

TECHNICAL NOTE 002 – MINDEL HOUSE AND BLOOM STREET WAREHOUSE

PROPOSED DRAINAGE STATEMENT

Bloom Street and Mindel House, known collectively as 'Piccadilly Warehouse' stand between Bloom Street and Richmond Street at their junction with Minshull Street in Manchester City Centre



Figure 1 - Site Location

It is proposed to convert both properties in to 80 residential apartments. This document discusses the change to the proposed foul and rainwater discharge as a consequence of this change of use.

The buildings are currently connected to the 450 dia public combined sewer flowing in a south-westerly direction beneath Richmond Street. A below ground utility survey has shown both buildings to be connected to this sewer via a single lateral connection discharging both foul and rainwater drainage.



Tier Consult
7-9 new Wakefield St
Manchester, M1 5NP

The current rainwater drainage allows for free discharge to the public combined sewer via this single lateral connection. As the surface water drainage will be unaffected by the proposed changes (albeit minor relocation of some rainwater down pipes) the proposed discharge will remain as existing. There is no increase in impermeable areas as a result of the development.

A comparison assessment of the previous and proposed foul drainage discharge has been undertaken in accordance with the requirements of BS EN 12056-2:2000 which indicates a current foul discharge rate of 4.2l/s, it should be noted that the number of previous drainage appliances has been taken from information previously submitted to MCC as no evidence of this is extant on site.

Type	Quantity	Discharge Units l/s	Total l/s
Sinks	0	0.6	0
WC	15	2.0	30.0
Basins	18	0.3	5.4
Total			35.4
Frequency Factor			0.7
Max Flow			4.2

Table 1 – Pre-Development Foul Flows

The post-development discharge rate has been estimated as 8.6 l/s as scheduled in table 2. This demonstrates an increase in foul discharge flows as a consequence of the increased number of appliances.

Type	Quantity	Discharge Units l/s	Total l/s
Sinks	80	0.6	48.0
WC	80	1.8	144.0
Basins	80	0.3	24.0
Shower	80	0.4	32.0
Washing machine	80	0.6	48.0
Total			296.0
Frequency Factor			0.5
Max Flow			8.6

Table 2 – Post-Development Foul Flows



TM/24/1381 – Piccadilly Warehouse, Manchester
June 2024

Summary

It is proposed to retain and reuse the current combined single lateral connection from the development, however new foul and surface water gravity drainage will be provided within the building. Foul and surface water drainage is to be provided as separate systems within the building before combining for discharge via the lateral connection.

The surface water discharge is unaltered as a result of the redevelopment and therefore under critical storm conditions the proposed works will have no additional impact on the local drainage system.

The foul water discharge increases from 4.2 l/s to 8.6 l/s due to the increased domestic occupancy. The development however is located in an area of predominantly commercial and leisure usage and therefore the peak discharges from the domestic activities will not be coincident with the peak discharges from the immediate locality. The peak discharge from the development will not occur at peak loading time for the public drainage system and therefore will be less significant than the tabulated increase would infer.

The change of use therefore would have only a minor impact on the surrounding public drainage infrastructure for which there is no practical mitigation.