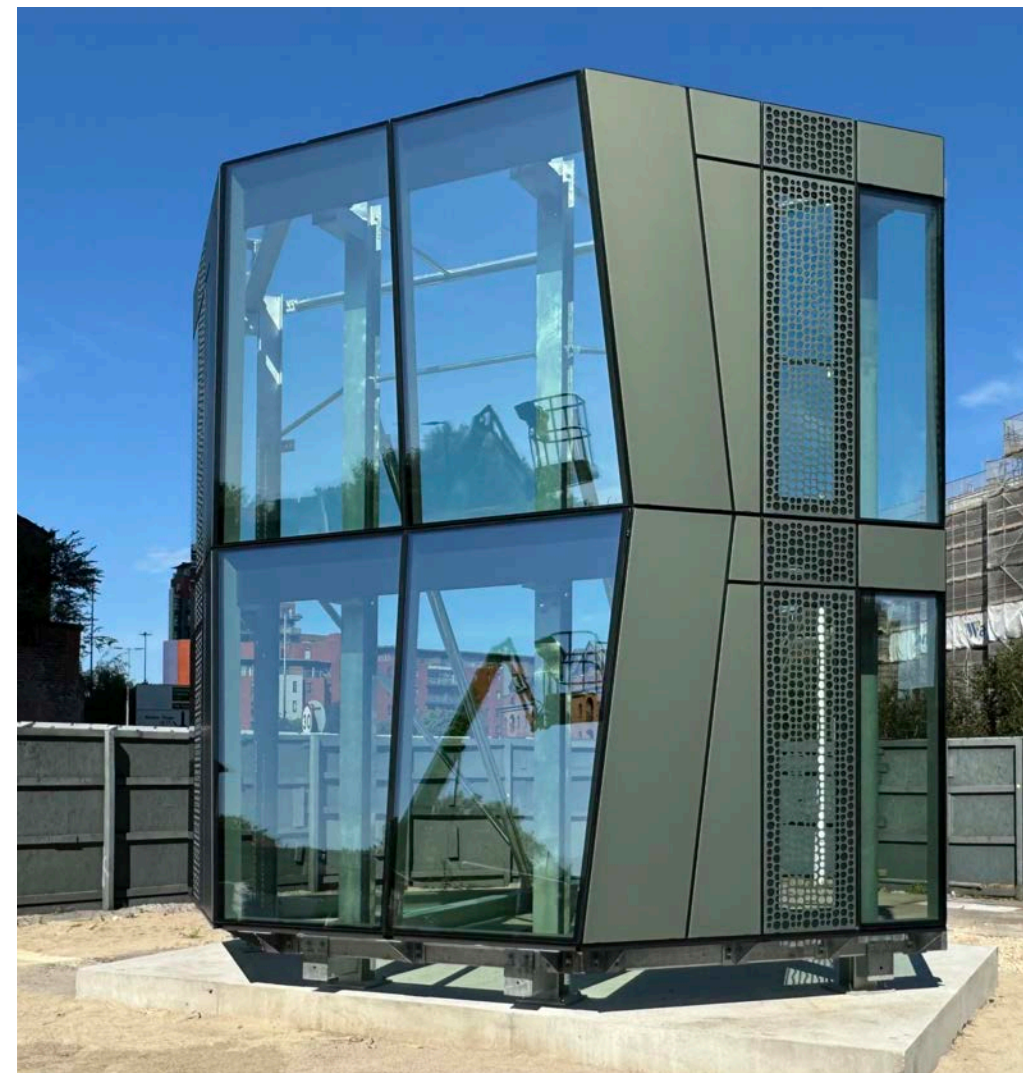


simpsonhaugh



Plot F, Great Jackson Street – Manchester

TOWER F1 & F2 - VISUAL MOCK-UP SUMMARY | SEP 2024
10334-Z1-SHP-A180-Rp-XX-VMU01 | REVISION P 01



Visual Mock-Up (VMU) summary

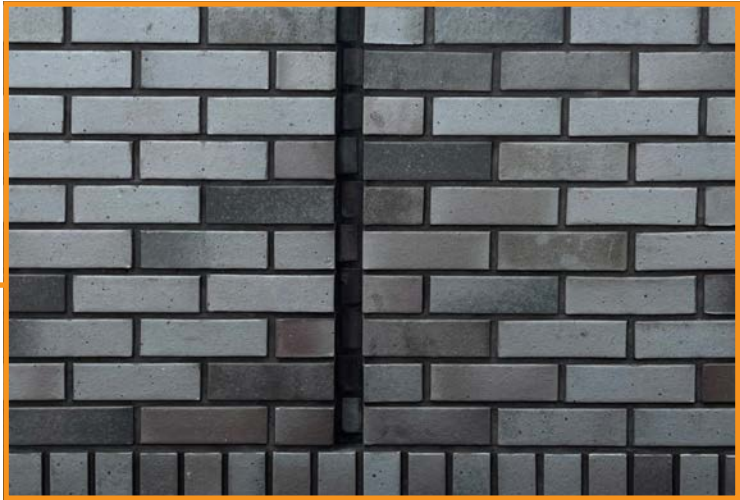
Purpose of the report

The report summarises agreements made relating to finishes and materiality of the unitised curtain walling and low level podium brickwork for Plot F, incorporating both towers F1 and F2.

- 01 - Tower F1 & F2 - Visual Mock Up review Page 4
- 02 - F1 & F2 - Podium brickwork Page 12
- 03 - F1 & F2 - Feature columns Page 14



Visual Mock Up - Tower facade (F1 & F2) Page 6



Brickwork - Podium facade (F1 & F2) Page 12



Feature Columns (F1 and F2) Page 14

Tower F1 and podium
CGI (Planning Stage)

01a - Hand Sample Reviews

Initially, large format hand samples were reviewed to represent most closely the design intent of the consented planning scheme. These hand samples were then used to inform the procurement of the panels for the Visual Mock-up with the same specification being carried forward.

Date
22nd July 2021

Attendees
SimpsonHaugh
Renaker

Location
Deansgate Square, Manchester

Manchester City Council
The agreed hand samples were then presented to Manchester City Council on Friday 27 August 2021.

SAMPLE PHOTOGRAPHS



SAMPLES IN SHADE



SAMPLES IN SUNLIGHT

1. NECE S-C-15-B
LIGHT BLUE ANODISED
CHIMICO FINISH
2. NECE S-C-35-V
LIGHT GREEN ANODISED
CHIMICO FINISH

01a - Hand samples in context of VMU



1. NECE S-C-15-B
LIGHT BLUE ANODISED
CHIMICO FINISH



2. NECE S-C-35-V
LIGHT GREEN ANODISED
CHIMICO FINISH

Tower F1 - Agreed hand sample + same spec. finish on VMU

