

PERFORATED PANEL DESIGN

1

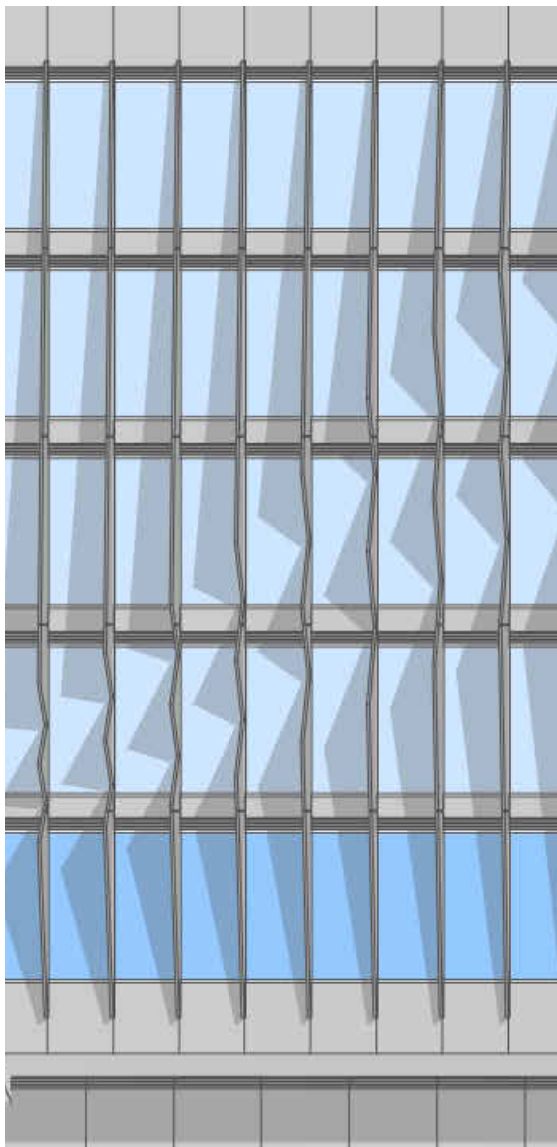
PERFORATED PANELS | INTRODUCTION

In the April 2023 planning application (REF 136763/O/2023) the Commercial and Hotel building facades featured narrow bands of louvres at each slab level that provided ventilation for internal spaces.

