22 May 2024

Our Ref: 2998 - St Gabriels
Your Ref: 135278/FO/2022

Dear Sir/Madam,

RE: St Gabriels – Discharge of Drainage Condition 13

We have been commissioned by our client (McLaren) to discharge **Planning Condition 13** associated with the Planning Permission reference 135278/FO/2022.

This specific pre-commencement condition states:

Notwithstanding details submitted, prior to commencement of development (excluding demolition) a scheme for surface water drainage works in accordance with Non-Statutory Technical Standards for Sustainable Drainage Systems (March 2015) or any subsequent replacements national standards and details shall be submitted to and approved in writing by the City Council as Local Planning Authority. The approved drainage system shall be implemented in accordance with the approved detailed design, prior to the use of the building commencing.

The below comment remains outstanding, the purpose of this report is to provide the outstanding information in order to satisfy the planning condition.

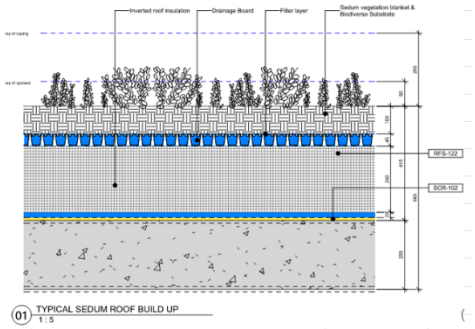
1) *A feasibility assessment and engineering details of the Green / Blue Roof. – The developer has provided the following statement: Buildings Z3 & Z4 have been designed to accommodate a green roof system with maximum weight 272 kg/m2 on the lower roof (level 04) only". However, this is not a feasibility assessment for the surface water volume being retained within the Green Roof.*

To discharge the above point, the developer will need to supply a site-specific feasibility assessment for the Green Roof to ensure the above loading will not affect the proposed buildings structural stability.

Meinhardt response to comments dated 01.05.24:

The lower roof slabs to buildings Z3 & Z4 on the St Gabriel's project, Manchester, have been designed using finite element analysis, to resist an SDL (super dead imposed load) of 3.4 kN/m2 and an imposed load (live load) of 1.5 kN/m2. The SDL includes allowance for a green roof system with maximum weight 272 kg/m2, insulation, waterproof membrane, ceiling & services. The live load allows for PV panels and imposed roof load in accordance with EN 1991-1-1 (Eurocode 1) & national annex. This is outlined in the breakdown below:

Green Roof		SDL	LL
SDL	Insulation and membrane	0.15 KN/m²	
	Green roof system	2.72 KN/m²	
	Services	0.30 KN/m²	
	Ceiling	0.20 KN/m²	
LL	PV		0.90 KN/m²
	Maintenance (Category H)		0.60 KN/m²
TOTAL		3.4 KN/m²	1.5 KN/m²



Loads from the roof are transferred to supporting columns down to pad foundations and into the glacial till geo layer. Stability of the building is provided by RC shear & core walls. All concrete elements have been designed in accordance with with EN 1992-1-1 (Eurocode 2) & respective national annex. Foundations have been designed based on allowable bearing capacity of glacial till on site provided by Geotechnical specialist HGBS.

Full loading plans are attached in Appendix A of this report.

