as possible and to be fully legible as repair interventions, enabling the ongoing development of the building to be understood.

6 Methodology

Method Statements for all works to be carried out as part of this application have been prepared by Studio Downie, which fully detail how the works will be carried out, as well as how historic fabric will be protected prior to works beginning and throughout works taking place.

The Method Statements have been split into four workstreams (Valley Gutters, Bay 4 Roof, Truss Chord Repairs and Temporary Works). A full methodology of all works can be found in Appendices B.1-B.4 of the Design and Access Statement while a general summary can be found in Appendix B5.

The methodologies prepared by Studio Downie set out the sequential process of recording the protection of historic fabric and monitoring works which would ensure the significant elements of the listed building are preserved.

Further to this, the accompanying Heritage Impact Assessment prepared by HCUK Ltd assesses the works in terms of impact on the listed building and concludes that majority of works present no harm to the heritage asset, with one isolated instance of less than substantial harm to the Bay 4 Roof. This is considered in more detail in the following section of this cover letter.

7 Accordance with Planning Policy

Heritage and Conservation

The key material planning consideration for this application is the impact on the designated heritage asset - the 1830 Warehouse - and therefore adherence to planning policy relating to the historic environment is required.

Paragraph 190 of the National Planning Policy Framework ('NPPF') (2021) states that:

"in determining applications, local planning authorities should take account of:

- *the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;*
- *the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and*
- *the desirability of new development making a positive contribution to local character and distinctiveness."*

Paragraphs 201-203 place great weight on the conservation of designated heritage assets, emphasising the need to avoid "substantial harm" in terms of demolition, significant alteration, or compromise the setting unless that harm is clearly justified (via four specific tests) or there are substantial public benefits that outweigh that harm. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits.

The accompanying Heritage Impact Assessment notes that the proposed works focus on a programme of essential repairs to the 1830 Warehouse, covering specific works within the roof structure and upper floors which include some changes that address a need to enhance the thermal performance of the building overall and secure its most optimum viable use into the future. It is concluded within this document, that works to reprofile the valley gutters, and to effect repairs to primary truss timbers, are considered to give rise to no harm to the building's significance. However, it is also concluded that works to the Bay 4 Roof will see a low level of less than substantial harm caused to evidential values as the internal lime finish of Bay 4 will no longer be an authentic torched finish directly applied to the underside of slates.

It is considered that the public benefits associated with the proposed repair works to the Bay 4 Roof significantly outweigh the associated heritage impact which are centred around the beneficial long-term and optimum viable use of the listed building. Ultimately, the improvements afforded by replacement of

the essential repairs to the 1830s Warehouse roof, will help to ensure the long-term conservation and appreciation of this protected asset, as well as enhancing the experience for those visiting the Science and Industry Museum.

Saved UDP Policy DC18.1 states that MCC give particularly careful consideration to development within Conservation Areas and will seek to preserve and enhance the character of these designated areas. Saved UDP Policy DC19.1 also states that applications for listed building consent, involving or having an impact on buildings of Special Architectural or Historic Interest, will have regard to securing the retention, restoration, maintenance and continued use of such buildings and to protecting their general setting.

The proposed works are essential for the retention and restoration of the 1830 Warehouse as the historic fabric is deteriorating as a result of the natural processes of time, weathering and use. The repairs to the Bay 4 roof, valley gutters and truss chords are therefore necessary in terms of the ongoing viable use of the heritage asset.

The works proposed to facilitate the future reuse and conservation of the building will result in the preservation of the significance of the building and will contribute towards the enhancement of the character and appearance of the Castlefield Conservation Area.

The proposals can therefore be considered to be in accordance with Policy CC9 Design and Heritage of the Manchester Core Strategy (2012) as well as saved UDP Policies DC18.1 and DC19.1.

8 Application Documents

The following information is provided in support of this application:

- Application Form and Ownership Certificates prepared by Deloitte;
- Application Site Boundary and Site Location Plan, prepared by Studio Downie;
- Design and Access Statement (including Schedule of Works and Repair Methodologies), prepared by Studio Downie;
- Condition Survey, prepared by Studio Downie;
- Heritage Impact Assessment, prepared by HCUK Group;
- Structures Report, prepared by Conisbee (see Design and Access Statement Appendix A); and
- Method Statements, prepared by Studio Downie:
 - Methodology for Valley Gutters (see Design and Access Statement Appendix B.1)
 - Methodology for Bay 4 Roof (see Design and Access Statement Appendix B.2)
 - Methodology for Truss Chord Repairs (see Design and Access Statement B.3)
 - Methodology for Temporary Works (see Design and Access Statement B.4).

- Methodology – General Summary (see Design and Access Statement B.5)

The Planning Portal Reference is PP-12087594 and the required planning application fee has been paid online.

We look forward to receiving your confirmation that the application has been formally registered. In the meantime, if you have any queries or require any further information, please do not hesitate to contact Joe McElhone (0161 455 6994 / joemcelhone@deloitte.co.uk) or Ellie Bird (020 7007 3891 / efbird@deloitte.co.uk)

Yours sincerely

A handwritten signature in black ink that reads "Deloitte LLP". The signature is written in a cursive, flowing style.

Deloitte LLP

Appendix A – Drawing List

Description	Drawing Reference
Site Location Plan	275/PD/01
Site Plan	275/PD/02
Existing General Arrangement Drawings	
Existing Building: Roof Plan and Reflected Roof Plan	275/PD/014
Existing Building: External Elevation	275/PD/020
Existing Building: Internal Elevation GA	275/PD/050
Valley Gutters	
Valley Gutter: Existing Bay 2 GA sectional elevation + plan	275/PD/120
Valley Gutter: Existing Typical Detail over Valley Beam	275/PD/121
Valley Gutter: Existing Typical Detail over Brick Cross Wall	275/PD/122
Valley Gutter: Proposed Works to Bay 2 GA sectional elevation + plan	275/PD/320
Valley Gutter: Proposed Works to Typical Detail over Valley Beam	275/PD/321
Valley Gutter: Proposed Works to Typical Detail over Brick Cross Wall	275/PD/322
Bay Roof 4	
Bay 04 Roof: Existing detail	275/PD/130
Bay 04 Roof: Proposed Works	275/PD/330
General Arrangement	
Proposed Works to Existing Building: Roof Plan and Reflected Roof Plan	275/PD/714
Proposed Works to Existing Building: External Elevation	275/PD/721
Proposed Works to Existing Building: Internal Elevation GA	275/PD/751

Conisbee Drawings - structural repairs	
Second Floor Plan Structural Repairs	
Typical Structural Repairs Roof Details Sheet	