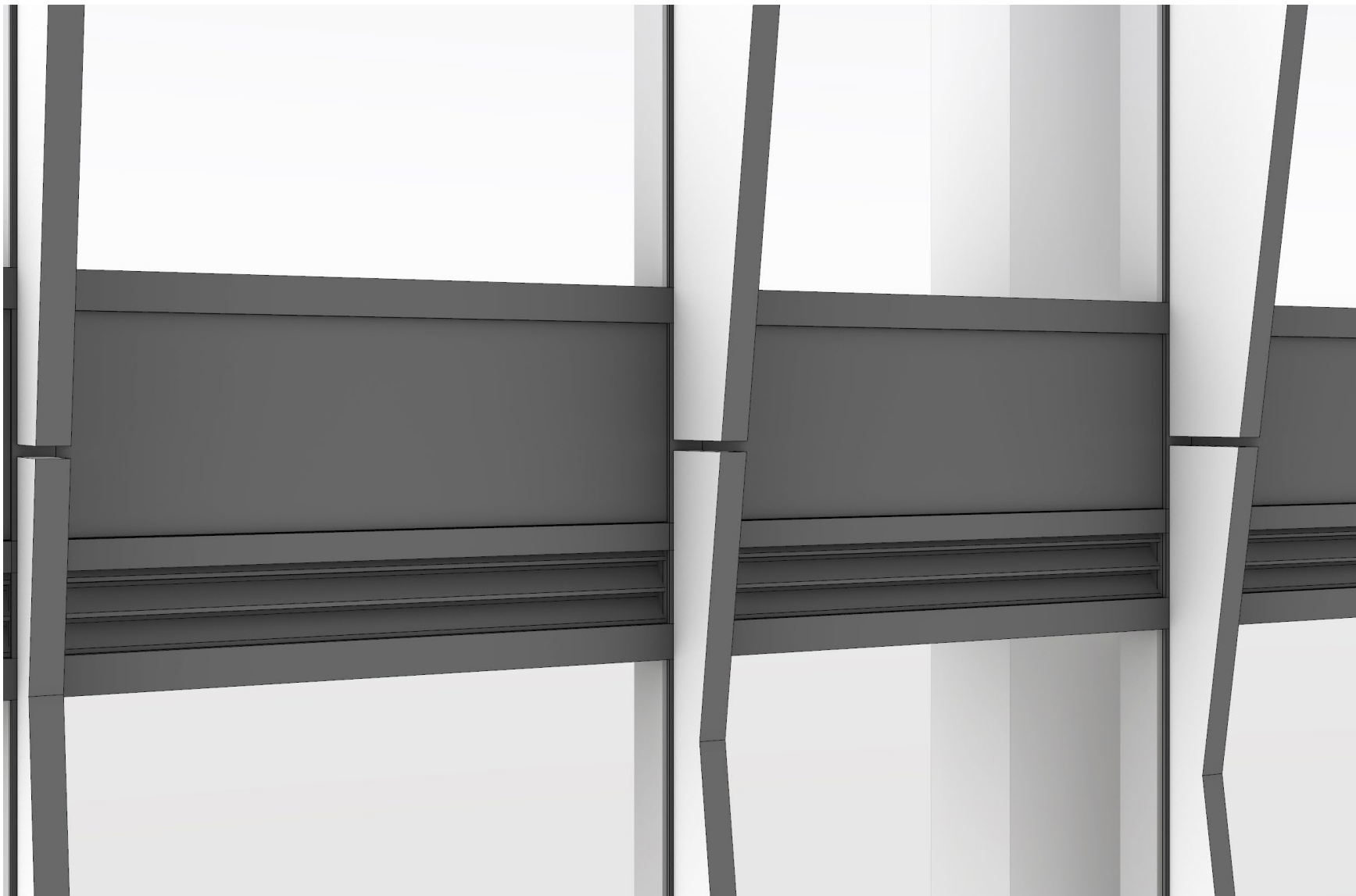
These louvres were were subject to a condition that was, as part of a non-material amendment submitted in October 2023 (REF 138417/NMC/2023), amended to the following;

“Samples and specifications of the louvre screen strategy shall be submitted for approval in writing by the City Council, as Local Planning Authority in accordance with the programme dated 25th August 2023, prepared by Sisk and the Sample Panel Layout Plan (REF NSE-POP-CM-ZZ-DR-A-SK230102) prepared by Populous. The sample panel and specifications provided in line with the programme shall include the louvre screen strategy. The approved louvre screen strategy used shall then be implemented as part of the development.”

As part of the October 2023 amendment, a sample panel layout was submitted that featured the proposed perforated panel in the brick plinth area. The intention behind this section of the report is to clarify the proposed perforated panel strategy elsewhere in the facade - primarily in the areas of curtain wall that feature the aluminium fins.



Elevation of the original louvre design intent.



