

**POWERLEAGUE,
MANCHESTER NICHOLLS**

**Surface Water Drainage Strategy Technical Note
Condition 13
Planning Permission Ref 139661/FO/2024**

Rev C 24/10/24

Produced by

MJM Consulting Engineers
Southgate House
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Client

Powerleague Fives Limited

Job no 8946
Date: October 2024

Introduction

Planning permission 139661/FO/2024 was subject to planning conditions, including No. 13 relating to the submission of a Surface Water Drainage Layout. This note details how the requirements of this condition have been addressed.

Responses

“Prior to the commencement of the development hereby approved, a surface water drainage layout for the development site shall be submitted for approval in writing by the City Council, as Local Planning Authority. This shall include the following:

- *For surface water connections, evidence of agreement in principle from the relevant authority/service provider is required to ensure there is adequate spare capacity in the existing system taking future development requirements into account. An email of acceptance of proposed new connection will suffice.*

A positive response from United Utilities attached in **Appendix A**. An asset search of United Utilities drainage is attached in **Appendix B**.

- *Details of surface water attenuation that offers a reduction in surface water runoff rate in line with the Manchester Trafford and Salford Strategic Flood Risk Assessment to greenfield runoff rate.*

A detailed drainage drawing showing the reduction in runoff the minimum practical rate may be seen in **Appendix C**.

- *Finalised surface water drainage layout including all components, levels, connectivity and proposed overland flow routes for extreme events.*

A detailed drainage drawing showing the reduction in runoff the minimum practical rate may be seen in **Appendix C**. The proposed attenuation provided is sufficient to store up to the 100 year + Climate Change events.

- *Hydraulic calculations of the proposed drainage system, including all design parameters. Results must demonstrate no flooding in the 1 in 30 and no flooding of buildings for the 1 in 100 + 45% Climate Change.*

A drainage model has been developed in Causeway Flow. The results of this model may be seen in **Appendix D**. This demonstrates that the proposed attenuation is sufficient to prevent flooding in both the 1 in 30 and 1 in 100 + 45% climate change scenarios.

- *Where flows less than 5 l/s are proposed, a blockage risk assessment must be undertaken. If the risk cannot be adequately managed, a higher minimum discharge rate should be considered / agreed with relevant authority.*

Given the low flow out of the site a blockage risk assessment has been included within the existing Drainage Maintenance and Management Plan. This is attached in **Appendix E**.

- *A plan indicating easements. SuDS features (including attenuation tanks) should be appropriately positioned, including a 2.5m easement from the existing highway and a 5m easement from any dwellings, guaranteeing accessibility for future maintenance and contingency for asset failure. This practice is in accordance with SuDS Manual (C753).*

It is proposed to utilise the sub base of the padel courts as storage for surface water. The courts are more than 2.5m from the highway and far more than 5m from any existing dwellings.

- *Construction details of flow control and SuDS components.*

Drainage details have been produced and are attached in **Appendix F**.

- *Details of how the scheme shall be maintained and managed after completion.*

This is addressed in the Drainage Maintenance and Management Plan. This is attached in **Appendix E**.

Following the submission of this document (August 2024) additional information was requested by the LLFA (17/09/24). These comments have been attached to this document in **Appendix G** with responses added to their document. The relevant information in the other appendix has also been updated to suit these comments.

Appendix A
Correspondence from United Utilities

Jon Burstow

From: seweradoptions@uuplc.co.uk
Sent: 01 July 2024 13:01
To: Jon Burstow
Subject: Pre Development Enquiry for: Nicholls Community Sports Groundm Dalberg Street, M12 6BN UU Reference Number : 05941579

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon Jon

Pre Development Enquiry for: Nicholls Community Sports Groundm Dalberg Street, M12 6BN UU Reference Number : 05941579

We have carried out an assessment of your application which is based on the information provided. This pre-development advice on your drainage strategy will be valid for 12 months. Your drainage strategy will need to be reviewed by other competent authorities as part of the planning process, and we advise that you carry out the necessary site investigations to confirm the viability of your proposals.

