

 T J Booth Associates. Consulting Engineers 20A Eastgate St, Rochdale OL16 1DH	Project Salt Separation Services - Units 6 & 7, Fletcher Street,				Job Ref. calc-tjba-SSS-units 6&7 fletcher st-DSR-170925	
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History.

Revision	Date	Reason
0	Oct 2025	Original.

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Background.

To provide a drainage strategy for the redevelopment of Units 6 & 7, at Salt Separation Sevices, in accordance with UK SUDS guidance & national drainage heirarchy.

The Application Site comprises an existing mill building, part of a lager complex, and nestled within a larger collection of mill buildings/extensions.

The Location Plan in the Appendix shows the entire Salt Separation Services ownership boundary (BLUE), and the proposed building to be redeveloped outlined (RED).

The only development associated with the planning approval certificate, and considered within the remit of this drainage assessment is concerned with the outline (RED). The rest of the ownership site is to remain as present and will be operational during the development life cycle.

The proposal is for the demolition of the current building, and the construction of a replacement purpose-built fabrication building.

The current building is a structure that was originally built somewhere between the 1850s-1890s.

The site is surrounded by:

- North & west: other mill buildings.
- East: car park.
- South: RMBC highway.

Existing Site Plan.

The site comprises an existing mill building, and a thin external strip of land between the building and the highway.	
Site Area	550 sqm
Mill building roof area (impermeable)	450 sqm
Car park/hardstanding area (impermeable)	100 sqm

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Proposed Site Plan.

The proposal is for the demolition and replacement building occupying the entrie site footprint.

Site Area 550 sqm

Mill building roof area (impermeable) 550 sqm

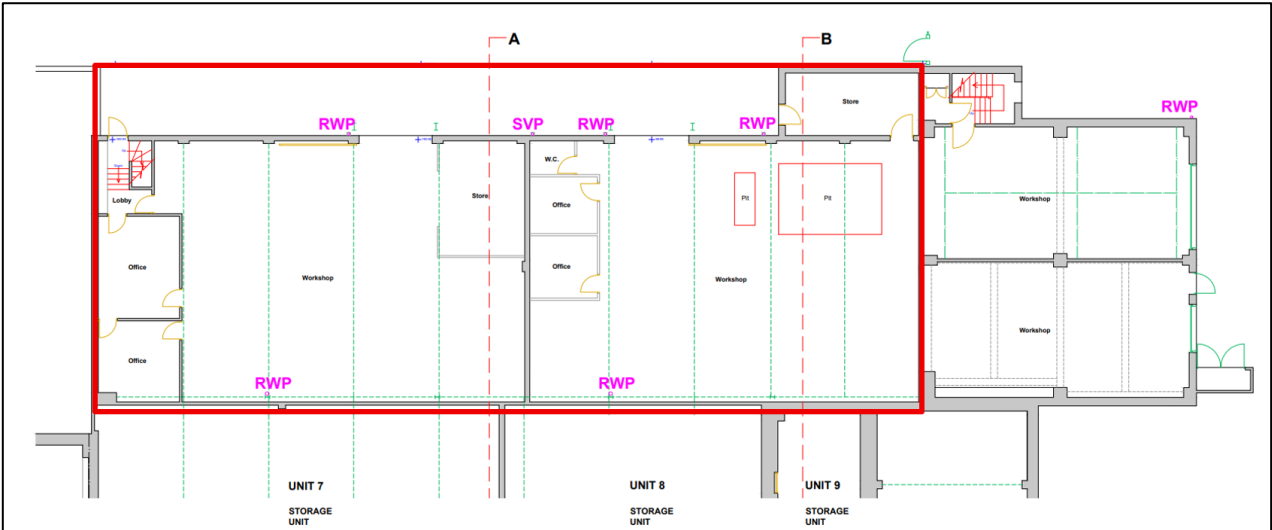
Car park/hardstanding area (impermeable) 0 sqm

The impermeable area of the site will not change due to development.

Surface Water.

Existing Scenario.