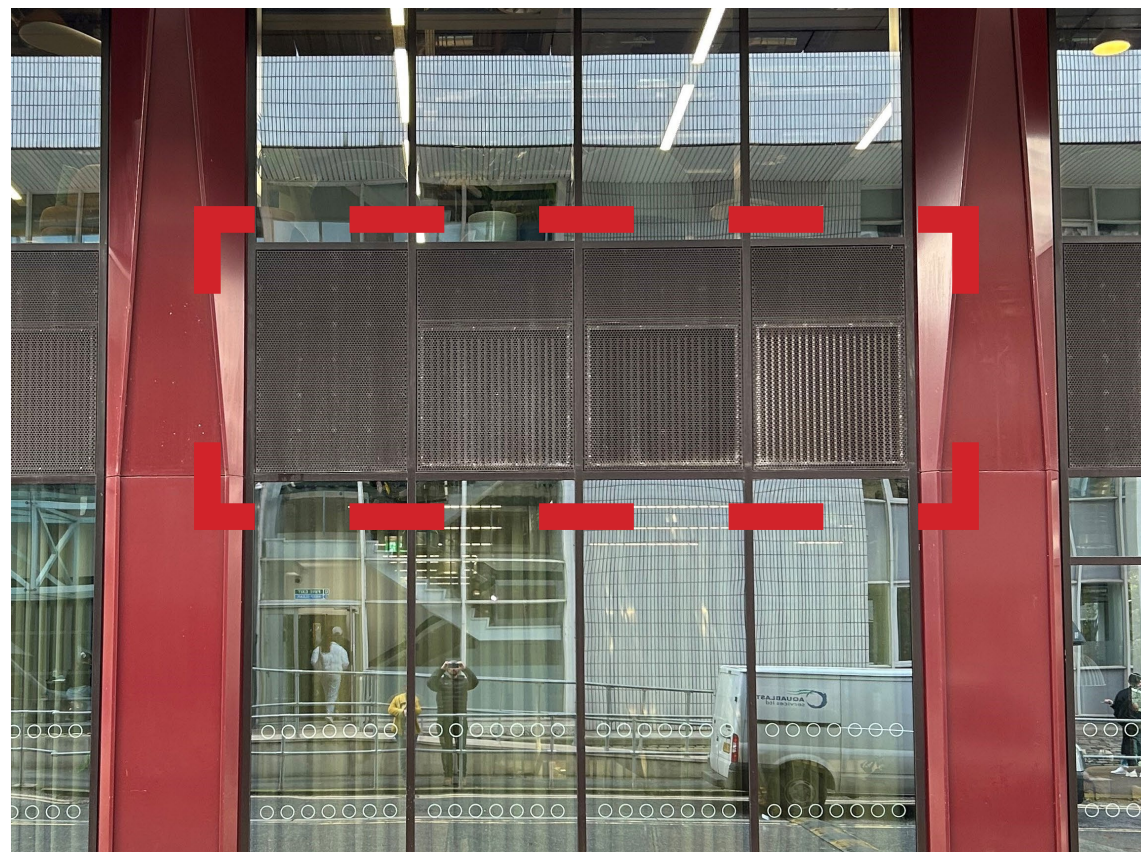
Visual of the original louvre design intent.

PERFORATED PANELS | PRECEDENT IMAGES

From seeing different approaches to perforated panels around Manchester, the design team's approach has been very clear - the panels should conceal as much as possible what happens behind them, whether that be blank panels or active plenums.

The example on the left, by having a very fragile mesh through which plenums are very visible - creating unsightly additions to the facade that have no correlation to other materials and datums.

The second example is much more successful. The perforations themselves have been more considered and an expression embraced within the design of the facade. The plenums behind will have been oversized to accommodate the reduction in free air, but the resulting impact on the facade is very beneficial.



- Panel is more solid than void and the backing panel behind becomes the dominant feature
- It is very obvious where there is a plenum behind and where there is a backing panel

