



Proposed Development –

Stakehill Industrial Estate

Middleton

Manchester

Drainage Strategy

Project No. 1987

October 2025

Registered Office: Newstead House, Pelham Road, Nottingham, NG5 1AP

Tel: 07753 168226 - **Email:** info@nc29.co.uk - **Web:** www.nc29.co.uk

Directors: C. Cook FIHE IEng and N. Cook BA (Hons)

Registered in England. Registration Number: 11443830 V.A.T. Registration Number: 302 2744 45

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Drainage Strategy Report

Stakehill Industrial Estate, Middleton, Manchester

Introduction

This drainage strategy has been developed as part of the planning application.

This report is to accompany NC29 Ltd drawings 1987-001 (Proposed Drainage Layout) and 1987-002 (Drainage Details), and its purpose is to support and explain the methodology behind the drainage strategy for the site.

The following sections describes in detail the methods and assumptions behind the drainage strategy.

Site Description

The site is an existing industrial unit located off Bentley Avenue, Middleton. The centre of the site is located at approximately SD 88682 08334.

Development Proposals

The proposals are for the extension and alterations to Unit 32 Stakehill Industrial Unit, Middleton, Manchester, M24 2RW.

Surface Water Drainage

The proposed surface water drainage will be limited to serve the proposed extension and will utilise the existing surface water drainage serving the site.

A CCTV survey of the existing drainage site drainage has been undertaken, included as **Appendix A**, which indicates a separate surface water system that is likely to discharge into a surface water sewer.

The existing site is almost entirely impermeable, consisting of roof area and hard landscaping to car park or access road. The proposed extension and alterations will not increase impermeable area, as the proposed extension is located over existing hard landscaping and the proposed demolition works will be reinstated with hard landscaping.

Roof water from the proposed extension will be collected via traditional rainwater goods, from which the downpipes will discharge into the existing surface water drainage.

Foul Water Drainage

The CCTV survey of the existing drainage indicates that foul water discharges to a combined drainage network, although there is a separate surface water network so it may be the case that the existing combined network is a separate foul water network.

The existing foul water drainage network discharges to a combined sewer to the south of the site.

The proposed extension and alterations will not require alterations to the existing foul water network and it is not anticipated that foul flows will be increased.

Maintenance

It is crucial that the elements mentioned in the drainage elements and water quality are maintained to a sufficient standard to ensure that the devices can still function. The responsibility for maintaining the proposed drainage network will be the site operator.

Drainage Component	Required Action	Typical Frequency
Pipework and chambers	Stabilise adjacent areas	As required
	Remove weeds	As required
	Clear any poor performing structures	As required
	Inspect all structures for poor operation	Three monthly, 48 hours after large storms
	Monitor inspection chambers. Inspect silt accumulation rates and determine silt clearance frequencies.	Annually