Tower F2 - Agreed hand sample + same spec. finish on VMU

Visual Mock-Up Review

Date
7th August 2024

Location
Plot B compound, Great Jackson Street, Manchester

Attendees

SimpsonHaugh (SH):	David Green, Henry Mulligan, Pablo Cabrejas Benito
Renaker (RBL):	James Sidlow, Dan Worrall
Manchester City Council (MCC):	Dave Roscoe, Lucy Harrison

Summary

The Visual Mock-Up (VMU) has been constructed in Manchester by the project’s Facade Contractor; Focchi to an agreed scope by Renaker / SimpsonHaugh and Manchester City Council. The VMU comprises two storeys of the corner of the building, capturing the finishes for both F1 and F2 towers. The VMU is constructed from representative units, that visually, are identical to the colour, finish and glass composition of the proposed final units that will be used within the construction of the building.

A series of reviews have been held by the Design Team, Focchi and SimpsonHaugh Founding Partners to ensure the proposals were in line with the consented design intent. SH presented the VMU to MCC to contextualise the VMU within the wider scheme. MCC were supportive of the overall quality, finish and appearance of the cladding.

MCC comments

MCC queried the scale of the drainage slots present on each of the solid panels, the rationale for the size and quantum of the slots is covered in further detail in the following pages with a technical note provided by Focchi.



Visual Mock Up
Photographed 29.07.24

Visual Mock-Up Review - MCC comments

Date
7th August 2024

MCC comments
MCC queried the requirement for the size and quantum of the drainage slots present in the solid panels.

