

HERITAGE IMPACT STATEMENT

Proposed Solar Photovoltaic Installation – Cobbett House (Grade II Listed)

Manchester Royal Infirmary, MFT

Prepared by Revolution Energy Services

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Introduction

This Heritage Impact Statement accompanies the proposed installation of a Solar Photovoltaic (PV) system on the roof of **Cobbett House**, a **Grade II Listed Building** forming part of the Manchester Royal Infirmary estate.

The proposal supports Manchester University NHS Foundation Trust's (MFT's) decarbonisation strategy under the NEEF programme. The document evaluates the heritage significance of the building, describes the proposed works, and assesses their impact in accordance with:

- Planning (Listed Buildings and Conservation Areas) Act 1990,
- NPPF (2023) – Section 16: Conserving and Enhancing the Historic Environment,
- Manchester Local Plan heritage and sustainability policies.

Heritage Significance of Cobbett House

Cobbett House is a Victorian institutional building of high architectural and historic interest, characterised by:

- Red brick and terracotta facades,
- Ornamental detailing and traditional fenestration,
- A historic roofscape and courtyard arrangement integral to the hospital's development,
- Social significance through long-standing NHS use.

Key features contributing to its significance are the elevations, decorative masonry, historic silhouette, and courtyard composition.

The flat roof areas proposed for the PV installation do not form part of the architecturally sensitive or publicly visible elements of the building.



Description of Proposed Works

Overview

The proposal comprises an 84.8kWp Solar PV system, using:

- 160 × JA Solar JAM60D-42-530-LB-TS 530Wp dual-glass modules.
- Mounted on an ESDEC FlatFix Fusion East-West orientation system.
- At an 10° tilt, installed entirely on the central flat roof area allowing existing roof access and maintenance.

Technical design information is supported by the FlatFix Fusion calculations and layout drawings in the uploaded project plan.

Mounting System and Heritage Protection

- The ESDEC FlatFix Fusion system is a fully ballasted non-penetrative mounting frame, meaning no fixings into the historic roof structure, avoiding any loss of heritage fabric.
- The modules are arranged in large, regular arrays centrally within the roof zone, maintaining clear access routes around the perimeter for maintenance (see roof overview, pages 7–8).
- The system uses an East–West orientation to:
 - Reduce wind uplift loads on the heritage roof.
 - Lower the overall array height.
 - Limit visual impact.
 - Comply with the load calculations summarised in the design report (average load ~5.64 kg/m²).

Visibility and Parapet Height

- The roof parapet is approximately 1.1 m high, as confirmed in the design inputs.
- The East–West ESDEC system has a low physical profile, and when positioned centrally, remains fully screened below the parapet line.
- As a result, the PV system will not be visible from street level or neighbouring properties, and only minimally visible from limited elevated internal viewpoints.

Access for Construction and Maintenance

- There are two existing internal roof access points, confirmed by site photos (pages 1 and 3).
- Materials will be lifted using a central courtyard hoist, avoiding any impact on historic external façades or elevations.
- Maintenance access zones remain unobstructed.

Cable Routing and Inverter Location

- To minimise internal routes and works, AC cables will be routed externally down the Southeast internal corner of the building, where the elevation is not visible from public viewpoints.
- Photos confirm this location is visually concealed (page 11).
- The inverter will be positioned at roof level near the parapet, again shielded from public view.

Assessment of Heritage Impact

Impact on the External Appearance

- The 1.1 m parapet fully conceals the ESDEC system and modules from ground-level viewpoints.
- No changes will be made to the building's elevations, windows, chimney features or historic roof edges.
- The equipment is low-profile, dark-coloured, and consistent in form, ensuring a neutral visual impact.

Conclusion: *No harm to the building's appearance or its contribution to the wider conservation setting.*

Impact on Historic Fabric

- The ballasted, non-penetrative mounting system avoids drilling or fixing into the original roof structure.
- Loads are distributed through purpose-designed baseplates with known load values (e.g., max static point load 20.71 kPa) as per engineering files.
- Cabling routes avoid internal fabric disturbance and are fully reversible.
- Independent structural assessment is being undertaken by the Trust's appointed engineer.

Conclusion: *No loss of historic fabric; all works fully reversible.*

Policy Assessment (NPPF & Local Policy)

Under the NPPF:

- The works result in “no harm” (a level below “less than substantial harm”) due to:
 - zero visibility.
 - Reversibility.
 - no fabric alteration.

Under Manchester Local Plan heritage policies:

- The proposal represents sensitive integration of renewable energy in line with sustainability goals and the Council’s carbon reduction commitments.

Mitigation Measures

The following measures further protect the heritage asset:

1. Central roof installation, away from parapet sightlines.
2. Non-penetrative ESDEC system to avoid damage to historic roof layers.
3. Low-height East–West arrays to remain fully concealed.
4. Cable drop located in a visually hidden internal corner (confirmed in site photos).
5. Material lifting through internal courtyard to protect the listed façades.
6. Full pre- and post-install photographic record.
7. All works undertaken by specialist contractors experienced with listed estate projects.

Sustainability and Public Benefit

The system will generate approximately 70 MWh per year, reducing emissions by 13.54 tonnes CO₂ annually (equivalent to 622 trees), based on SolarEdge system modelling. This directly supports:

- NHS Net Zero objectives,
- Local and national climate policies,
- Public health and operational resilience.

These benefits significantly outweigh any negligible temporary impacts during installation.

Conclusion

The proposed Solar PV installation on Cobbett House:

- Causes no harm to the architectural or historic significance of this Grade II Listed Building.
- Is entirely reversible.
- Is not visible from surrounding public areas.
- Avoids any intervention with protected fabric.
- Aligns with national heritage policy.
- Provides substantial environmental benefit.

The works are therefore considered acceptable in heritage terms and suitable for Listed Building Consent approval.

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