If your investigations require access to our public sewer network, we ask that you contact our network engineers with a request for an access certificate via our main contact telephone number 0345 6723 723 or refer to the link below:

<https://www.unitedutilities.com/builders-developers/working-near-our-assets/>

Foul Water

Foul flow from this site will be allowed to drain into the public foul water/combined sewer system.

Our preferred point of discharge would be to the 300mm diameter public combined sewer within Dalberg Street located to the West of your proposed development at an unrestricted rate.

If you are able to identify an alternative, more suitable point of discharge, we request that you contact us at your earliest convenience so that we can assess suitability.

In accordance with our infrastructure plans we may ask you to change your point of connection. Therefore please contact us when you are ready to formalise your drainage proposals, we would suggest before you submit for Full Planning.

Surface Water

All surface water flow from the proposed development should drain in-line with the drainage hierarchy, as outlined in Paragraph 80, (Reference ID: 7-080-20150323), of the National Planning Practice Guidance. We also recommend you prioritise the use of multi-functional sustainable drainage systems for the management of surface water in accordance with national planning policy.

Generally, the aim should be to discharge surface run off as high up the following hierarchy of drainage options as reasonably practicable.

This is outlined as follows, in order of priority:

- 1. into the ground (infiltration);**
- 2. to a surface waterbody;**
- 3. to a surface water sewer or highway drain;**
- 4. to a combined sewer.**

For guidance, The [North West SuDS Pro-Forma](#) provides information on the appropriate evidence required at each stage of the hierarchy, to demonstrate how each level has been discounted.

The Lead Local Flood Authority has responsibility for all surface water drainage concerns and their input to

your proposal is critical. You should also consider whether it is necessary to discuss your proposal with the Environment Agency, or Internal Drainage Board (if operating in your area).

The Local Planning Authority are the determining authority for any application for planning permission and the appropriate authority for determining cost viability of a proposed drainage scheme, such assessments are outside of the jurisdiction of United Utilities.

Infiltration

Surface water runoff generated from this development should discharge to the ground via infiltration system where feasible.

A detailed evidence based feasibility assessment must be carried out in line with Chapter 25 of the CIRIA SuDS Manual 2015 to determine whether infiltration is a suitable method of surface water disposal.

Particular attention must be paid to Ground Water Source Protection Zones to ensure that the risk of pollution to these valuable resources is not compromised. Details can be obtained from the government website:

<https://www.gov.uk/guidance/groundwater-source-protection-zones-spzs#find-groundwater-spzs>

If your site is in a Groundwater Source Protection Zone, you should have regard to the Environment Agency's approach to Groundwater Protection. Information on this is available via the link below:

<https://www.gov.uk/government/publications/groundwater-protection-position-statements>

Please note that such a location could have implications for the principle of your development and the need for additional mitigating measures to protect the groundwater environment and public water supply in the detailed design of your site.

Highway Drainage

If an evidence based assessment has been carried out and confirms that infiltration is not feasible, we recommend that you investigate the possibility of draining surface water to the highway drain where this ultimately discharges to a watercourse, by contacting the relevant Highway Authority.

Public Sewer

In accordance with the hierarchy of drainage options within the National Planning Practice Guidance, both discharge to ground via infiltration and discharge to a waterbody should be discounted prior to consideration of discharging surface water to the public sewer system. Evidence should be provided to demonstrate how these have been discounted, as outlined in the North West SuDS pro-forma.

Once evidence is provided as outlined above, United Utilities will consider a connection to the 300mm diameter public combined sewer within Dalberg Street located West of the proposed site at a pass forward flow to be agreed by the Lead Local Flood Authority. United Utilities request that any agreed rate does not exceed 5l/s.

As a Water Company, we have no obligation to accept highway drainage into our public sewer network. However, should your proposals include runoff from highways, we would request that consideration is given to SuDS components that deliver source control are incorporated within the design of the scheme to reduce the volume and frequency of discharges of these flows to the public sewer.