SH comments
The slots are of the same dimensions used across Deansgate Square, Crown Street Phase 2 (The Blade and Three60) appearing on the perforated purge vent sheets to allow rainwater to drain from the back of the panels. Tower F1 and F2 do not feature any back painted glass units there are therefore comparatively more metal sheets to incorporate the slots than other schemes in the New Jackson area.

Focchi (Facade Sub-contractor) comments
Please see overleaf for the technical justification provided in relation to the slot size and quantum.



Drainage slot Drainage slot Drainage slot



Drainage slots

Purpose of the report

The report has been prepared by the facade sub-contractor; Focchi, and seeks to provide a technical justification for the size and quantity of the drainage slots incorporated in the metal panels on the Plot F towers.

ARCHITECTURAL
BUILDING
ENVELOPES





Project : **Great Jackson Street - Plot F
Manchester**

Project nr: **230060**

Client : **RENAKER**

Architects: **SimpsonHaugh**

Report : **-**

Object: **Quantity and dimensions of
drainage slots on metal panels**

Rev.	Issue N°	Date	Written by	N° pages
P01	-	21/08/2024	S. Gobbi	-

Comments:

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INTRODUCTION

The aiming of this report is to justify the quantity and dimensions of drainage slots on metal panels for Great Jackson Plot F, Manchester.

PRINCIPLES OF WEATHERTIGHTNESS

Drainage provision is incorporated within a unitised system as a precautionary measure, based on the principle that some water could penetrate behind the external skin (metal panel) and the interstitial condensation must be drained from the insulated panel. Drainage is normally achieved by machining holes at a suitable low point in the system to allow water to flow out under gravity. The action of a number of forces will, however, conspire to inhibit drainage under normal conditions:

- Surface tension will tend to keep the water in contact with the metal surfaces and the perimeter of the drainage hole. The sooner this hold is broken the more readily will the water drain away. An increase in volume and thus weight of water will eventually overcome surface tension, but increasing the size of drainage hole is equally important.
- External wind pressure will hold water back until either the wind pressure falls or the water builds up to a level sufficient to overcome the pressure. Drainage slots at the sill, which are covered by a film of water, cannot assist in the process of pressure-equalisation. Indeed, a number of systems, which purport to be pressure equalised, fail to perform owing to their reliance on a single level of drainage holes.
- Obstructions to the drainage paths will also prevent the escape of water from within the system. These obstructions can occur through the accumulation of debris leading to the lockage of drainage holes.

