CUSHMAN & WAKEFIELD

PRIVATE AND CONFIDENTIAL

FLAT ROOF WORKS
SUMMARY FOR LBC/PLANNING

48 King Street
Manchester

REV 3 May 2025



Contents

1. Preparation Works – Removal of AC units by others 3

2. Brick & Stonework Repairs 3

2.1. METHODOLOGY: 3

3. New Roof Deck to Lightwell 3

3.1. METHODOLOGY: 4

4. New Roof Covering to new flat roof deck 4

4.1. STATUTORY REQUIREMENTS: 4

5. Rainwater Goods 5

5.1. METHODOLOGY: 5

Appendix A: Planning Drawings 6

Appendix B: Bauder information 7

1. Preparation Works – Removal of AC units by others

Prior to the roof works, the existing A/C units will be removed from the wall and removed from site by others. These works will be done by the Tenant and co-ordinated with the roof works.

2. Brick & Stonework Repairs

2.1. METHODOLOGY:

Brickwork Repairs:

Fixing holes for the A/C units will be repointed as follows:

- repoint in lime mortar (NHL 3.5).
- Allow to carefully rake out loose and friable mortar to joint to minimum depth of 10mm.
- Repoint with lime mortar – Conserv NHL3.5/GL1.
- Care should be used to colour match surrounding pointing.

NB Re-pointing to brickwork with lime mortar only

Brick replacement if required are to match existing – samples required for approval.

Stonework Repairs

The electrical cables for the A/C penetrates through a stone section, which has been displaced. Further investigations will be required once safe access available off the new roof by a structural engineer to advise if additional support/pinning is required. Basic stone repair methodology as follows:

- Lithomex Restoration and Repair Mortar to be used in accordance with manufacturer's recommendations.
- nonferrous armature to be used as required.
- Stone is to be de-frassed and cleaned back to a good quality substrate
- Straight edges will be built up with a repair mortar and worked by hand with a trowel

3. New Roof Deck to Lightwell

The roof investigations showed the roof deck build up as follows:

- Felt
- 25mm asphalt
- Screed
- Woodwool slab (approx. 50mm)

Woodwool slab can be an issue when if it gets wet, as this will impact its structural integrity. There has been some water ingress to the flat roof in the lightwell. The roof deck is not accessible from the ground floor, which is occupied, as there are significant plant and services within the ceiling void. Any internal works would disrupt the occupation of the retail tenant.

The advice from the structural engineer is to install a floating deck above the existing. This can be built with sufficient loading capacity to allow the Tenant to install new surface mounted air conditioning condensers when the look to replace the existing (separate Planning application submitted, ref tbc).

3.1. METHODOLOGY:

- Cut 4 sides of the roof frame to size to match the length of the lightwell before being drilled and secured into the masonry using M16 resin anchors at 400mm centres
- Install joist hangers to support the main joists, which will be 50 x 175 C24 timber at max 400mm centres
- Cut and install noggins at max 600mm centres between joists
- Cut and install 12mm plywood 2no sheets high, screwing into the joists below

See Appendix A: Acies Drawing 1212-ACS-XX-010D0S01100_P01

4. New Roof Covering to new flat roof deck

Consultation with the Conservation officer noted a preference for a mineral felt system for the roof covering. This is to minimise the impact on the original building fabric, as it can be reversed. Flashing details will be chased into the brickwork along a mortar joint and a termination bar fitted along the tiled wall, which will be fixed into the grouting joints of the ceramic tiles to minimise impact on the tiles. NB the ceramic tiles will remain in place and not be removed.

Elevation drawings C&W Drawings 05A & 04A showing the overall increase in depth of the new roof.

The proposed system is a two-layer self-adhered, warm roof system.

See Appendix A:
- C&W Drawings 06 Roof details
- C&W Drawing 04A Proposed Sections AA & BB 13.05.25
- C&W Drawing 05A Proposed Sections CC & DD 13.05.25

See Appendix B:
1. Bauder Reinforced bitumen membrane warm roof covering
2. Bauder Technical Detail Drawing – D0000-00W_201_001 – Upstand details into brickwork & termination bar
3. Bauder Ventilation Calculations Sheet B244749

Summary build up as follows:

- Cap sheet Bauder K5K (**Charcoal Grey**)
- Underlayer BauderTEC KSA DUO
- Insulation BauderPIR FA-TE 140
- Vapour control layer
- 150mm upstands to perimeter walls – on three sides (elevations AA, BB & DD) – felt to be dressed up the wall and a lead flashing chased into the brickwork of the building.
- On the external wall side (elevation CC), which has glazed ceramic tiles, the upstand will be fixed to a termination bar fixed to the joints of the ceramic tiles. This avoids the need to cut/chase into the tiles and will be screw fixed to wall.
- Ventilation vents are not required to roof as confirmed by Bauder.