Levels

For low-lying sites, (where the ground level of the site or the level of a basement is below the ground level at the point where the drainage connects to the public sewer), care should be taken to ensure that the property is not at increased risk of flooding. If these circumstances exist, we recommend that you contact us to discuss further. It could affect the detailed design of your site and result in the need to incorporate appropriate mitigating measures in your drainage scheme.

Land drainage / Overland flows / track drainage

United Utilities have no obligation, and furthermore we do not accept land drainage, overland flows or track drainage into the public sewerage network under any circumstances

Existing Wastewater Assets Crossing the Site

We have reviewed our records and can confirm that there does not appear to be any charted public sewers located within the boundary of proposed development. However, due to the accuracy of the records and the

public sewer transfer legislation in 2011, not all public sewers are shown on our records so we would ask that you proceed with caution and carry out your own site investigation works. If any uncharted sewers are identified while carrying out your works we would ask that you contact United Utilities at the earliest opportunity so that we can offer guidance and update our records.

Existing Water Assets Crossing the Site

It is the developer responsibility to identify utilities on-site. Where clean water assets are shown on our records, we recommend that you contact our Water Pre-Development Team, via the following email address: DeveloperServicesWater@uuplc.co.uk. Further information for this service can be found on our website via the link below:

<https://www.unitedutilities.com/builders-developers/larger-developments/pre-development/water-pre-dev/>

Connection Application

Although we may discuss and agree discharge points and rates in principle, please be aware that you will have to apply for a formal sewer connection. This is so that we can assess the method of construction, Health & Safety requirements and to ultimately inspect the connection when it is made. Details of the application process and the form itself can be obtained from our website by following the link below:

<https://www.unitedutilities.com/builders-developers/wastewater-services/sewer-connections/sewer-connection/>

We recommend that the detailed design should confirm the locations of all utilities in the area and ensure that any proposed drainage solution considers routing and clash checks where required.

If we can be of any further assistance please don't hesitate to contact us further.

Kind Regards



Lewis Barr

Assistant Developer Engineer
Developer Services & Metering
Customer Services
07827286541
unitedutilities.com

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----- Original Message -----

From: Jon Burstow [jonb@mjmc.co.uk]

Sent: 28/06/2024 15:00

To: seweradoptions@uuplc.co.uk

Subject: Automatic reply: 05941579 Nicholls Community Sports Ground, Dalberg St, Manchester M12 6BN - Wastewater Pre-Development Enquiry Submission

Thanks for your email. I am out of the office until Tuesday 2nd of July. For anything urgent please contact Andy Dickson at AndyD@mjmc.co.uk



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Appendix B
United Utilities Asset Search

Jonathan Burstow

**Southgate House
Southgate,
Wakefield, United Kingdom
wf1 1TL**

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: 8946
Our Ref: UUPS-ORD-552979
Date: 05/03/2024**

Dear Sirs

Location: Powerleague Manchester Nicholls

I acknowledge with thanks your request dated 01/03/2024 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

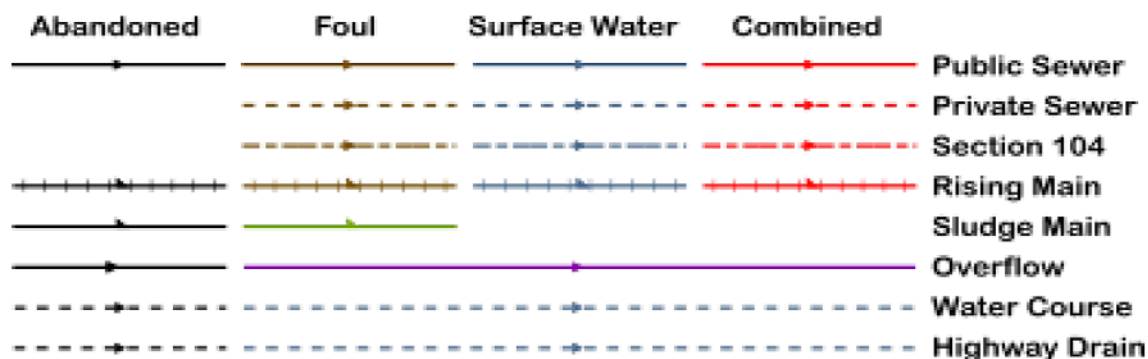
TERMS AND CONDITIONS - WASTEWATER AND WATER DISTRIBUTION PLANS