DRAINAGE STRATEGY FOR UNITISED SYSTEM ON PLOT F - MANCHESTER

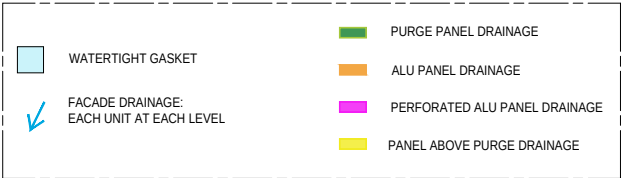
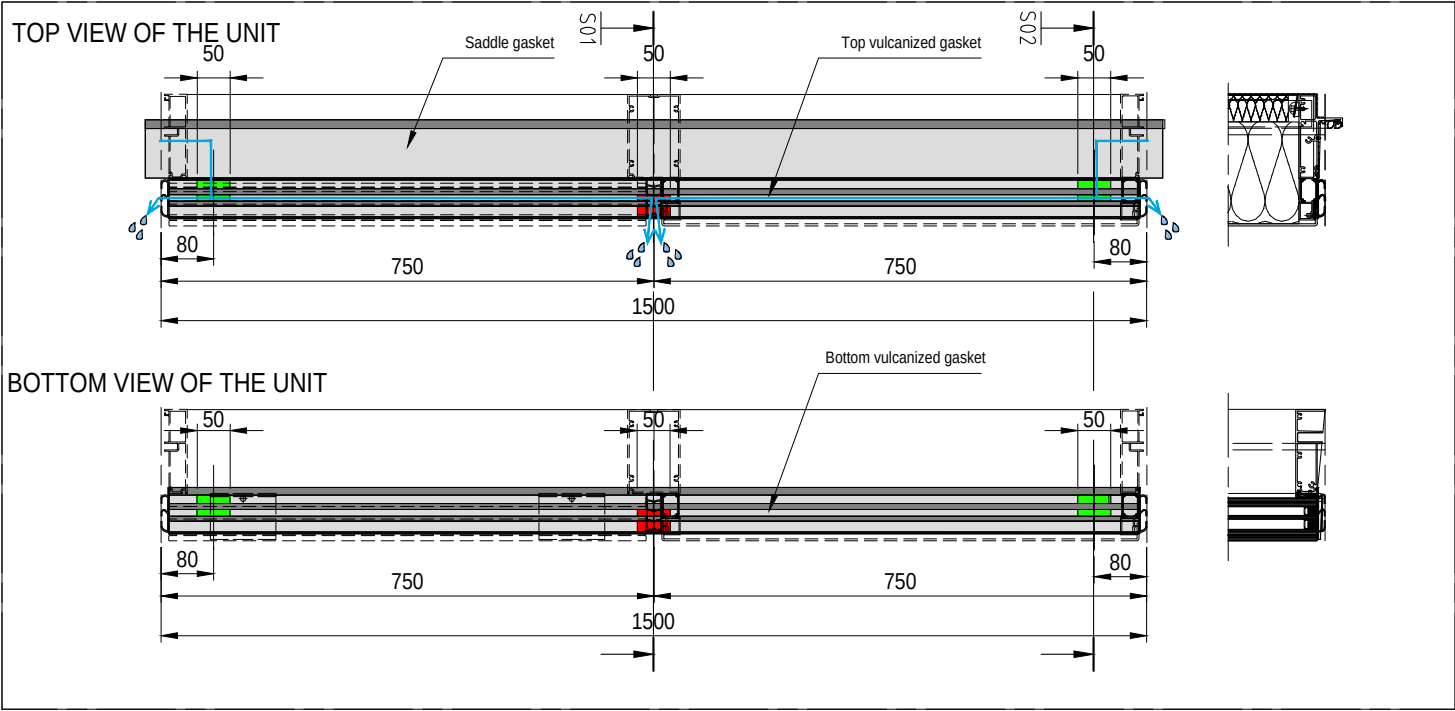
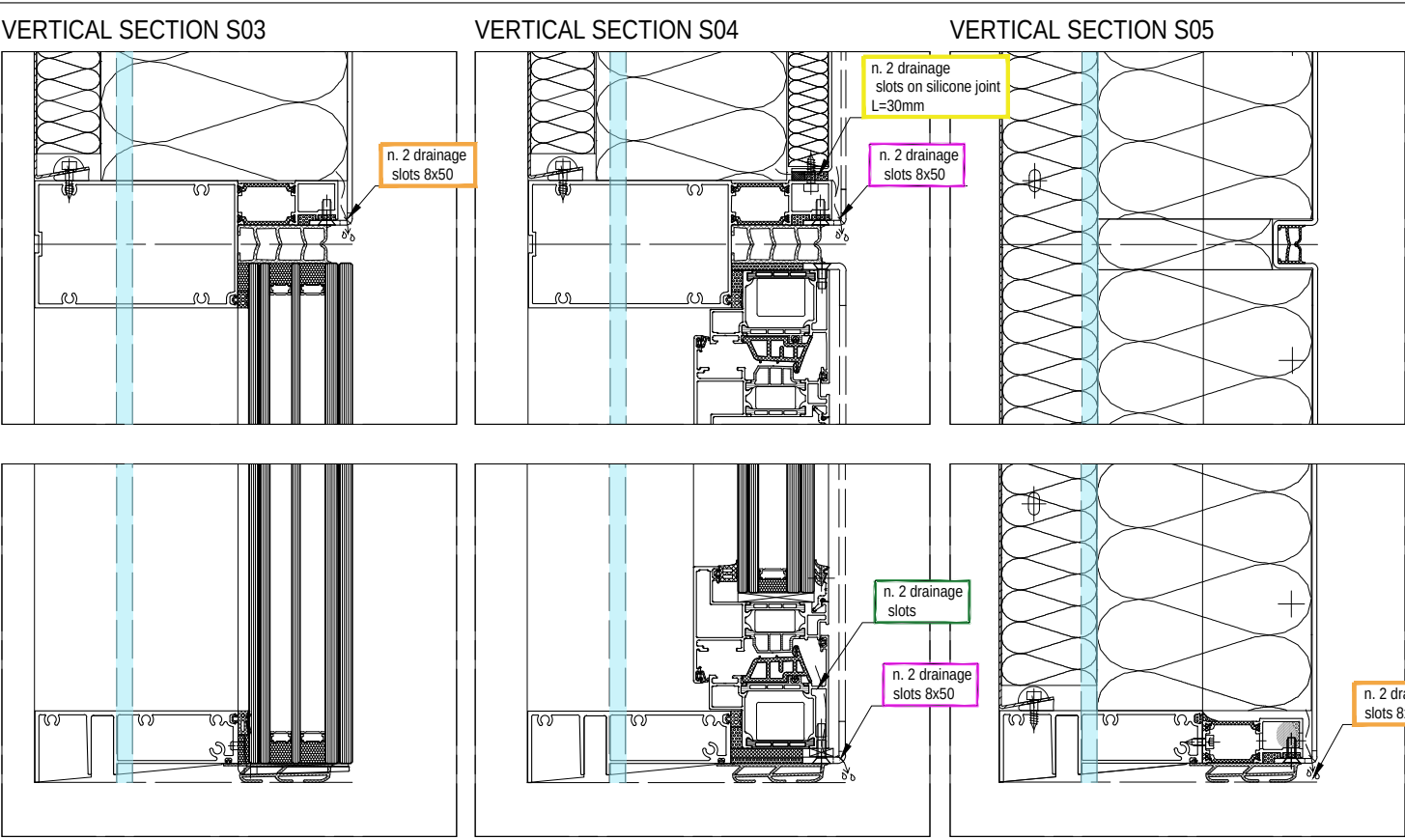
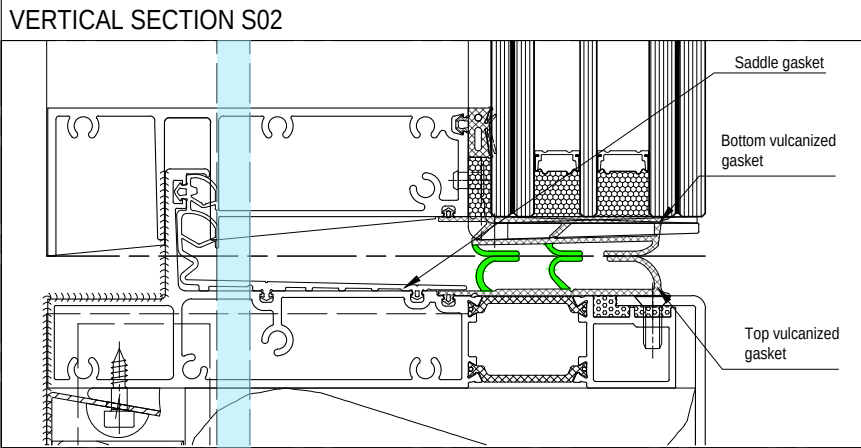
