

Appendix D

Drawing Scale Bar			
Drawing scale	Line length	Drawing scale	Line length
1:5 = 0.25 metres		1:200 = 10.0 metres	
1:10 = 0.5 metres		1:250 = 12.5 metres	
1:20 = 1.0 metres		1:500 = 25.0 metres	
1:25 = 1.25 metres		1:1000 = 50.0 metres	
1:50 = 2.5 metres		1:1250 = 62.5 metres	
1:100 = 5.0 metres		1:2500 = 125 metres	
Measure length of line above for checking of scale			

GENERAL NOTES

- All dimensions are in millimetres and levels in m AOD unless stated otherwise.
- Do not scale. If in any doubt, consult Engineer.
- Read in conjunction with the architects and engineers schedule drawings.
- Check inverts and sizes of existing pipes prior to the commencement of any work. Report any discrepancies to the engineer and await instructions.
- The location of services is shown as indicative. This drawing should be read in conjunction with the utilities drawings. No warranty to their accuracy can be given. The contractor shall take all necessary measures to satisfy himself as to the location of the existing services and connection points. Excavation should be undertaken in compliance with HSG47.
- Concrete structures design sulphate class and ACEC concrete class unknown.
- Pipework to be 110mm Thermoplastics U-PVC (Polypipe or similar) installed at levels marked on this drawing UNO. Pipe bedding should be class Z in pipes within 1.5m of the building or shallower than 700mm below ground level. For all other areas the pipe bedding should be class S.
- Joints and fittings for gravity sewers shall comply with the relevant provisions of BS EN 1401-1, BS EN 1852 and BS EN 12666-1. Pipes shall have a limit of 6% deformation. Pipes shall be SN8 ring stiffness and stamped accordingly. Pipe sections shall not be longer than 3m.
- Plastic chambers and rings, including demarcation chambers, shall comply with BS EN 3598-1 or BS EN 13598-2 as appropriate.
- Inspection chamber covers and frames shall comply with the relevant provisions of BS EN 124 and should be double sealed.
- All inspection chamber covers shall be the non-ventilating type and shall have closed keyways.
- Testing of pipelines should be as follows:
Gravity Pipework: Air pipe testing. Pipework should withstand a pressure of 100mm water gauge and this should not fall by more than 25mm in a 5minute period. However where traps or gullies are connected they should withstand a pressure of 50mm water gauge and this should not fall by more than 12mm in a 5minute period. It is recommended that pipework installations are tested in sections rather than waiting to complete in one operation.
- Manhole covers to be set square to the building. Covers of existing manholes to be adjusted to match final ground levels.
- Granular Bedding for pipes shall be constructed by spreading and compacting granular bedding material over the full width of the pipe trench. After the pipes have been laid, additional granular material shall, if required, be placed and compacted equally on each side of the pipes and, where practicable, this shall be done in sequence with the removal of the trench supports.

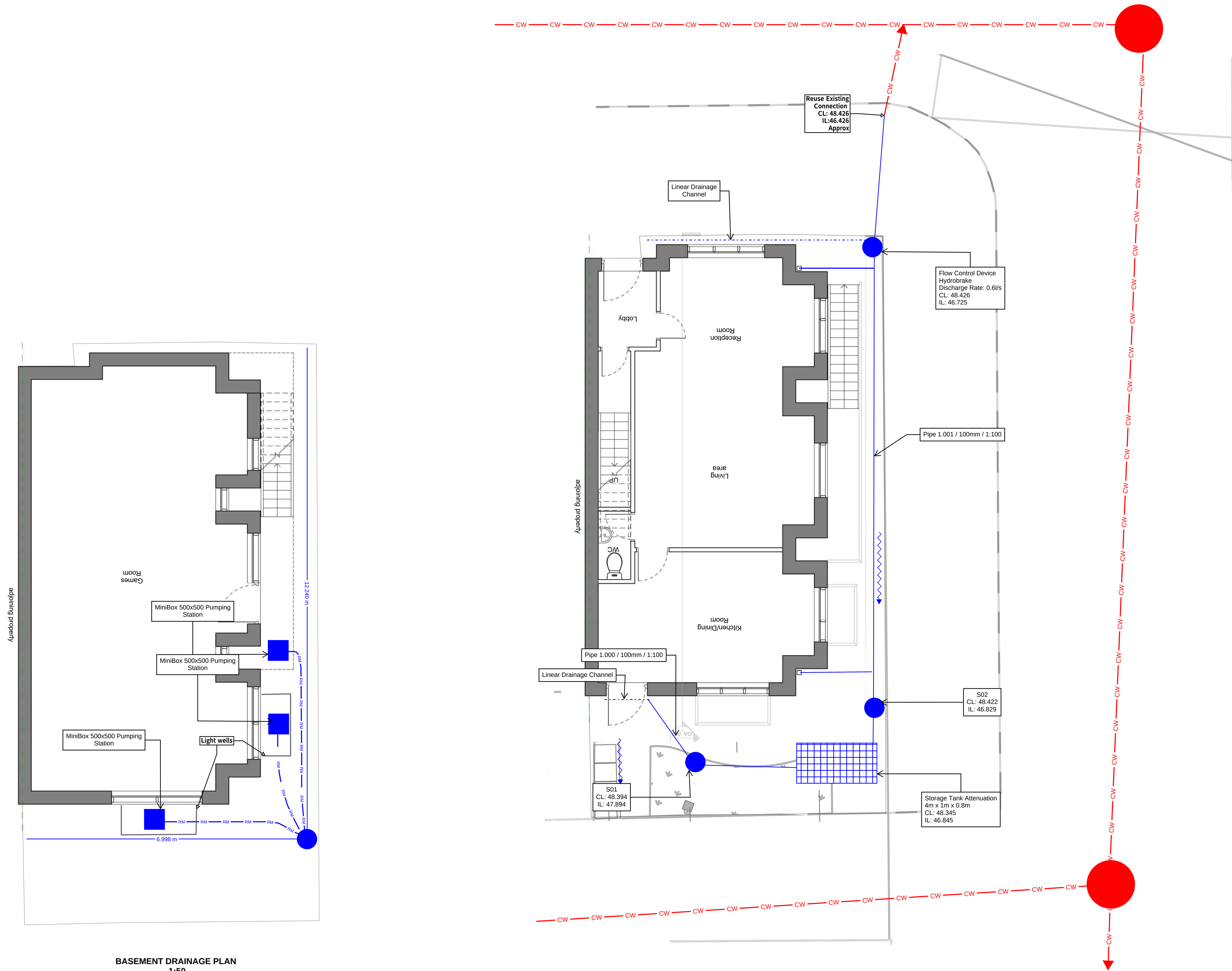
2	Updated Design	05.01.2024	MM	ARD
Rev	Details	Date	By	Chd