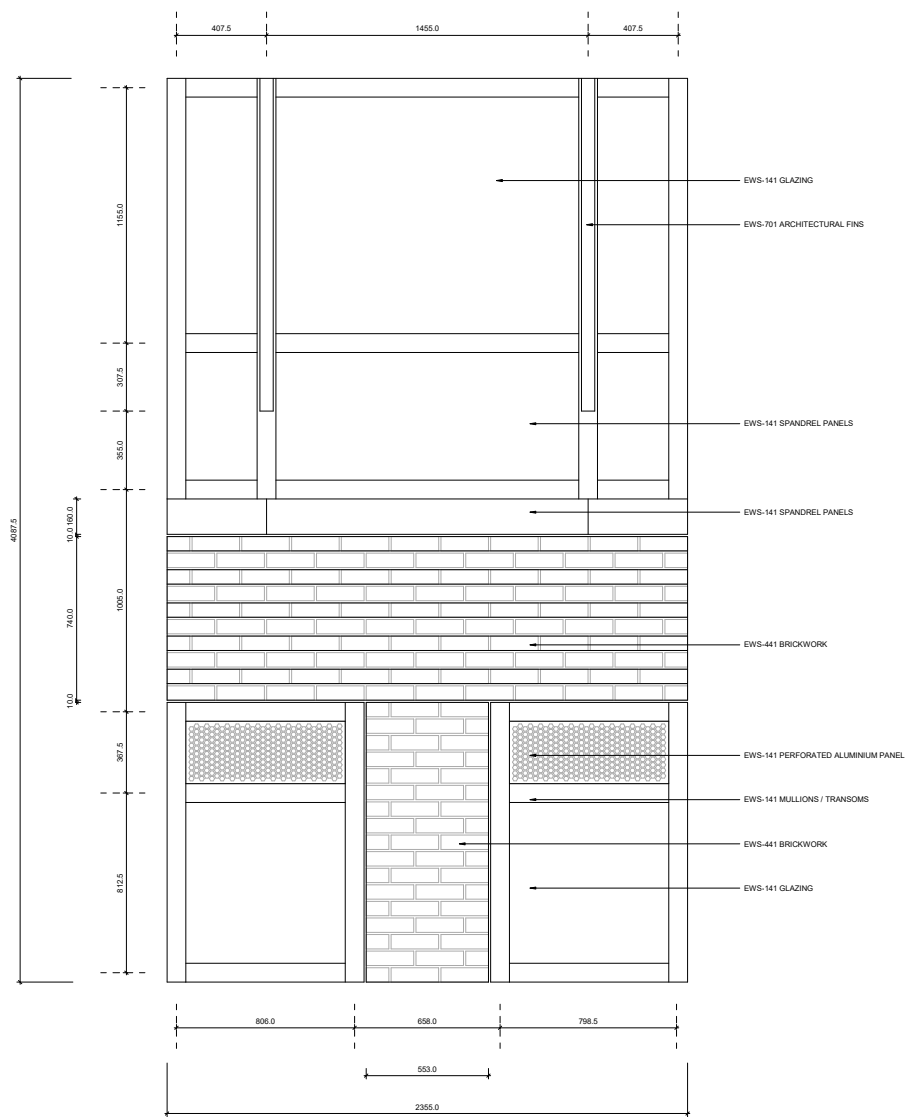
Example of plenums showing clearly behind perforated panels at Circle Square, Manchester.



- + Panel is solid enough to be visually dominant over perforations
- + Plenums or blanked panels are indistinguishable from each other, facade is more uniform

Example of more discreet plenums at Havelock, Manchester.