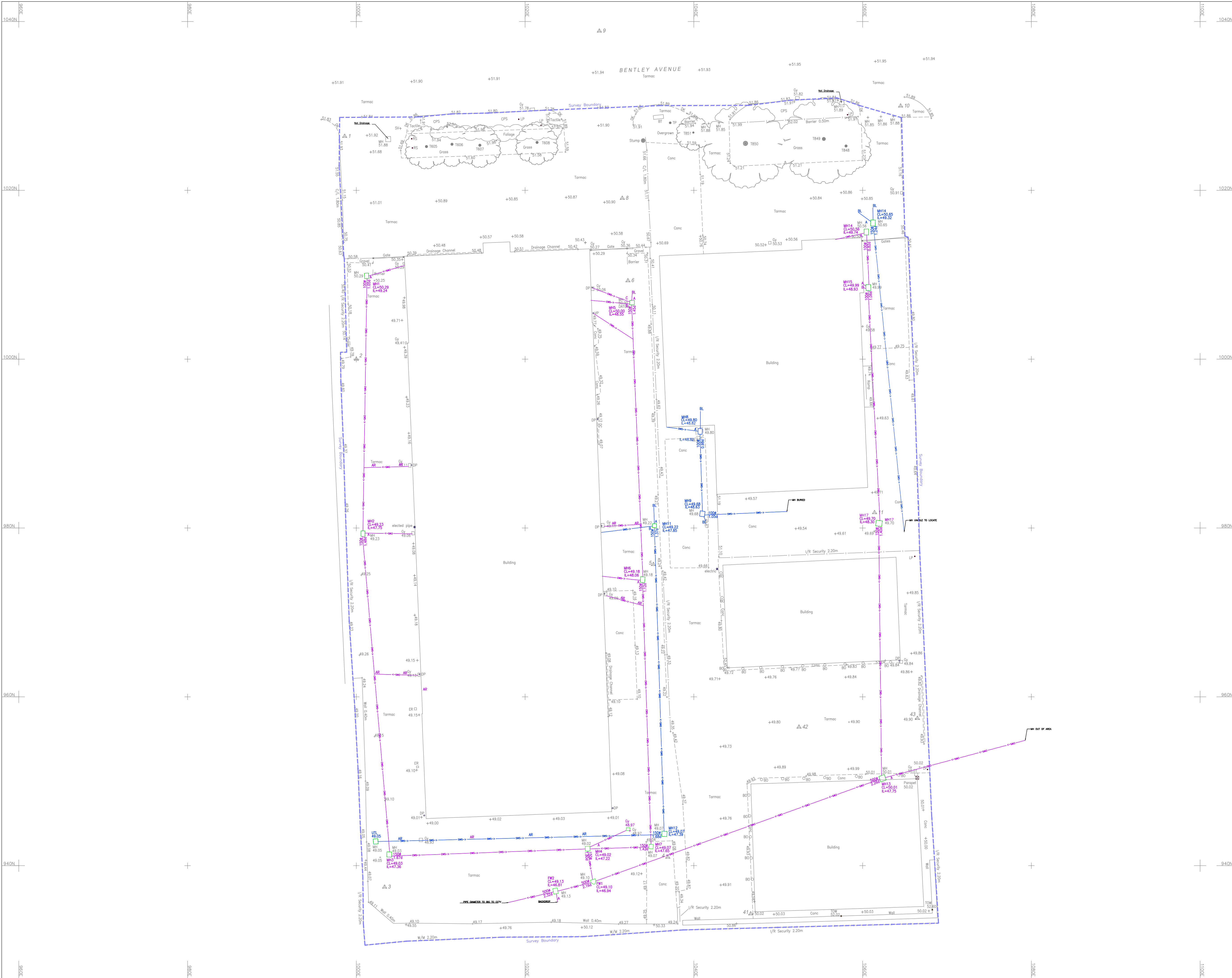
Conclusion

- This drainage strategy document demonstrates that the site is drained appropriately.
- The proposals do not increase the risk of flooding and are therefore compatible with the requirements of NPPF.
- A proposed drainage layout can be found on NC29 Ltd drawing 1987-001.



Appendices

Appendix A – CCTV Survey

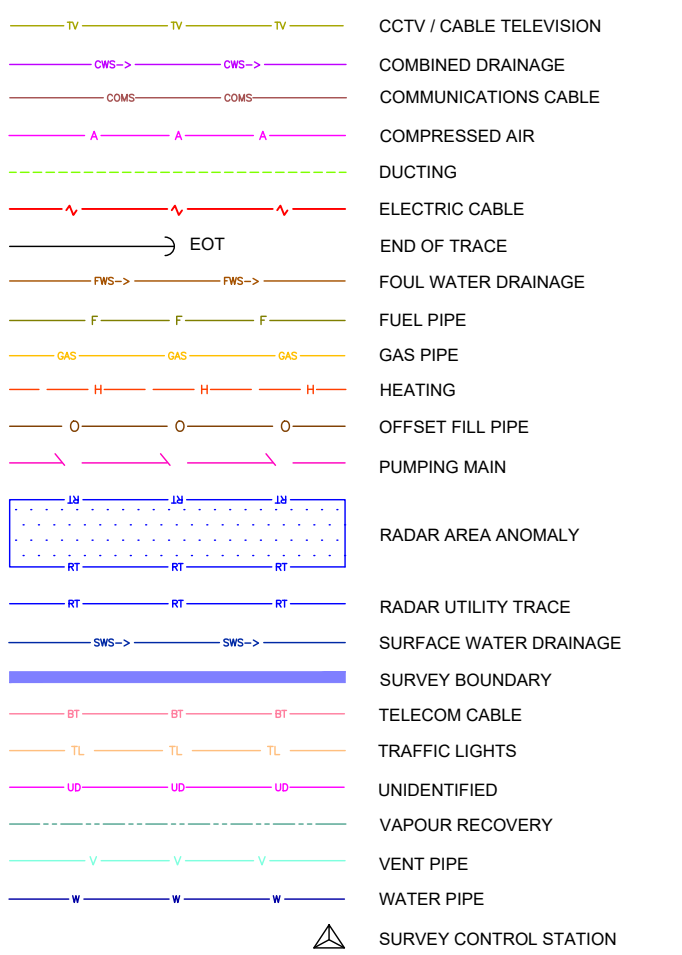
[illegible]

Base Plan - Topographical Survey by Cadmap shown in grey
See drawing CM/25943/T

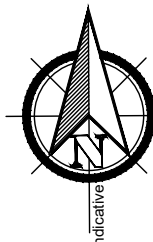
ABBREVIATIONS (Land & Utilities)

[illegible]

KEY



North:



Grid:

Local Grid

Levelling

Datum based on manhole as shown.
Value used 50.00m

Drawing Title:

CCTV Drainage Survey

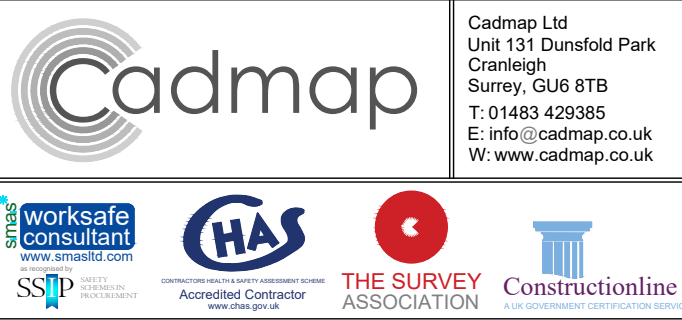
Site Address:

Unit 32 Stakehill Ind. Estate
Bentley Avenue
Manchester
M24 2RW

Client:

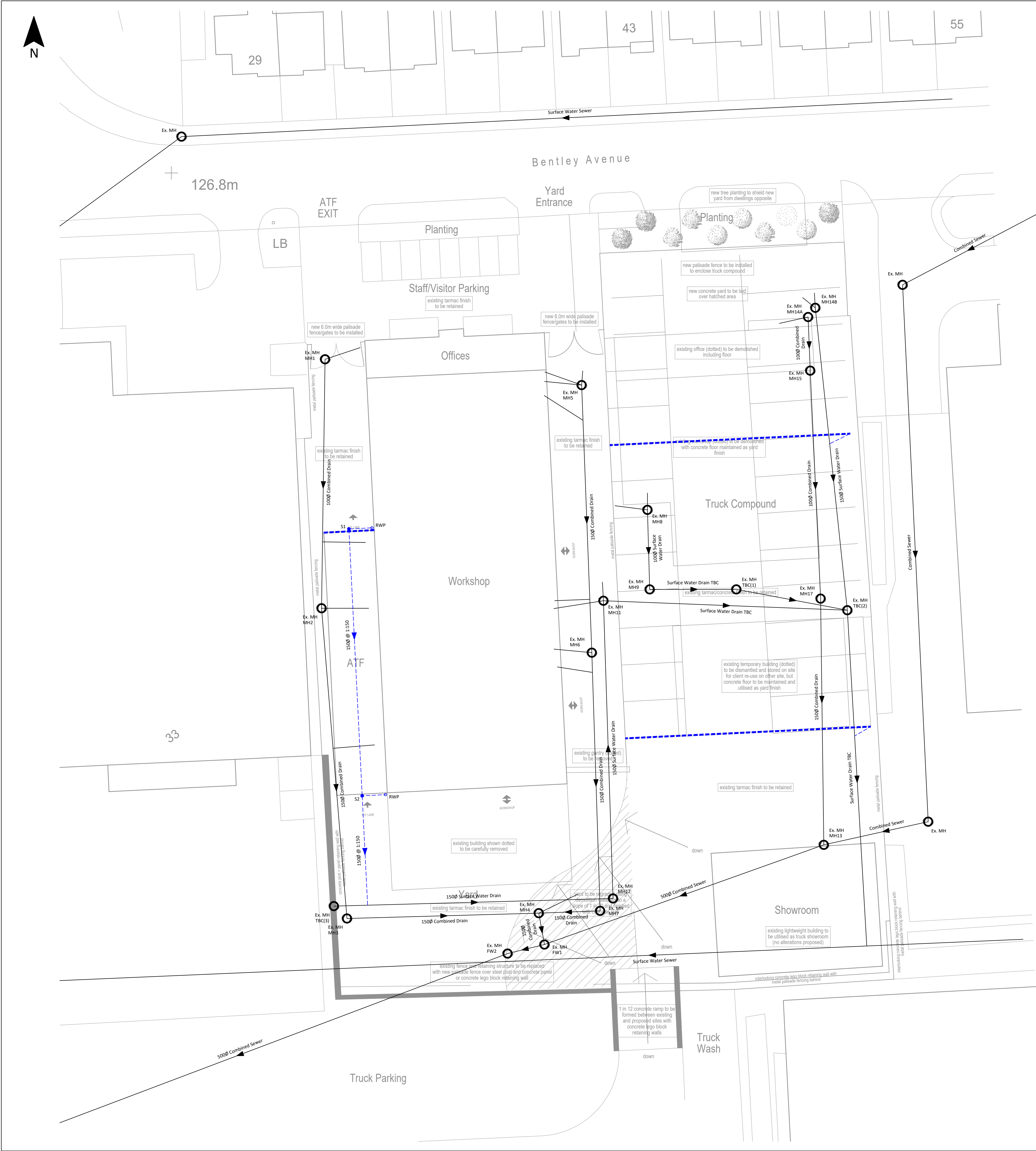
Montgomery Transport Ltd

Surveyor	CP	Drawn By	CP	Verified By	AS	Date	19.08.25
CM No: CM/25943-CCTV				Rev:			
Scale: 1:200m @ A1				Date: August 2025			