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:

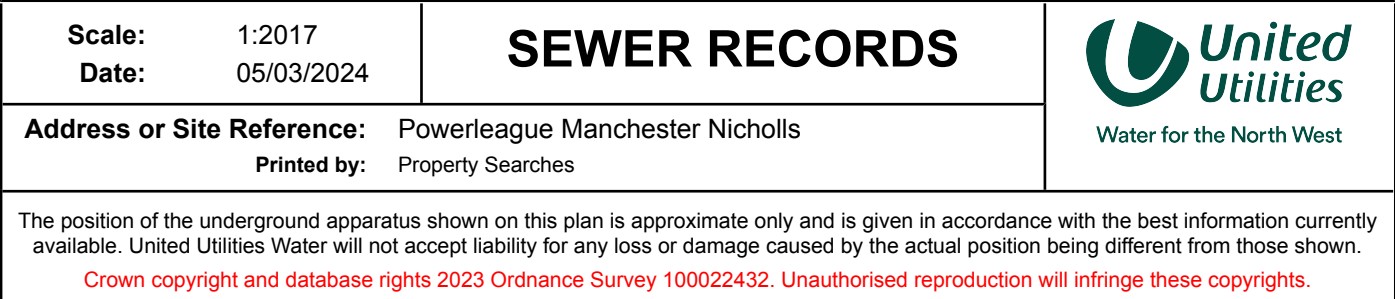
- This Map and any information supplied with it is issued subject to the provisions contained below, to the exclusion of all others and no party relies upon any representation, warranty, collateral contract or other assurance of any person (whether party to this agreement or not) that is not set out 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