PERFORATED PANELS | SAMPLE PANEL



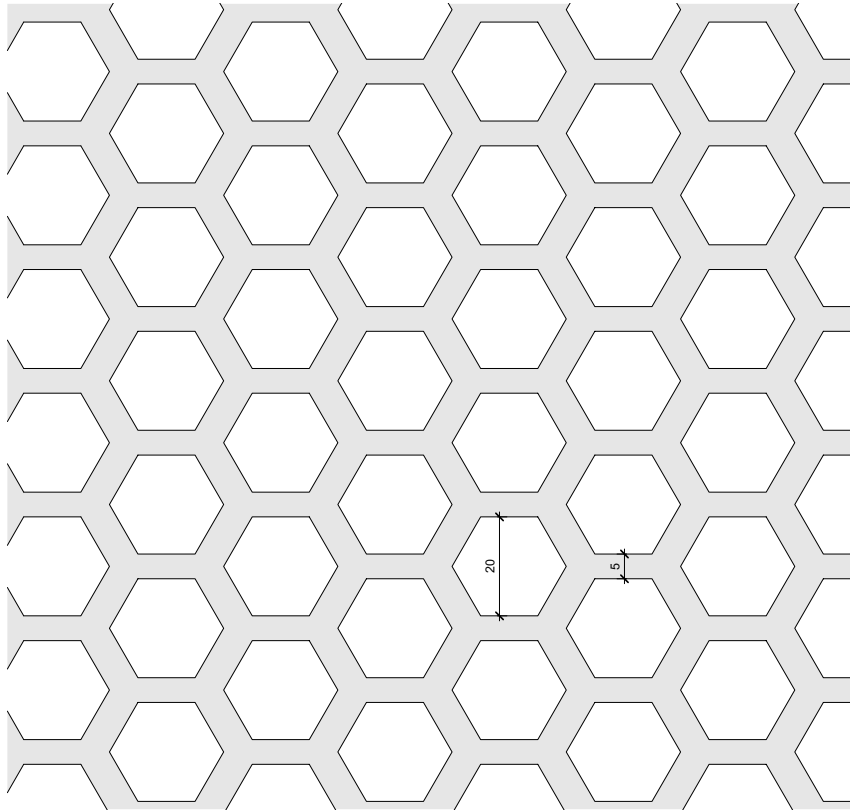
Elevation view of the agreed sample panel scope.



MCFC bee iconography.

For clarity, the drawing to the left shows the agreed scope of the sample panel, due to be completed on site in Summer 2024.

The perforations themselves are shown as a hexagonal ‘honeycomb’ pattern. This provides a subtle nod to Manchester’s bee symbology and fulfilling the Club’s brief



Honeycomb detailing for perforated panels.

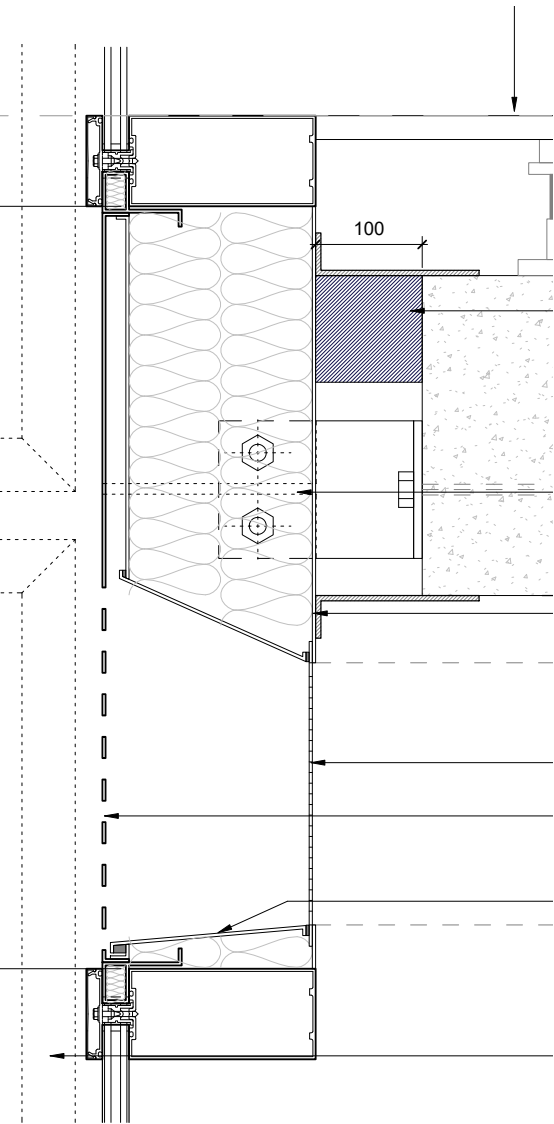
to respect the history of the city and the football club through softer means than more pronounced and obvious branding.