Yours sincerely

Gurdeep Bansal
Associate Director

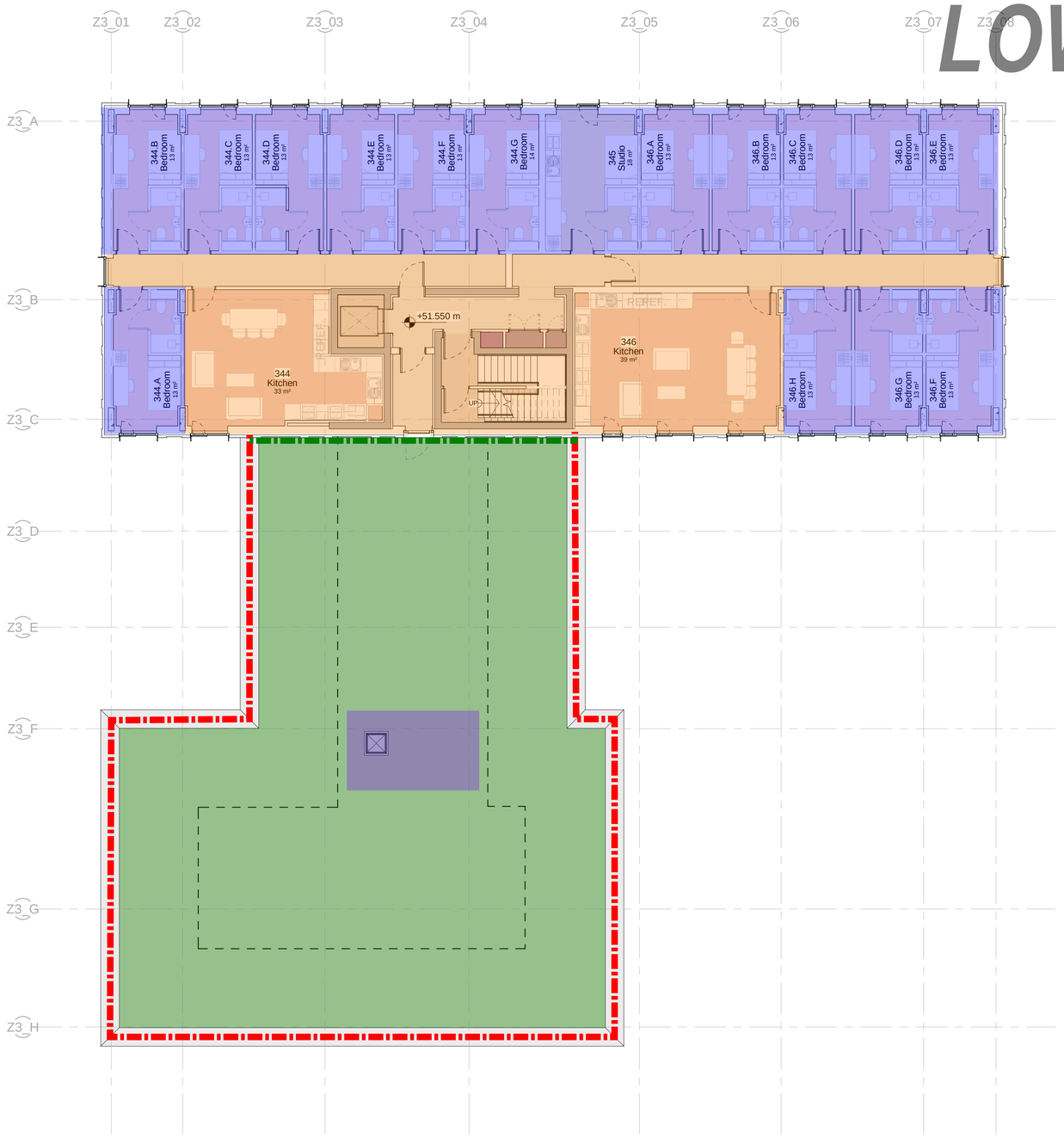
Meinhardt (UK) Ltd, 10 Aldersgate Street, London, EC1A 4HJ
TEL: 020 7831 7969

1. Appendix A – Structural Loading Plans

BUILDING 03

4TH FLOOR / LOWER ROOF

Occupancy	SDL (kN/m2)	LIVE (kN/m2)
Residential	1.2	2.5
Circulation/ Communal	1.2	3.0
Green Roof + PV Panels	3.4	1.5
Ballast + Plant	2.3	7.5
500mm RC Upstand	4 kN/m	
Brick Facade (1-storey)	8 kN/m	



KEY:

- Accessible Studios
- Studio Bedrooms
- Cluster Bedrooms
- Cluster Kitchen
- Plant
- Amenity Space
- Circulation
- Riser
- Smoke Shaft

This drawing is copyright
Do not scale off dimensions.

All dimensions to be checked on site by contractor.

Contractor to report any dimensional discrepancies, errors or omissions prior to commencing on site.