The exising building comprises rain water pipes both internal and external to gullies, and soil vent pipes as per the plan below (area enclosed red is the development area):



DESIGN RAINFALL 1YR (THE WALLINGFORD PROCEDURE)

DESIGN RAINFALL

In accordance with the Wallingford Procedure

Tedds calculation version 2.0.02

Design rainfall intensity

Location of catchment area

Storm duration

Return period

Ratio 60 min to 2 day rainfall of 5 yr return period

5-year return period rainfall of 60 minutes duration

Increase of rainfall intensity due to global warming

Factor Z1 (Wallingford procedure)

Rainfall for 30min storm with 5 year return period

Factor Z2 (Wallingford procedure)

Rainfall for 30min storm with 1 year return period

Design rainfall intensity

Other

D = 30 min

Period = 1 yr

r = 0.300

M5_60min = 20.0 mm

pclimate = 0 %

Z1 = 0.77

M5_30min_i = Z1 ´ M5_60min = 15.4 mm

Z2 = 0.62

M1_30min = Z2 ´ M5_30min_i = 9.6 mm

I_{max} = M1_30min / D = 19.1 mm/hr

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DESIGN RAINFALL 30YR (THE WALLINGFORD PROCEDURE)

DESIGN RAINFALL

In accordance with the Wallingford Procedure

Tedds calculation version 2.0.02

Design rainfall intensity

Location of catchment area

Storm duration

Return period

Ratio 60 min to 2 day rainfall of 5 yr return period

5-year return period rainfall of 60 minutes duration

Increase of rainfall intensity due to global warming

Factor Z1 (Wallingford procedure)

Rainfall for 30min storm with 5 year return period

Factor Z2 (Wallingford procedure)

Rainfall for 30min storm with 30 year return period

Design rainfall intensity

Other

D = **30** min

Period = **30** yr

r = **0.300**

M5_60min = **20.0** mm

p_{climate} = **0** %

Z1 = **0.77**

M5_30min_i = Z1 ´ M5_60min = **15.4** mm

Z2 = **1.53**

M30_30min = Z2 ´ M5_30min_i = **23.5** mm

I_{max} = M30_30min / D = **47.1** mm/hr

DESIGN RAINFALL 100YR (THE WALLINGFORD PROCEDURE)

DESIGN RAINFALL

In accordance with the Wallingford Procedure

Tedds calculation version 2.0.02

Design rainfall intensity

Location of catchment area

Storm duration

Return period

Ratio 60 min to 2 day rainfall of 5 yr return period

5-year return period rainfall of 60 minutes duration

Increase of rainfall intensity due to global warming

Factor Z1 (Wallingford procedure)

Rainfall for 30min storm with 5 year return period

Factor Z2 (Wallingford procedure)

Rainfall for 30min storm with 100 year return period

Design rainfall intensity

Other

D = **30** min

Period = **100** yr

r = **0.300**

M5_60min = **20.0** mm

p_{climate} = **0** %

Z1 = **0.77**

M5_30min_i = Z1 ´ M5_60min = **15.4** mm

Z2 = **1.99**

M100_30min = Z2 ´ M5_30min_i = **30.7** mm

I_{max} = M100_30min / D = **61.4** mm/hr

Proposed Scenario.

Drainage Hierarchy.

Infiltration

The proposal is for a replacement fabrication workshop, and will encompass the entire site footprint.

The only external space adjacent the site is the public highway.

There will be no external space suitable for infiltration.

Watercourse

There are no watercourses adjacent the site.

Sewer

It is proposed to reconnect proposed rainwater pipes to the existing connections.

The proposed system will not be a source of additional runoff, and therefore no additional risk or reliance is placed on the public system.

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Maintenance Plan.

All drainage & maintenance responsibilities to remain private.

Foul Water.

It is proposed to reconnect proposed soil & vent pipes to the existing foul connections.