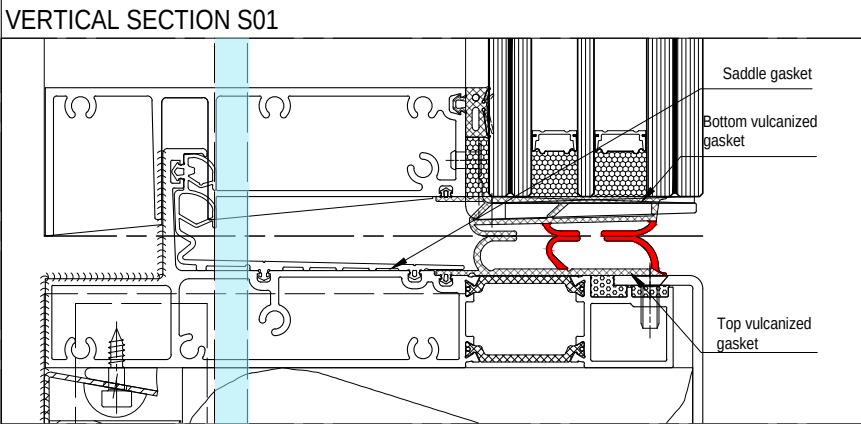
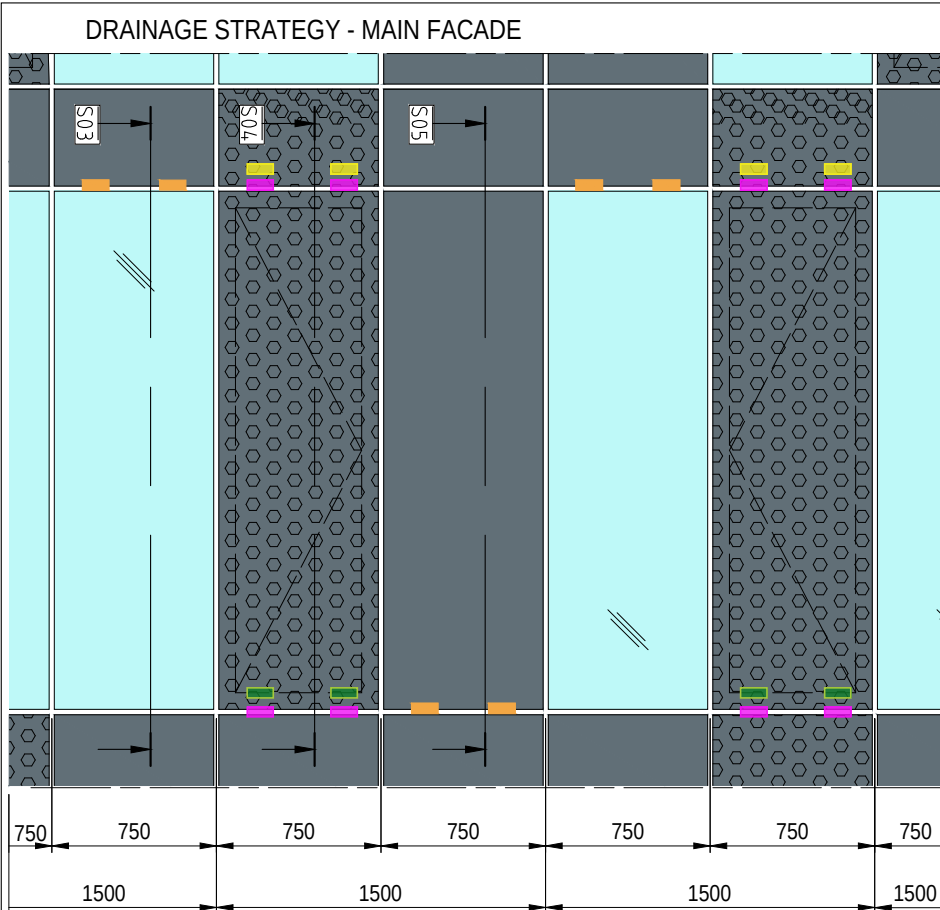
On document Z1-FOC-G251-RP-XX-004 we have clarified the drainage strategy for the unitised system of this project, where on the external metal panels we have introduced No.2 slotted holes at the bottom on each panel (if wider than 500mm) and No.1 slotted hole if wider less than 500mm in order to allow a proper path to drain the water out.