Appendix B – Proposed Drainage Drawings

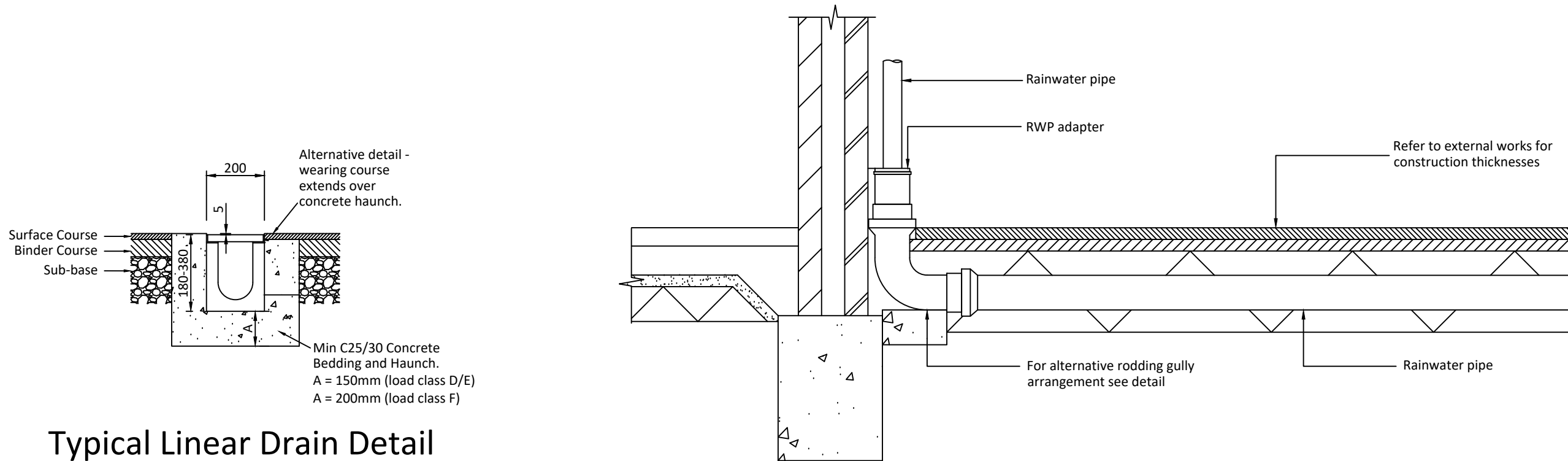


- Key**
- Proposed Surface Water Drainage
 - Proposed Linear Drain
 - Existing Drainage
 - Proposed Inspection Chamber
 - Existing Manhole
 - RWP Proposed Rainwater Down Pipe

- Notes**
- Do not scale this drawing.
 - This drawing is to be read in conjunction with all other project drawings and specifications.
 - All dimensions are in millimetres unless stated otherwise.
 - Should there be any conflict between the details indicated on this drawing and those indicated on other drawings the Project Engineer shall be informed prior to construction.
 - Until technical approval has been obtained from the relevant authority, it should be understood that all drawings issued are preliminary and not for construction. Should the contractor commence site work prior to such approval being given, it is entirely at their own risk.
 - All 1000 proposed drainage pipes shown are to be laid at a minimum gradient of 1:80.
 - All 1500 proposed drainage pipes shown are to be laid at a minimum gradient of 1:150.
 - All existing land drains encountered on site during construction are to be re-connected.
 - Temporary protection to be provided to drainage work during construction as necessary.
 - Topographical survey and architectural layout based on third party information.
 - Anticipated foul flow rates calculated using discharge unit method to BS EN 12056-2.
 - Drawing to be read in conjunction with Causeway Flow design pack.
 - Pipes to be structured walled to BS EN 13476. Polypropylene to BE EN 1852 or PVC-U to BS EN 1401.
 - Both clay and concrete pipes shall be strength class 120 (100/150mm min crushing strength 28kN/m).
 - Thermoplastic pipes shall have a minimum ring stiffness of SN4
 - Pipes which run adjacent to buildings shall be installed in strict accordance with Building Regulations Part H, clauses 2.23 to 2.25.
 - Class 2 concrete bed and surround to all foul and surface water pipes with less than 900mm cover depth. Type S granular bed and surround to all foul and surface water pipes with greater than 900mm cover depth.
 - All manholes and inspection chambers subject to vehicular trafficking to have D400 load-rated covers and frames to BS EN 124. All manholes and inspection chambers not subject vehicular trafficking to have B125 load-rated covers and frames to BS EN 124.
 - Concrete to be GEN1 unless specified otherwise.
 - The first flexible joint in pipes adjoining a manhole shall be a maximum length of 600mm from the inside face of the manhole, connecting to a rocker pipe. The length of the rocker pipe shall be 600mm.
 - All foul and surface water pipes to be constructed to Building Regulations Part H.
 - Connectivity of all existing site drainage to be confirmed prior to construction.

- CDM Requirements**
- Risk - Deep excavation**
Control method - Contractor to design trench support to depths shown on drawings and in the manhole schedule, appropriate to the ground conditions.
- Risk - Water ingress into excavations, including ground water**
Control method - Contractor to specify method of dealing with ingress of water into excavations, in particular if ground water is experienced. Contractor to undertake trench inspections prior to entry into any excavation, and again if left overnight or if conditions change.