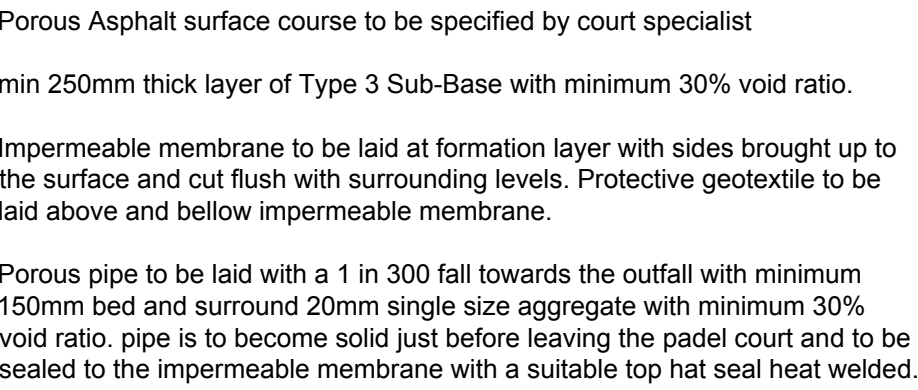
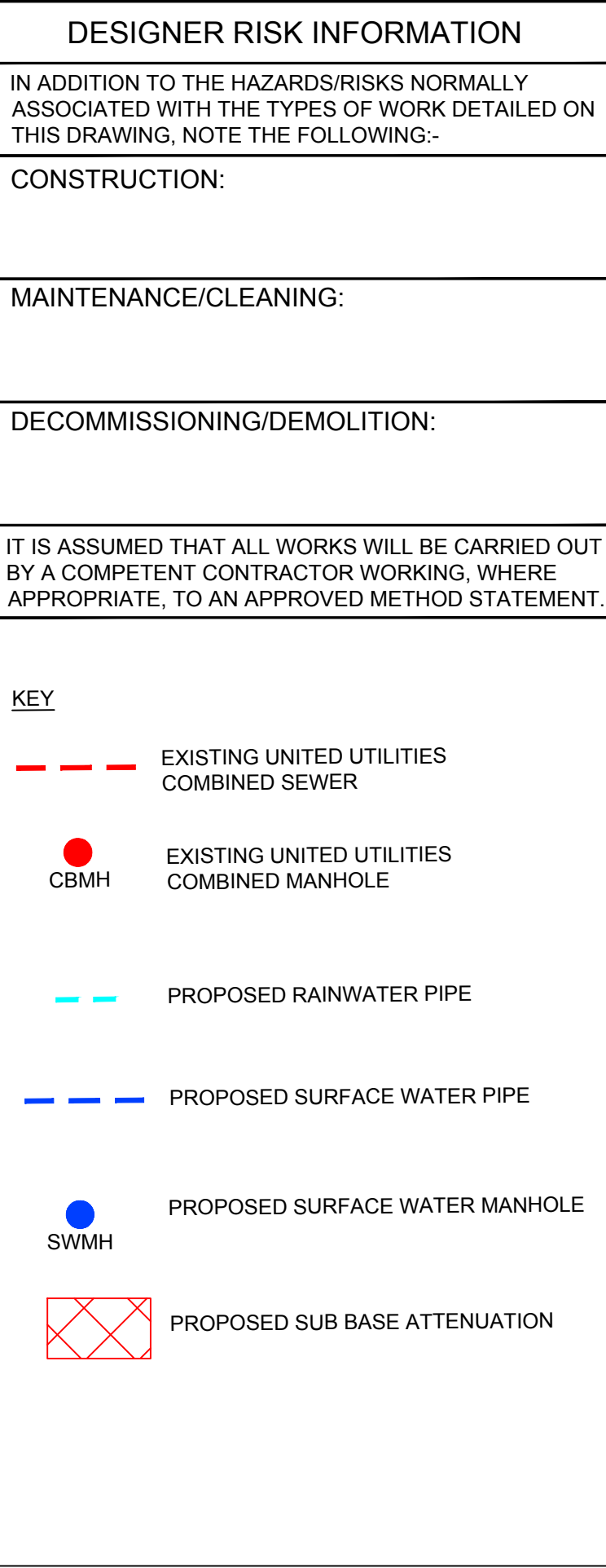


All point assets follow the standard colour convention: **red** – combined **brown** - foul
blue – surface water **purple** - overflow

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	
Drop Shaft	Change of Characteristic
Orifice Plate	



Appendix C
Drainage Layout



P03	24.10.24	ATTENUATION VOLUME AMENDED	CB	CB
P02	26.09.24	UPDATED TO SUIT LLFA COMMENTS	CB	CB
P01	16.08.24	FIRST ISSUE	JB	CB
Rev	Date	Amendment		



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Project:

POWERLEAGUE MANCHESTER NICHOLLS

Client:

POWERLEAGUE FIVES LIMITED

Drawing Title:

DRAINAGE ARRANGEMENT

 JB	 CB	 CB
MJMC Ref: 8946	Scale: 1:200	Sheet Size: A1
Revision Status: P03	Suitability Status: S2	Date: AUG 24

Suitability Description:

INFORMATION

Drawing Reference:

Project - Originator - Zone - Level - File Type - Discipline - Number

8946-MJM-XX-XX-DR Drainage Layout

Appendix D
Causeway Flow Model

Design Settings

Rainfall Methodology	FSR	Maximum Time of Concentration (mins)	30.00
Return Period (years)	2	Maximum Rainfall (mm/hr)	50.0
Additional Flow (%)	0	Minimum Velocity (m/s)	1.00
FSR Region	England and Wales	Connection Type	Level Soffits
M5-60 (mm)	17.000	Minimum Backdrop Height (m)	0.200
Ratio-R	0.400	Preferred Cover Depth (m)	1.200
CV	0.750	Include Intermediate Ground	✓
Time of Entry (mins)	5.00	Enforce best practice design rules	x

