

The Arthouse, George Street, Manchester, M1 4AB – Architectural Method Statement

Drafted 23/03/2021

Introduction

The Arthouse comprises former warehouse buildings, constructed circa 1845, which were converted to residential use circa 2007.

Copies of the Historic England listings are included in the statement appendices for easy reference, 1218183 and 1270913.

Conversion of the property included reconfiguration and covering/recovering of the roofs however, these have been found to be completed to a poor standard and the property now suffers from numerous leaks to the apartments at the top two storeys.

The roof leaks are due to a number of factors, briefly identified as follows:

- Leaks through lead lined gutters, where joints have failed.
- Delamination and failure of the flat roof covering.
- Poor detailing of the slate covered pitched roofs around conservation rooflights.
- The pitched roofs have been found to have been re-roofed with untreated timber battens, resulting in premature deterioration.

Remedial Works

Remedial works are required to the three principal failing components, (1) flat roof coverings – shown in blue, (2) pitched roofs – highlighted in orange and (3) lead-lined gutters shown in green. Remedial works are summarised as follows:

1. Flat Roofs

The Flat roofs currently comprise an EPDM roof covering overcoated with a liquid membrane, which is de-laminating across 95% of it's surface.

The works comprise stripping all areas of the flat roof covering and internal gully linings (shown in blue on the attached images), retaining the existing rigid insulation and applying a Firestone EPDM single-ply covering with a minimum 20 year guarantee to all flat roof and gully areas. Installation of the new roof covering will ensure correct detailing with the perimeter, mono-pitched slate covered roofs and flashed around all roof upstands. The works will prevent rainwater penetration through the roof and ensure that rainwater is correctly discharged through the gullies between the pitched roofs and into the existing rainwater fall pipes.

2. Pitched Roofs

The existing Welsh slate covered pitched roofs suffer poor detailing at the ridge junction with the flat roof, at the perimeters of the conservation rooflights and other roof penetrations, where water is leaking to the internal. Localised inspection beneath the slate covering revealed poorly installed roof felt, untreated timber roof battens and roof nails not galvanised which is resulting in numerous displaced slates.

The works comprise stripping all of the Welsh slate pitched roof coverings, setting the slates aside for re-use where suitable. Stripping the existing timber roof battens and roofing underlay and de-nailing roof timbers in preparation for re-roofing. Installation of a Klover Permo roof breathable roof underlay, new tanalised timber roof battens secured to the existing structural roof timbers. Re-slating the roof using the existing roof slates where suitable and sourcing reclaimed Welsh roof slates to match the existing, to complete the roof covering. The existing clay ridge and hip tiles are to be lifted prior to re-roofing and re-bedded upon completion of the slating works. Flashings around the conservations rooflights are to be replaced where necessary, to ensure that the openings are watertight and free from leaks.

3. Gutters and Copings

The existing lead lined gutters are failing on the gutter joints, resulting in rainwater penetration to the internal and causing saturation to internal stonework in numerous locations. There are numerous areas of ineffective localised repairs with liquid applied solutions.

The gutters are to be inspected at high level once the access scaffolding is in place, to ensure that they provide a suitable substrate to apply the waterproof lining. A Firestone EPDM gutter lining will be installed to all lead lined

gutters, with movement joints installed in accordance with the manufacturers' technical details, to provide a continuous and watertight gutter to discharge rainwater from the pitched roofs. Mortar joints to the copings are crumbling in areas and we will utilise the access scaffold to address this. All coping joints are to be raked out and re-pointed with a lime-based mortar, to match the existing in colour.

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