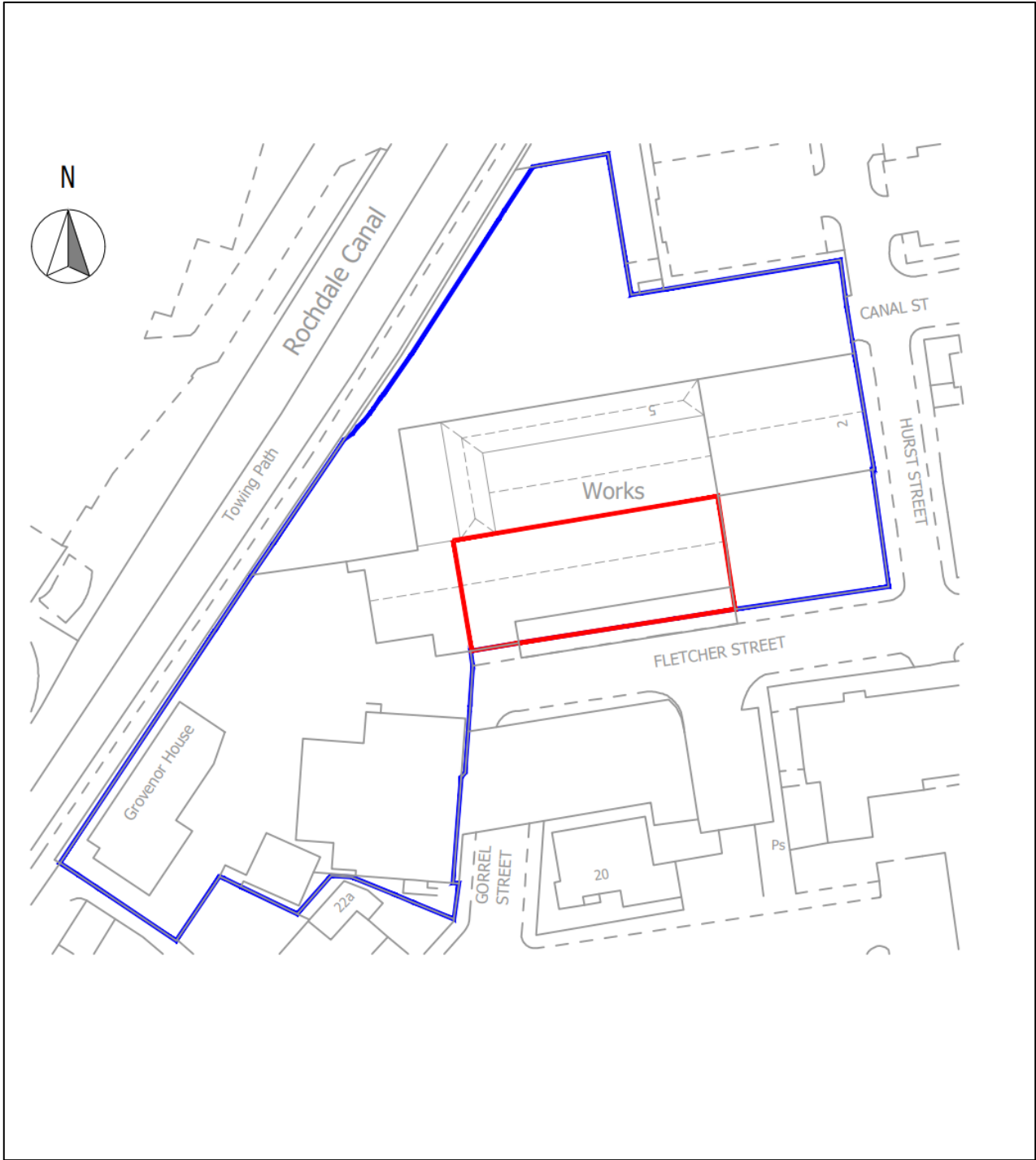
Conclusion.

This report should be submitted to the Rochdale MBC Planning Department for approval.