Drawing Status: **PRELIMINARY**



Client:
Project:
22 Honor Street, Manchester, M13 0WY
Drawing:
Proposed Drainage Strategy

Print Size: **A1** Scale: **1:50** Project No: **0412** Drawing No: **003** Revision: **P2**



BASEMENT DRAINAGE PLAN
1:50

GROUND FLOOR DRAINAGE PLAN
1:50

KEY

- Proposed Surface Water Sewer Pipe
- Exceedance Flows
- Linear Drainage Channel
- Silt Trap
- Existing Combined Sewer Pipe

Typical Section in areas subject to vehicle loading

Sited in domestic driveways or footways

Sited in private garden - No loading

Notes:

1. Refer to drawing 8193 for base layouts.

Chamber Type 3 Base Layouts

NOTES:

1. Permeable modular storage cell with 95% minimum void ratio. Ultimate compressive strength of 400kN/m² minimum. Resistant to chemicals likely to be found in rain water and durability of a minimum of 40 years.
2. Dimensions as applicable to the manufacturers recommendations for given storage requirement UNO.
3. Air Vents should be provided as per suppliers recommendations
4. See GA drgs for pipe sizes and layout and IL, ILoS, ToS, GL levels.

Minimum Dimensions of Concrete Surround

Load Class		A15	B125	C250	D400*	F900
Minimum	X	100	150	150	250	300
Dimensions (mm)	Y	Full Channel Height (Less Y2 where necessary)				
	Z	100	150	150	250	300
Maximum	Y ₂ ⁺	35	35	35	35	35
Dimensions (mm)	Y ₃	100	60	60	60	35

8341 - Linear Drainage Channel Detail (Steel)

NOTE:

1. Refer to GA for manifold size and Hydrobrake reference number
2. Hydrobrake to be installed as per supplier's recommendations

Flow Control Device Chamber- Hydrobrake

NOTES:

1. This details shows the standard generic arrangement.
2. The pipe and connector details will be different for each manufacturer of the components. They are to be installed in accordance with the manufacturers recommendations.

8250 - External Rainwater (High Level)

PLAN VIEW

SECTION VIEW

NOTES:

1. The vertical angle between the connecting pipe and the horizontal should be greater than 0° and not more than 60°.
2. Where the connection is being made to a sewer with a nominal internal diameter of 300 mm or less, connections should be made using 45° angle, or 90° angle, curved square junctions.
3. Connections made with junction fittings should be made by cutting the existing pipe, inserting the junction fitting and jointing with flexible repair couplings or slip couplers.

Lateral Connection to private sewer

Pipe Bedding Detail Type Z

Pipe Bedding Detail Type S

Cross-Sectional View of Sewer

Plan View of Sewer

NOTES:

1. The vertical angle between the connecting pipe and the horizontal should be greater than 0° and not more than 60°;
2. Where the connection is being made to a sewer with a nominal internal diameter of 300 mm or less, connections should be made using 45° angle, or 90° angle, curved square junctions;
3. Connections made with joining fittings should be made by cutting the existing pipe, inserting the junction fitting and joining with flexible repair couplings or slip couplers;
4. Where the connection is being made to a sewer with a nominal internal diameter greater than 300 mm:
 - a) Where the diameter of the connecting pipe is greater than half the diameter of the sewer, the connection of an access point should be constructed;
 - or
 - b) Where the diameter of the connecting pipe is less than or equal to half the diameter of the sewer, then the connection should be made using a preformed saddle fitting.

Lateral Connection to public sewer

External Rodding Eye Detail

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GENERAL NOTES

Drawing Status:

PRELIMINARY



Client:

Project:

22 Honor Street, Manchester, M13 0WY

Drawing

Standard Details

Print Size:	Scale:	Project No:	Drawing No:	Revision:
A1	NTS	0412	006	P2