However, the ‘slice’ of the building that has been taken for a sample panel includes the perforated panel within the brick plinth and

not one within the feature fins part of the curtain walling.

As the panels in this latter area include slab edge detailing at each floor level, active plenums would only be behind a portion of each panel.

PERFORATED PANELS | PROPOSED DESIGN



Section detail through perforated panels.

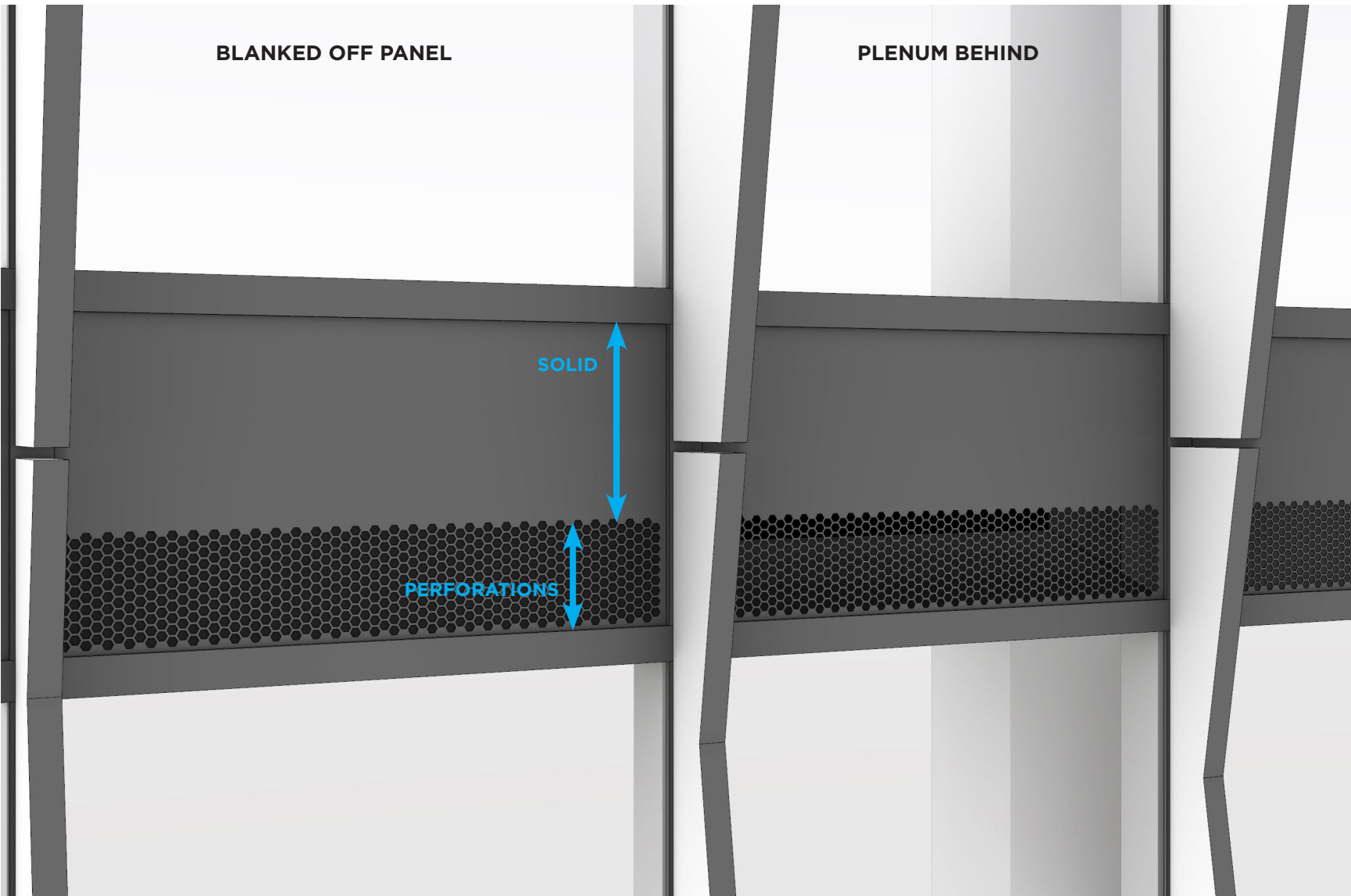
The proposed perforated panel accommodates the different appearances when the perforated panel is blanked off behind or when there is an active plenum behind the perforations.