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Easting (m)	Northing (m)	Depth (m)
TANK	0.163	5.00	45.200	1	385630.004	397159.447	0.757
SWMH01			45.150	450	385629.861	397140.039	0.730
SWMH02			45.170	1200	385589.077	397139.720	1.120
CBMH			45.170	1200	385589.264	397130.897	1.200

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1.000	TANK	SWMH01	2.300	0.600	44.443	44.420	0.023	100.0	150	5.04	50.0
1.001	SWMH01	SWMH02	40.785	0.600	44.420	44.050	0.370	110.2	150	5.75	50.0
1.002	SWMH02	CBMH	8.825	0.600	44.050	43.970	0.080	110.3	150	5.90	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1.000	1.005	17.8	22.1	0.607	0.580	0.163	0.0	150	1.023
1.001	0.956	16.9	22.1	0.580	0.970	0.163	0.0	150	0.974
1.002	0.956	16.9	22.1	0.970	1.050	0.163	0.0	150	0.974

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	2.300	100.0	150	Circular	45.200	44.443	0.607	45.150	44.420	0.580
1.001	40.785	110.2	150	Circular	45.150	44.420	0.580	45.170	44.050	0.970
1.002	8.825	110.3	150	Circular	45.170	44.050	0.970	45.170	43.970	1.050

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1.000	TANK	1	Manhole	Adoptable	SWMH01	450	Manhole	Adoptable
1.001	SWMH01	450	Manhole	Adoptable	SWMH02	1200	Manhole	Adoptable
1.002	SWMH02	1200	Manhole	Adoptable	CBMH	1200	Manhole	Adoptable

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)	
TANK	385630.004	397159.447	45.200	0.757	1		0	1.000	44.443	150
SWMH01	385629.861	397140.039	45.150	0.730	450		1	1.000	44.420	150
SWMH02	385589.077	397139.720	45.170	1.120	1200		0	1.001	44.420	150
CBMH	385589.264	397130.897	45.170	1.200	1200		1	1.001	44.050	150

Simulation Settings

Rainfall Methodology	FSR	Analysis Speed	Normal
FSR Region	England and Wales	Skip Steady State	x
M5-60 (mm)	17.000	Drain Down Time (mins)	240
Ratio-R	0.400	Additional Storage (m³/ha)	20.0
Summer CV	0.750	Check Discharge Rate(s)	x
Winter CV	0.840	Check Discharge Volume	x

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	0	0	0
100	45	0	0

Node SWMH02 Online Hydro-Brake® Control

Flap Valve	x	Objective	(HE) Minimise upstream storage
Replaces Downstream Link	x	Sump Available	✓
Invert Level (m)	44.050	Product Number	CTL-SHE-0104-5000-1100-5000
Design Depth (m)	1.100	Min Outlet Diameter (m)	0.150
Design Flow (l/s)	5.0	Min Node Diameter (mm)	1200

Node TANK Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	44.443
Side Inf Coefficient (m/hr)	0.00000	Porosity	0.30	Time to half empty (mins)	154

Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)	Depth (m)	Area (m²)	Inf Area (m²)
0.000	0.0	0.0	0.407	1429.0	0.0	0.658	0.0	0.0
0.406	0.0	0.0	0.657	1429.0	0.0	0.757	0.0	0.0

Results for 2 year Critical Storm Duration. Lowest mass balance: 80.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
30 minute winter	TANK	27	44.861	0.418	19.2	6.8863	0.0000	SURCHARGED
30 minute winter	SWMH01	27	44.859	0.439	11.1	0.0697	0.0000	FLOOD RISK
15 minute summer	SWMH02	11	44.839	0.789	11.7	0.8928	0.0000	SURCHARGED
240 minute summer	CBMH	124	44.026	0.056	5.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
30 minute winter	TANK	1.000	SWMH01	11.1	0.959	0.625	0.0405	
30 minute winter	SWMH01	1.001	SWMH02	9.5	0.692	0.565	0.7180	
15 minute summer	SWMH02	1.002	CBMH	5.0	0.807	0.295	0.0546	12.3