4.1. STATUTORY REQUIREMENTS:

Building Regulations requires that the renewal of any thermal element such as the roof needs to be meet current standards of U-value required 0.18 for flat roof with integral insulation. (Clause 4.7 Approved Document L1(a).

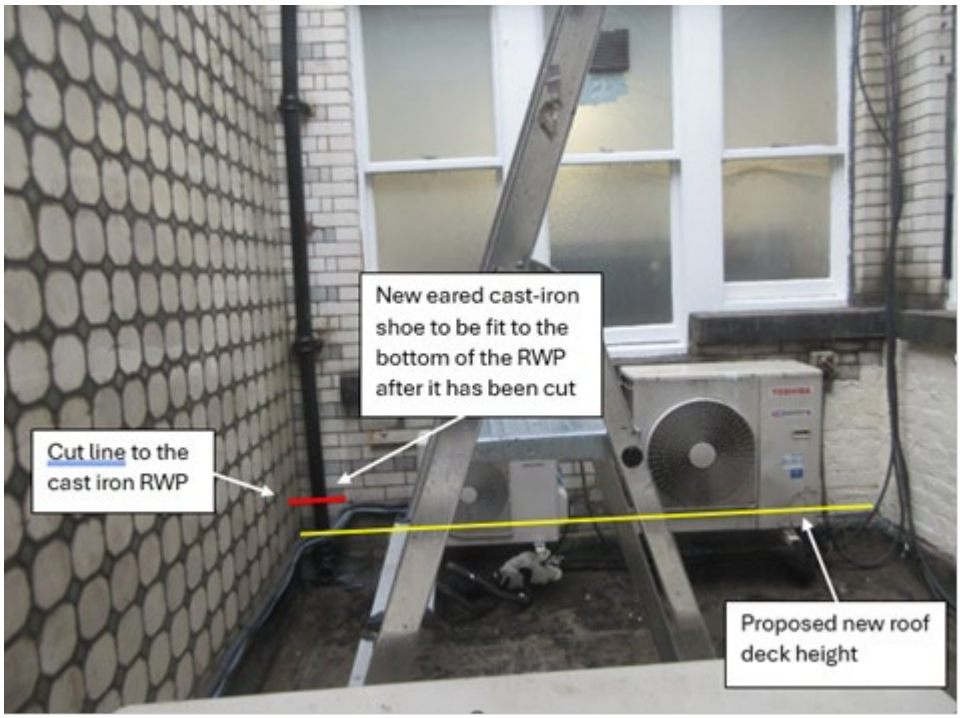
.

5. Rainwater Goods

There is a cast iron downpipe from the roof above that discharges to an outlet in the existing flat roof. A new outlet will be formed. See Appendix B: Bauder Technical Detail Drawing – D0000-00W_006_001 – Bauder Outlet. The cast iron downpipe will need to be reduced in length as the roof height is increase. This will require the pipe to be cut.

5.1. METHODOLOGY:

- Carefully remove the existing fixings to the shoe and remove the shoe
- Carefully remove the existing fixings to the bottom section of rainwater pipe (retaining original section of pipe and shoe if possible)
- Once the new roof deck has been marked out, mark the cut line on the removed section of RWP so the shoe will sit above the level of the new deck once re-instated
- Complete the re-roofing project, ensuring all flashings are in place before cutting the marked out bottom section of pipe using a 4.5'' diamond tipped grinding disk
- Refit the bottom section of cast iron downpipe and the shoe once the work has been completed
- The holes in the glazed brick from the fixings for the original shoe position will be covered by the new roof and upstand



Appendix A: Planning Drawings

- Acies Drawing 1212-ACS-XX-010D0S01100_P01
- C&W Drawing 01 Existing & Proposed Roof Plans
- C&W Drawing 02 Existing Sections AA & BB
- C&W Drawing 03 Existing Sections CC & DD
- C&W Drawing 04A Proposed Sections AA & BB
- C&W Drawing 05A Proposed Sections CC & DD
- C&W Drawing 06 Roof Details
- C&W Drawing 08 Site Location Plan

Appendix B: Bauder information

1. Bauder Reinforced bitumen membrane warm roof covering
2. Bauder Technical Detail Drawing – D0000-00W_201_001 – Upstand details into brickwork & termination bar
3. Bauder Ventilation Calculations Sheet B244749

CUSHMAN & WAKEFIELD

PRIVATE AND CONFIDENTIAL

Cushman & Wakefield