By limiting the height of the band (as shown in the image to the right) and maintaining full-width plenums between curtain wall mullions, there is always separation between the two conditions.

The blanking off panel and the inside of the plenum will both be coloured black to further minimise the distinction between them.

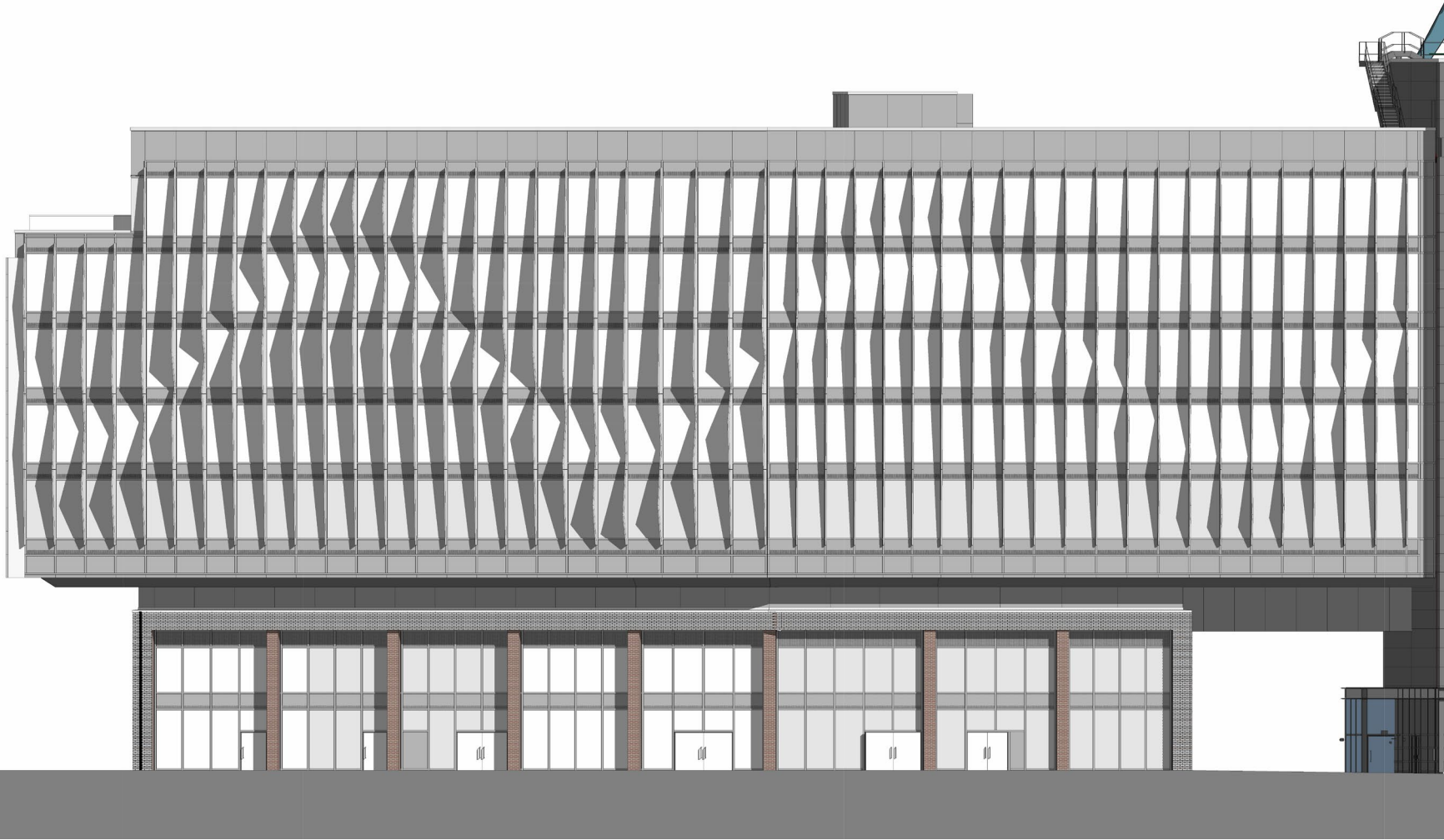
This design also reduces the mass of the cladding strip by breaking apart the appearance of the two parts (flat and perforated) of each panel, more closely mimicking the original intent of the louvres than a full-height perforated band would do. This also reduces the visual impact of a panel that is approximately 800mm high.