-	-	-
Revision	Details	Date
NC29 Ltd Newstead House, Pelham Road Nottingham, NG5 1AP Tel : 07753 168226 Web: www.nc29.co.uk Email : info@nc29.co.uk		
Project	Proposed Extension & Alterations Unit 32, Stakehill Industrial Estate	
Client	Ballyvesey Holdings Ltd	
Title	Proposed Drainage Layout	
Drawn	CC	Checked CC
Date	October 2025	Scale 1:250
Number	1987/001	Status Preliminary

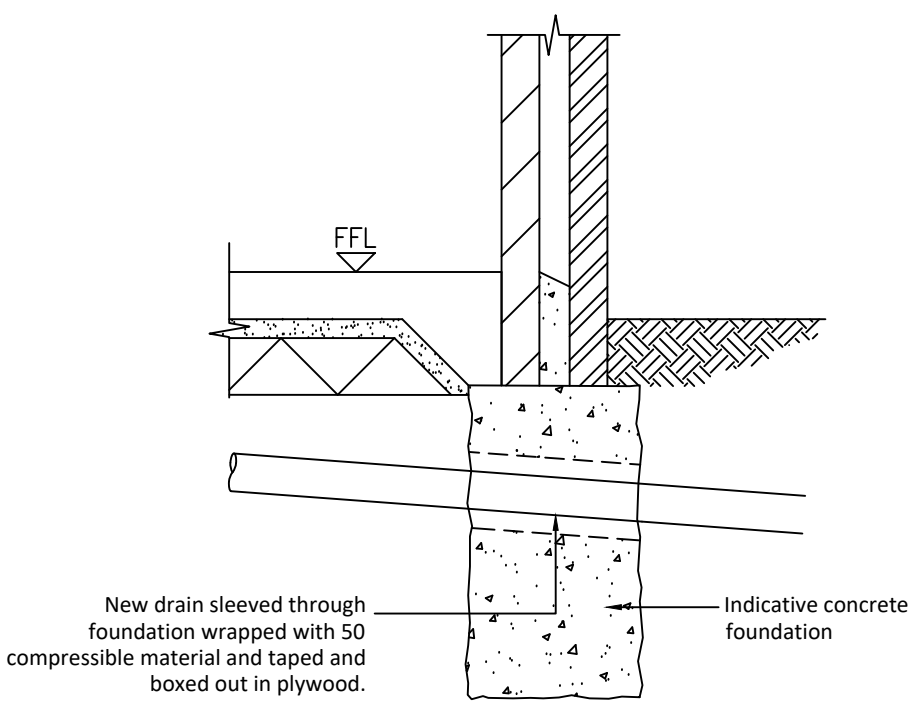


Typical Linear Drain Detail

Scale 1:20

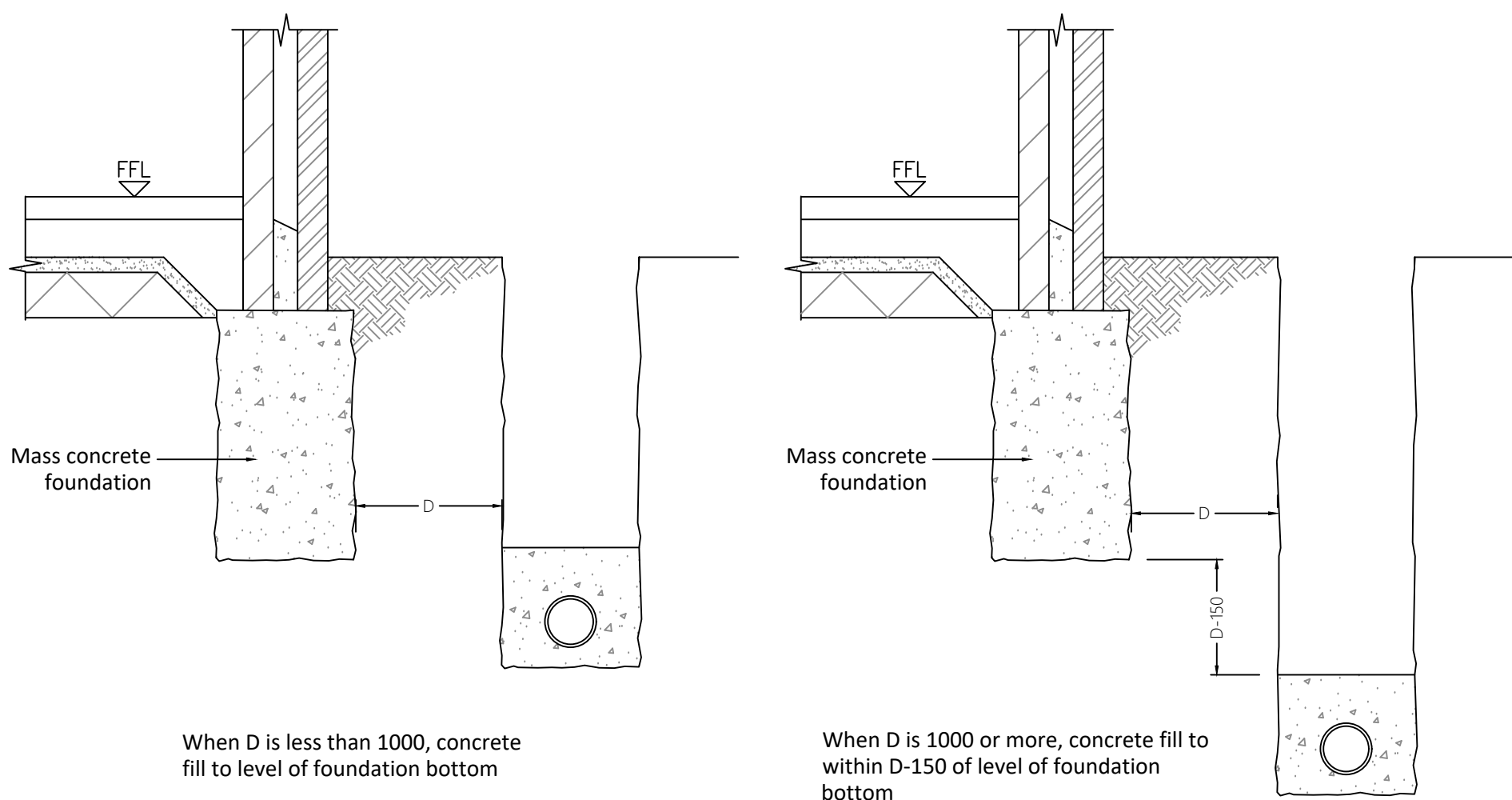
Typical Rainwater Pipe Detail

Scale 1:20



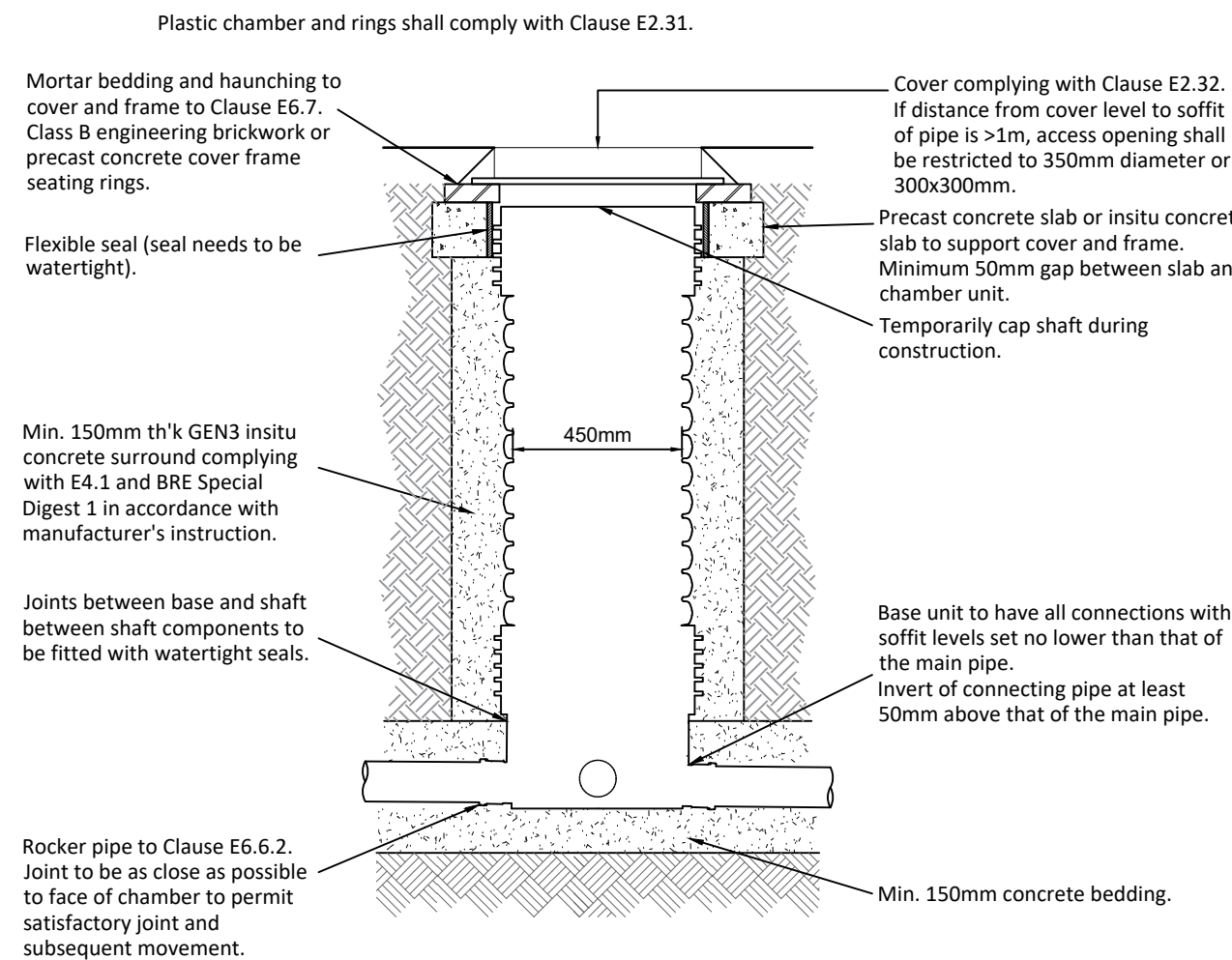
Drain Sleeved Through Foundation Detail

Scale 1:20



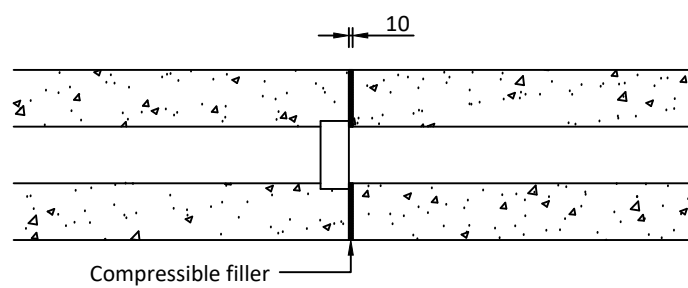
Pipe Protection Near Foundation Details

Scale 1:20



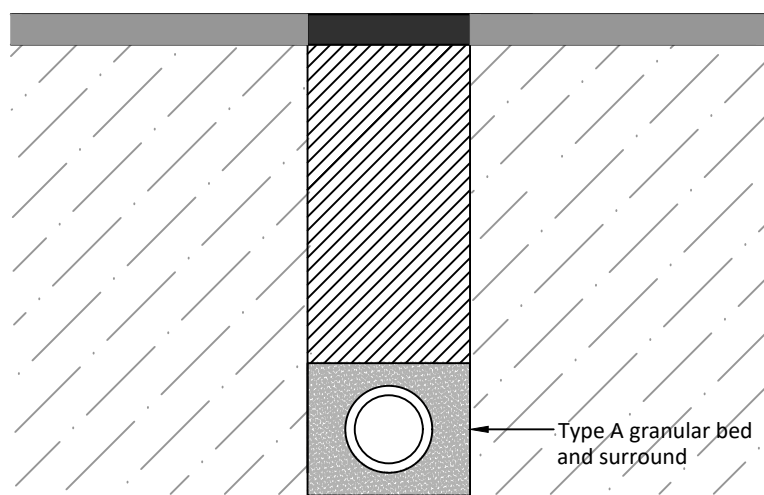
Typical Inspection Chamber Detail

Scale 1:20

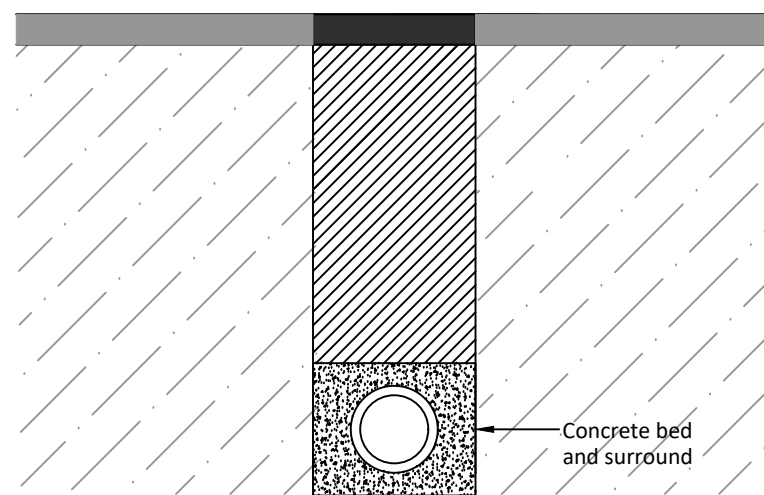