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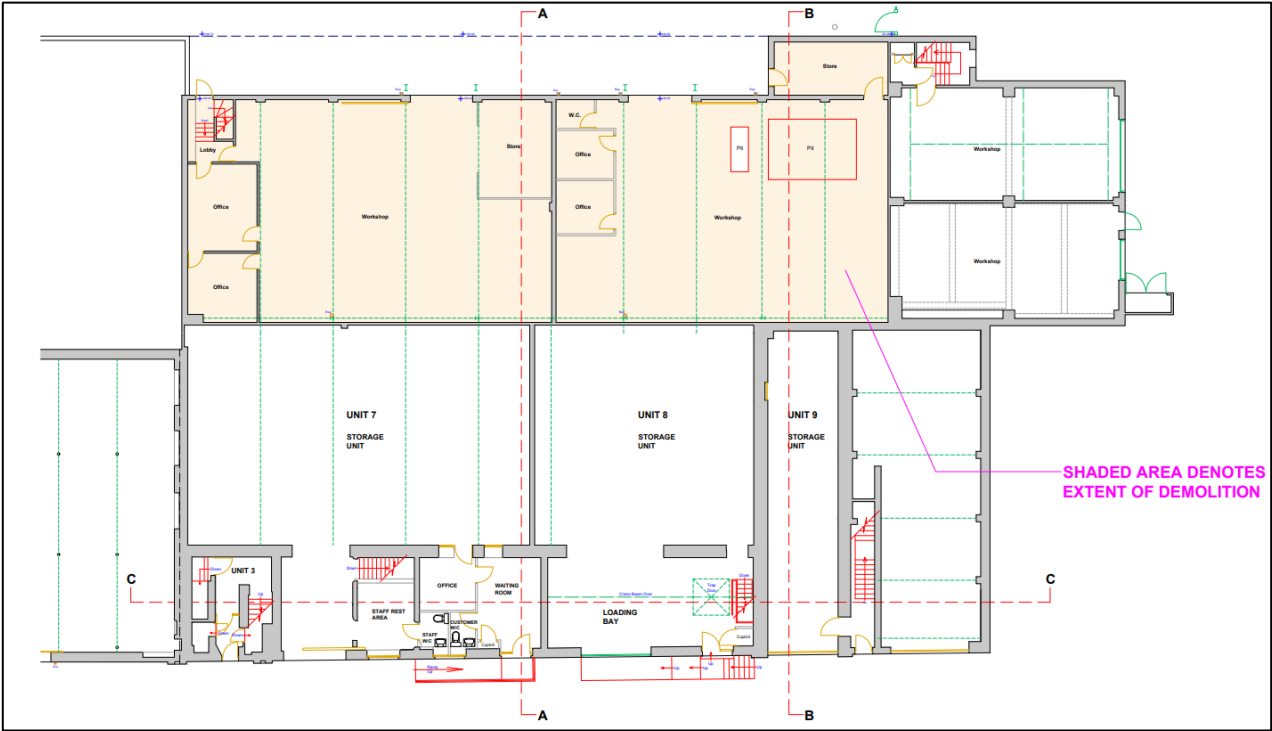
Appendix.

LOCATION PLAN.

