

8 MINSHULL ST. & 42 BLOOM ST. DRAINAGE STATEMENT

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1 INTRODUCTION

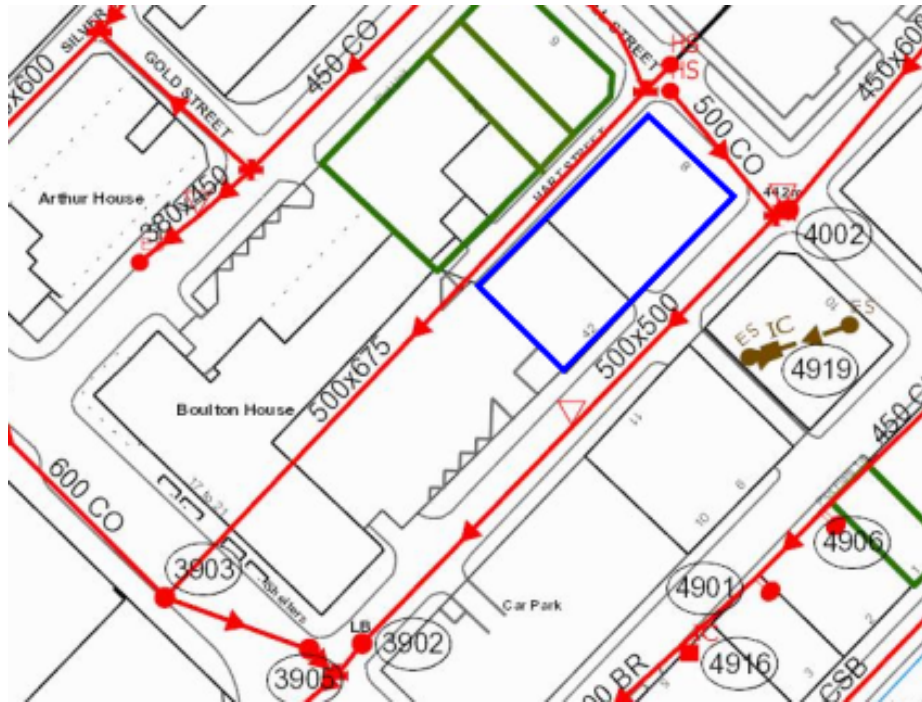
Renaissance have been engaged to provide civil and structural engineering consultancy services in relation to 8 Minshull Street and 42 Bloom Street situated in Manchester city centre. The site location is indicated below.



The two adjoining properties have been in use as a single commercial premises since approximately the 1970s. It is proposed to convert the properties into a residential facility containing 39 apartments. This document outlines the proposed below ground drainage strategy to accommodate the proposed change of use.

2 EXISTING DRAINAGE ARRANGEMENT

It is understood that 8 Minshull Street is connected to the 675x500 public sewer below Hart Street, which flows southwest towards Chorlton Street. The existing connection(s) from 42 Bloom Street are unknown, however it is anticipated that the public sewer below Hart Street serves this building also. Existing connections will be confirmed by CCTV survey. The existing public sewers in the vicinity of the site are indicated below, with the site outlined in blue. It is proposed to use existing connections into the public sewer network.



3 SURFACE WATER & FOUL DISCHARGE

Surface water drainage will be unaffected by the proposed development, except for the proposed introduction of additional rainwater downpipes. No increase in impermeable area will result from the proposed development. Existing and proposed foul drainage discharges are compared below, in accordance with BS EN 12056-2:2000.

Existing

Appliance	Quantity	Discharge Units (l/s)	Total (l/s)
WC	32	2.0	64
Wash basin	25	0.5	12.5
Kitchen sink	2	0.8	1.6
Single urinal w/ cistern	2	0.8	1.6
Total			79.7
Frequency factor			0.7
Flowrate			6.25

Proposed

Appliance	Quantity	Discharge Units (l/s)	Total (l/s)
WC	62	2.0	124
Wash basin	62	0.5	31
Kitchen sink	39	0.8	31.2
Bath	40	0.8	32
Shower	21	0.8	16.8
Floor gully DN70	2	1.5	3
Total			238
Frequency factor			0.5
Flowrate			7.71

The numbers shown for the proposed development are based on the latest available architectural drawings. For the existing condition, a frequency factor of 0.7 has been used to reflect the majority of the appliances being within the part of the building previously used as a nightclub.

4 SUMMARY

It is proposed to reuse the existing combined sewer connections from 8 Minshull Street and 42 Bloom Street, with surface and foul water combined on site prior to discharge into the public sewer network.

Surface water flows are not affected by the proposed development, as there is no change to the roof area and no change to impermeable areas on the site.

With the proposed development, foul water flowrate into the public sewer would increase from 6.25 l/s to 7.71 l/s, representing an increase of 1.46 l/s. In itself, such an increase would have only a minor impact on the existing public sewer network. However, the impact will be further mitigated due to the surrounding buildings primarily accommodating commercial and office functions which will have different peak discharge regimes to the proposed residential development.

The proposed change of use for these buildings will therefore have a very minor impact on the public sewer network, and no further mitigation measures are practical.