In relation to the type of facade we are talking about (high-rise buildings), where external accessibility of the building sets limits for the control and cleaning of drainage slots, it's therefore necessary to increase the size of the drains, also in view of the high pressures to which the panel is subjected. Based on our experience that Manchester we know that it's one of the most severe area in relation to water quantities and wind pressures.

All buildings built by Focchi in the last years in Manchester have been installed with a slots **designed** to facilitate drainage in extreme conditions.

The TN17 recommend 25x5mm drainage slote as a minimum for the standard buildings with the typical hight but from our experience we know that this dimension causes the surface tension of adhesion of the water film on the aluminum surfaces and for this reason is necessary to double this minimum.

For high rise buildings, pressure and amount of water certainly play against it, and the proposed size 50x8mm incorporate a safety factor to avoid any kind of occlusion.



Project:	Plot F - Great Jackson Street	Rev:	P01	Date:	12-01-2024	Drawn:	Y. OTTAVIANI	Checked by:	S. PAGLIARANI	Issued for:	APPROVAL	Job:	230060	Issue:	P01
Refer to:	Plot F - Great Jackson Street	Rev:		Date:		Drawn:		Checked by:		Issued for:		Job:		Issue:	
Architect:	SIMPSON HAUGH	Rev:		Date:		Drawn:		Checked by:		Issued for:		Job:		Issue:	
Client:	REMAKER BUILD LTD	Rev:		Date:		Drawn:		Checked by:		Issued for:		Job:		Issue:	
Package:	Curtain Wall	Rev:		Date:		Drawn:		Checked by:		Issued for:		Job:		Issue:	

Dwg title: DRAINAGE STRATEGY MAIN FACADE

FOCCHI SINCE 1914

Sample Panel Review

Summary

On the same date and time as the tower visual mock-up, the sample panel for the brickwork was also presented to MCC. In total three sample panels were reviewed, two of which (top right) showed the options that had been reviewed by the design team with regard to mortar colour and pointing options.

The third and final panel (bottom right) shows the design team’s chosen configuration of brick, mortar and pointing. MCC were in agreement that the final panel demonstrated the strongest configuration.