NORTH

Rev	Date	Description
P01	2022-07-08	Planning Issue

Project Title
St Gabriel's Manchester
9 Oxford Place

Status
PLANNING

Drawing Title
Building 03 (West)
General Arrangement
Proposed Fourth Floor Plan

Project No
10349

Scale
1 : 100 @ A

10349-SHP-Z3-A-B5D8-G200-PL-04-001

Rev
P0

INFORMATION

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PROJECT
ST GABRIEL'S

CLIENT
MCLAREN PROPERTY

TITLE
LOADING PLANS

DISCIPLINE	DATE	SCALE @ A3
STRUCTURAL	28/04/2024	N.T.S

DRAWN	DESIGNED	CHECKED	APPROVED
ZP	-	ID	

M1586-MHT-XX-XX-SK-S-000034

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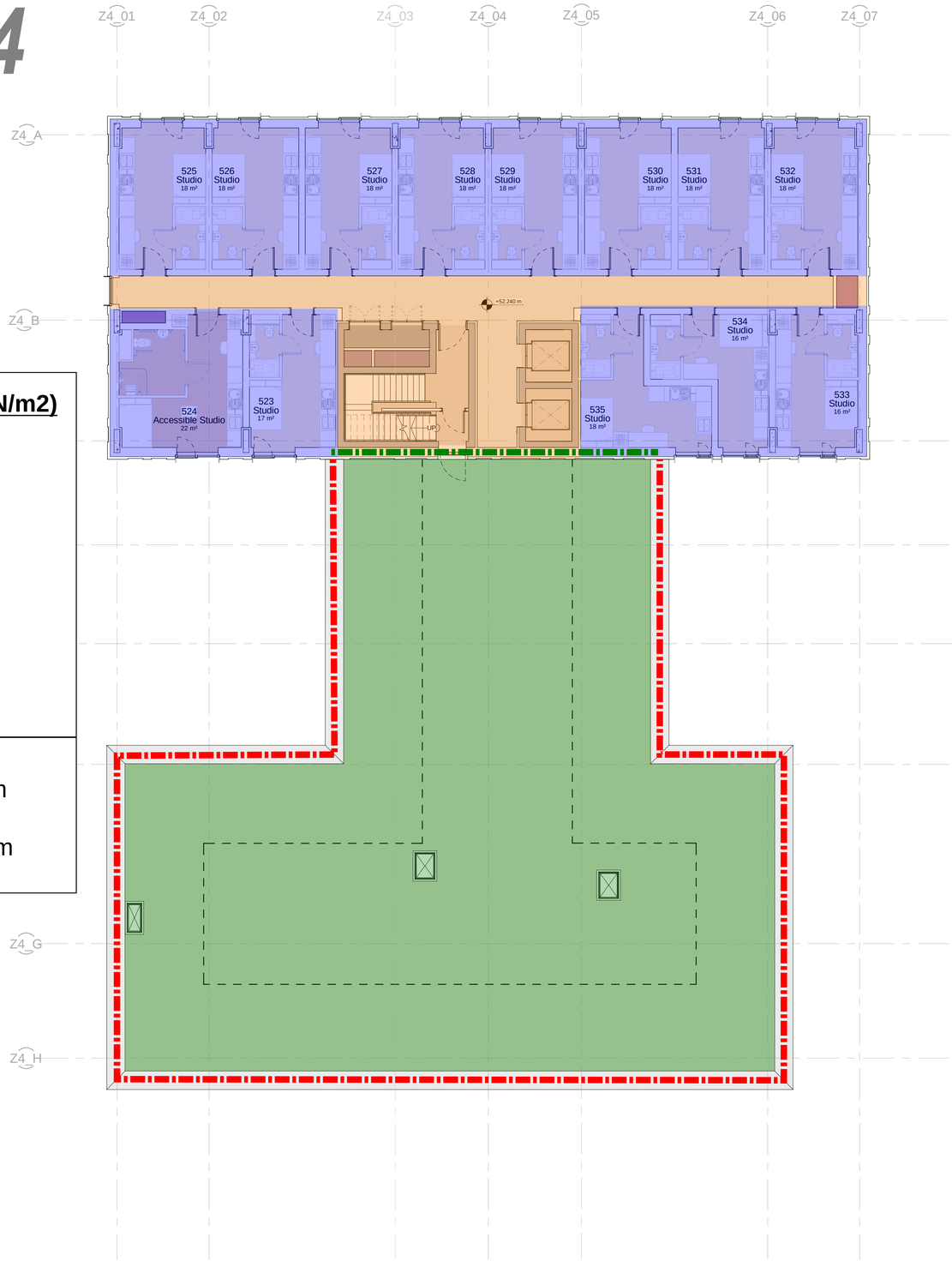
BUILDING 04

4TH FLOOR / LOWER ROOF

Occupancy	SDL (kN/m2)	LIVE (kN/m2)
Residential	1.2	2.5
Circulation/ Communal	1.2	3.0
Green Roof + PV Panels	3.4	1.5

500mm RC Upstand	4 kN/m
Brick Facade (1-storey)	8 kN/m



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KEY:

- Accessible Studios
- Studio Bedrooms
- Cluster Bedrooms
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- Amenity Space
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- Smoke Shaft

NORTH

Rev	Date	Description
P01	2022-07-08	Planning Issue

Project Title
St Gabriel's Manchester
9 Oxford Place

Status
PLANNING

Drawing Title
Building 04 (East)
General Arrangement
Proposed Fourth Floor Plan

Project No
10349

Scale
1 : 100 @ A

10349-SHP-Z4-A-B5D8-G200-PL-04-001 P0

INFORMATION

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PROJECT
ST GABRIEL'S

CLIENT
MCLAREN PROPERTY

TITLE
LOADING PLANS

DISCIPLINE	DATE	SCALE @ A3
STRUCTURAL	28/04/2024	N.T.S

DRAWN	DESIGNED	CHECKED	APPROVED
ZP	-	ID	

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