Typical Flexible Joint to Concrete Bed and Surround Detail

Scale 1:20



Class 5 granular bed and surround - pipe cover depth >900mm trafficked areas or >600mm non-trafficked areas



Class 2 concrete bed and surround - pipe cover depth <900mm trafficked areas or <600mm non-trafficked areas

Typical Pipe Bedding Details

Scale 1:50

- Selected backfill material
- Granular bedding material
- Concrete bedding material
- Surface reinstatement as per soft or hard landscaping specification

- Notes
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-	-	-
Revision	Details	Date
NC29 Ltd 269 Lincoln Road North Hykeham, Lincoln, LN6 8NH Tel : 07753 168226 Web: www.nc29.co.uk Email : info@nc29.co.uk		
Project	Proposed Extension & Alterations Unit 32, Stakehill Industrial Estate	
Client	Ballyvesey Holdings Ltd	
Title	Proposed Drainage Details	
Drawn	CC	Checked CC
Date	October 2025	Scale As Shown
Number	1987/002	Status Preliminary



Appendix C – United Utilities Sewer Maps

NC29 Ltd**269
Lincoln Road, North Hykeham
Lincoln, Lincolnshire
LN6 8NH****FAO:****How to contact us:****United Utilities Water Limited
Property Searches
Haweswater House
Lingley Mere Business Park
Great Sankey
Warrington
WA5 3LP****Telephone: 0370 7510101****E-mail: propertysearches@uuplc.co.uk****Your Ref: Stakehill
Our Ref: UUPS-ORD-686291
Date: 22/10/2025****Dear Sirs****Location: LEE HEALEY CO LTD UNIT 1 BENTLEY AVENUE, MIDDLETON, MANCHESTER, M24 2GP**

I acknowledge with thanks your request dated 21/10/2025 for information on the location of our services.

Please find enclosed plans showing the approximate position of United Utilities' apparatus known to be in the vicinity of this site.