The perforations themselves are shown as a hexagonal 'honeycomb' pattern. This provides a subtle nod to Manchester's bee symbology and fulfilling the Club's brief to respect the history of the city and the football club through softer means than more pronounced and obvious branding.

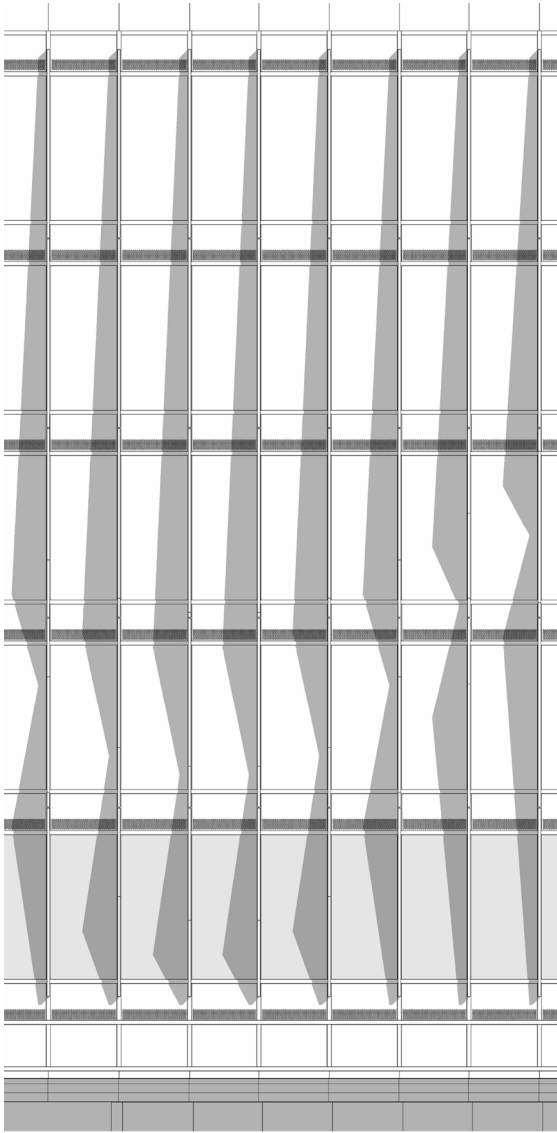


Visual showing the reduced contrast between a blanked off panel and one with a plenum behind.

PERFORATED PANELS | PROPOSED ELEVATION



Elevation of the Commercial Building (as an example) showing the impact on the overall building.



Elevation of the proposed perforated panels.

As a result of keeping the perforations to an elegant datum, very similar to that of the louvres that were shown in the original planning application, the overall impact on the facade of the update to perforated panels is negligible.

The adjacent images, given as examples at varying scales,