Brick

Lancashire Brick and Tile
BA 004 - Metallic Smooth Blue

Mortar

Flomix FL360
Tarmac Y13

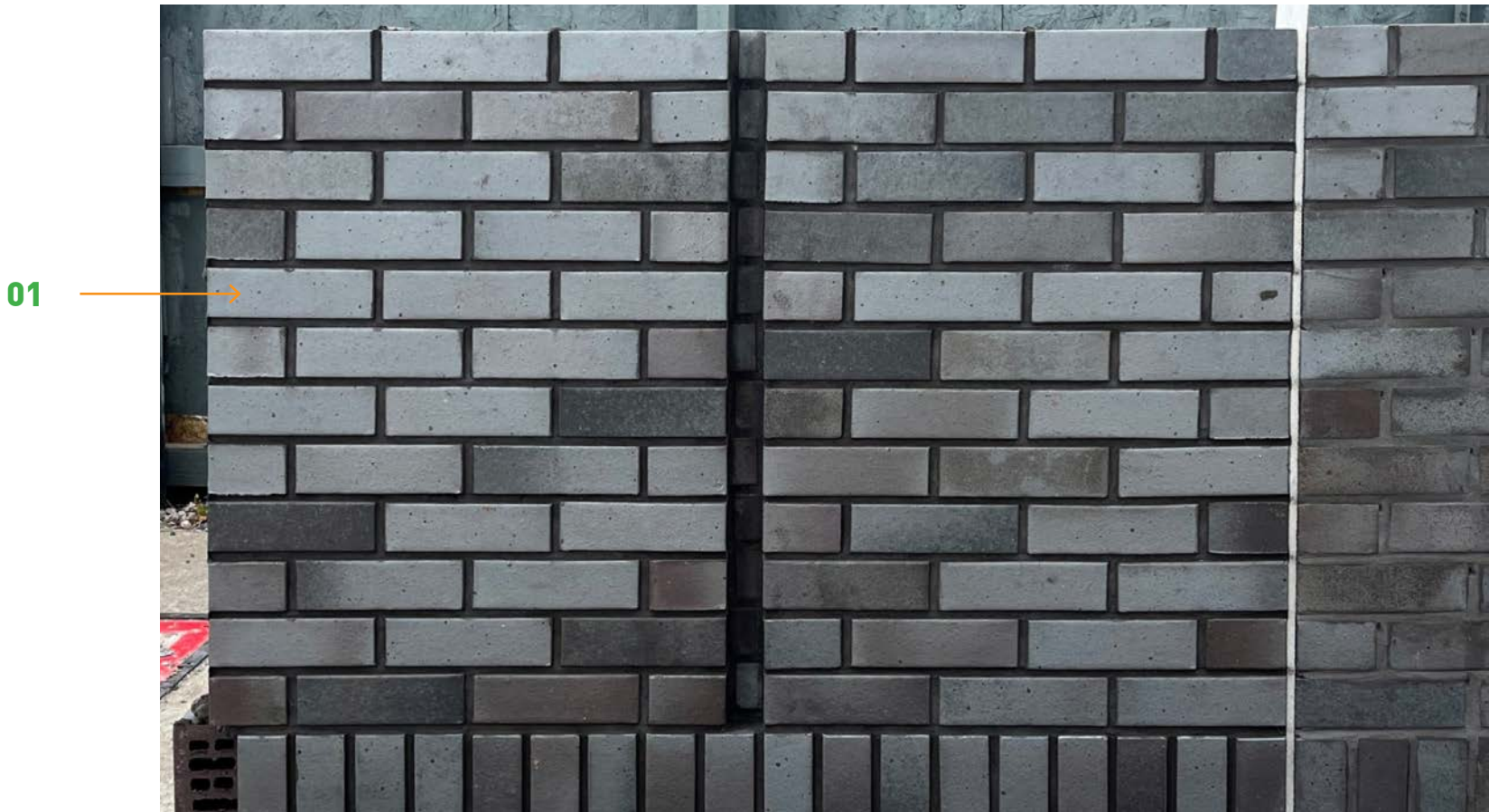
Pointing Options Reviewed

- 01 Recessed (Flomix)
- 01a Recessed (Tarmac)
- 02 Flush (Flomix)
- 02a Flush (Tarmac)
- 03 Weather struck (Flomix)
- 03a Weather struck (Tarmac)

Development sample panels illustrating three different pointing types & two mortar types (brick consistent).



Final sample panel illustrating chosen, brick, pointing type and mortar.



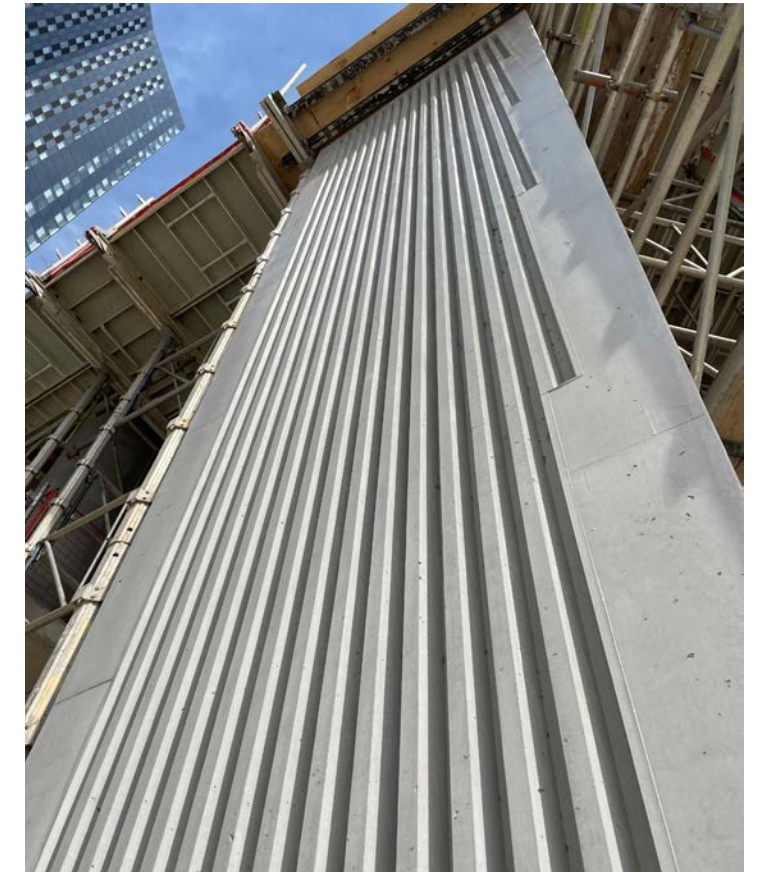
03 - Feature concrete columns

Feature columns

Following the review of the VMU and brick sample panels, the design team took the opportunity to show Manchester City Council the quality of finish that had been achieved on the in-situ feature columns.

The textured elevations of the column have been formed using specialist Reckli formliners factory cut in Germany, these liners are then assembled on site as part of the column formwork. A bespoke lighter mix concrete has been used to allow the columns to appear a very light grey - working within the confines of the high strength concrete requirements.

Care has been taken with the temporary works design for the formwork to allow it to be all fixed externally without any visible holes left within the final poured column. The design team also highlighted that they have been able to design out the intermediate horizontal joint which was collectively viewed as a positive.



Photo's of the feature columns on F2 tower.