The enclosed plans are being provided to you subject to the United Utilities terms and conditions for both the wastewater and water distribution plans which are shown attached.

If you are planning works anywhere in the North West, please read United Utilities' access statement before you start work to check how it will affect our network. <http://www.unitedutilities.com/work-near-asset.aspx>.

I trust the above meets with your requirements and look forward to hearing from you should you need anything further.

If you have any queries regarding this matter please [contact us](#).

Yours Faithfully,



Karen McCormack
Property Searches Manager

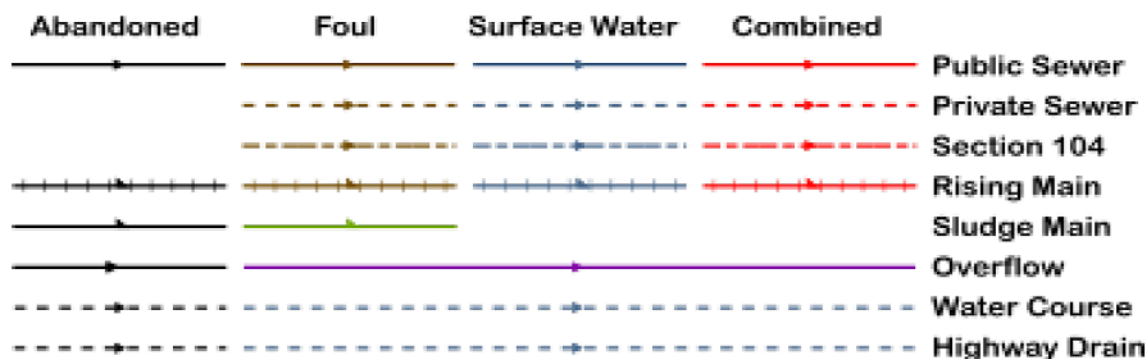
TERMS AND CONDITIONS - WASTEWATER AND WATER DISTRIBUTION PLANS

These provisions apply to the public sewerage, water distribution and telemetry systems (including sewers which are the subject of an agreement under Section 104 of the Water Industry Act 1991 and mains installed in accordance with the agreement for the self construction of water mains) (UUWL apparatus) of United Utilities Water Limited "(UUWL)".

TERMS AND CONDITIONS:

- This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out in this agreement or the documents referred to in it.
- This Map and any information supplied with it is provided for general guidance only and no representation, undertaking or warranty as to its accuracy, completeness or being up to date is given or implied.
- In particular, the position and depth of any UUWL apparatus shown on the Map are approximate only. UUWL strongly recommends that a comprehensive survey is undertaken in addition to reviewing this Map to determine and ensure the precise location of any UUWL apparatus. The exact location, positions and depths should be obtained by excavation trial holes.
- The location and position of private drains, private sewers and service pipes to properties are not normally shown on this Map but their presence must be anticipated and accounted for and you are strongly advised to carry out your own further enquiries and investigations in order to locate the same.
- The position and depth of UUWL apparatus is subject to change and therefore this Map is issued subject to any removal or change in location of the same. The onus is entirely upon you to confirm whether any changes to the Map have been made subsequent to issue and prior to any works being carried out.
- This Map and any information shown on it or provided with it must not be relied upon in the event of any development, construction or other works (including but not limited to any excavations) in the vicinity of UUWL apparatus or for the purpose of determining the suitability of a point of connection to the sewerage or other distribution systems.
- No person or legal entity, including any company shall be relieved from any liability howsoever and whensoever arising for any damage caused to UUWL apparatus by reason of the actual position and/or depths of UUWL apparatus being different from those shown on the Map and any information supplied with it.
- If any provision contained herein is or becomes legally invalid or unenforceable, it will be taken to be severed from the remaining provisions which shall be unaffected and continue in full force and affect.
- This agreement shall be governed by English law and all parties submit to the exclusive jurisdiction of the English courts, save that nothing will prevent UUWL from bringing proceedings in any other competent jurisdiction, whether concurrently or otherwise.

Wastewater Symbolology



All point assets follow the standard colour convention: **red** – combined **brown** - foul
blue – surface water **purple** - overflow

Manhole	Side Entry Manhole
Head of System	Outfall
Extent of Survey	Screen Chamber
Rodding Eye	Inspection Chamber
Inlet	Bifurcation Chamber
Discharge Point	Lamp Hole
Vortex	T Junction / Saddle
Penstock	Catchpit
Washout Chamber	Valve Chamber
Valve	Vent Column
Air Valve	Vortex Chamber
Non Return Valve	Penstock Chamber
Soakaway	Network Storage Tank
Gully	Sewer Overflow
Cascade	Ww Treatment Works
Flow Meter	Ww Pumping Station
Hatch Box	Septic Tank
Oil Interceptor	Control Kiosk
Summit	DNM Network Monitoring Point
Drop Shaft	Change of Characteristic
Orifice Plate	



Water for the North West

SEWER RECORDS

Address or Site Reference

LEE HEALEY CO LTD UNIT 1
BENTLEY AVENUE,
MIDDLETON,
MANCHESTER,
M24 2GP

Scale: 1:1250
Date: 22/10/2025

Printed by: Property Searches

The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

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