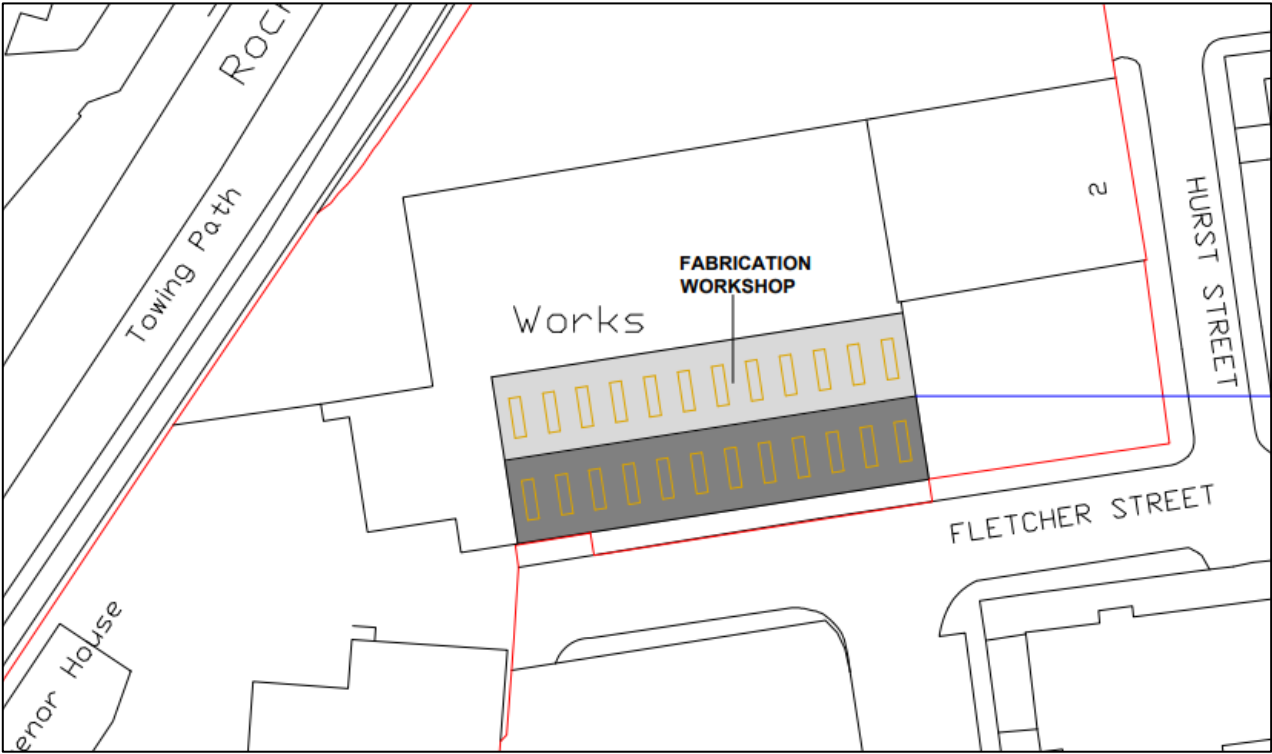


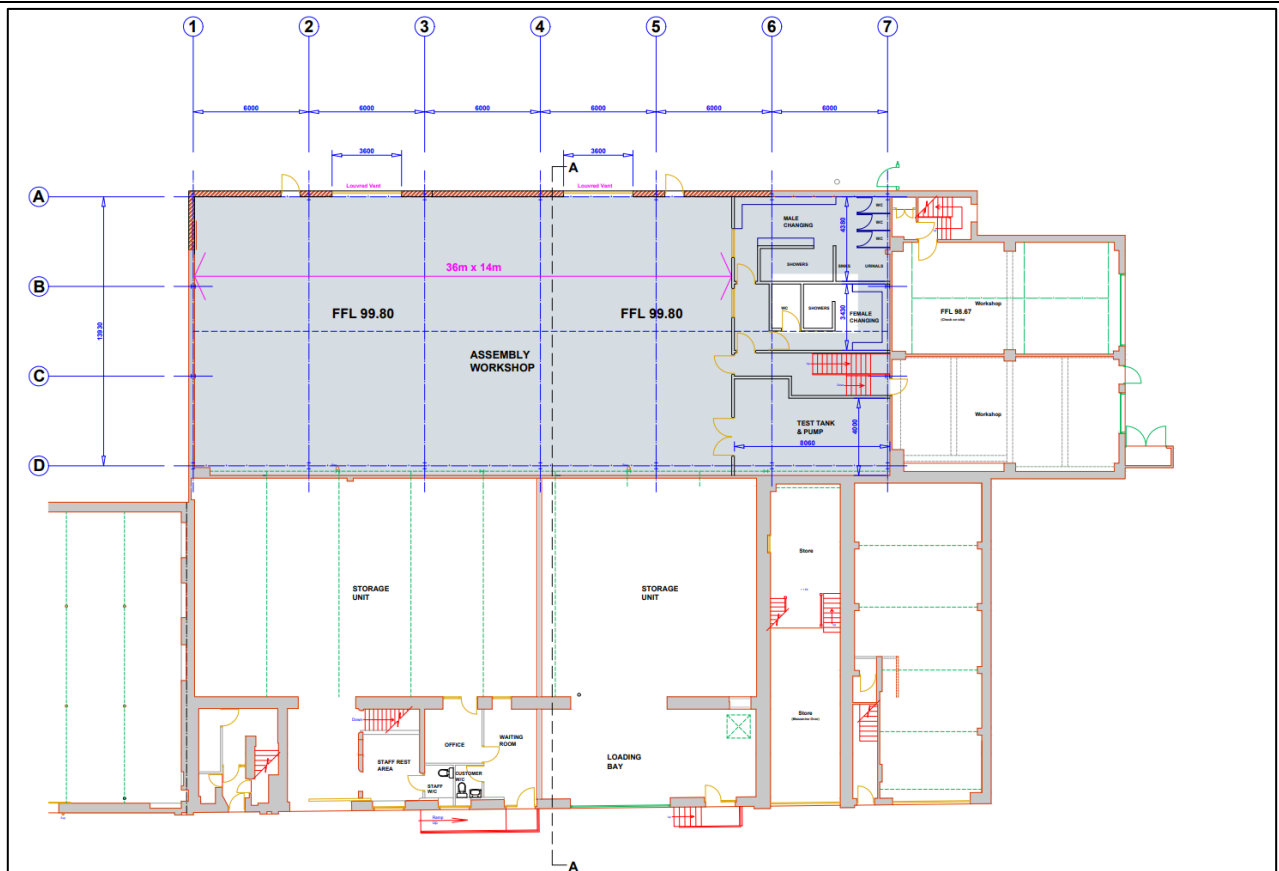
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EXISTING PLANS.



PROPOSED PLANS.







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UNITED UTILITIES SEWER PLANS.