Results for 30 year Critical Storm Duration. Lowest mass balance: 80.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
60 minute winter	TANK	57	44.892	0.449	24.3	20.2650	0.0000	SURCHARGED
60 minute winter	SWMH01	57	44.889	0.469	8.6	0.0746	0.0000	FLOOD RISK
60 minute winter	SWMH02	57	44.863	0.813	7.8	0.9198	0.0000	SURCHARGED
60 minute summer	CBMH	130	44.026	0.056	5.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
60 minute winter	TANK	1.000	SWMH01	8.6	0.896	0.486	0.0405	
60 minute winter	SWMH01	1.001	SWMH02	7.8	0.711	0.464	0.7180	
60 minute winter	SWMH02	1.002	CBMH	5.0	0.807	0.295	0.0546	36.4

Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 80.54%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
120 minute winter	TANK	116	44.963	0.520	28.6	50.7499	0.0000	FLOOD RISK
120 minute winter	SWMH01	116	44.960	0.540	6.8	0.0858	0.0000	FLOOD RISK
120 minute winter	SWMH02	116	44.931	0.881	6.0	0.9968	0.0000	FLOOD RISK
240 minute summer	CBMH	92	44.026	0.056	5.0	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
120 minute winter	TANK	1.000	SWMH01	6.8	0.822	0.384	0.0405	
120 minute winter	SWMH01	1.001	SWMH02	6.0	0.661	0.354	0.7180	
120 minute winter	SWMH02	1.002	CBMH	5.0	0.807	0.295	0.0546	82.8

Appendix E
Drainage Maintenance Plan and Blockage Risk Assessment

The throat section of channel units should be kept clear at all times to ensure uninterrupted flow of surface liquids into the drainage channel. Any debris within the throat should be removed.

The seating areas for covers and grates should be cleaned before they are replaced. The covers and grates should be locked into position to prevent these being removed, stolen or dislodged by traffic. Locking bolts should be replaced and sufficiently tightened, taking care that the bolt heads do not stand above the top surface of the cover or grate. If grates/ covers are allowed to move within their frame, this may cause damage to the frame or seating.

Pipes and manholes

Manholes are to be inspected annually for signs of blockage, with pipes jet washed and CCTV inspections carried out to the pipelines as appropriate should a blockage occur.

	Maintenance Schedule	Required Action	Frequency
Inspection Chambers	Occasional Maintenance & Monitoring	Manholes should be inspected for litter & debris to ensure that there's no signs of blockage. Pipes should be jet wash if blockage occurs.	Every 3-12 months
Drainage Channels & Gullies	Occasional Maintenance & Monitoring	Litter/silts/debris will need to be removed from sumps. Inlets & outlets will need to be inspected. Channels should be cleaned with reference to the manufacture's literature.	Every 3-12 months

General guidance for the safe inspection of underground systems and confined spaces

- Contaminated surface water can contain substances harmful to human health. Any person carrying out maintenance on equipment which could potentially contain contaminated water should wear suitable protective clothing, including gloves. Good hygiene practice should also be observed.
- When covers are removed precautions should be taken against personnel falling into the unit.
- The working area should be adequately lit and the inspector should be familiar with the area and access points
- Correct posture should be maintained, particularly when lifting. Appropriate lifting equipment should be used when necessary. Proper footing and balance should be maintained at all times, taking care to avoid any sharp edges.

Porous Asphalt Surface Sports Pitches

Pitches should be swept clean on a regular basis to remove excess silt and debris from the surface with a mechanical sweep once a year. Any vegetation growing on the sports pitches should be removed as and

Powerleague Manchester Nicholls Surface Water Drainage Maintenance Plan & Blockage Risk Assessment

– March 2024

The following surface water management plan & blockage risk assessment applies to the construction of six 4x4 Padel Courts, with associated fencing, floodlighting, cycle parking and hard/soft landscaping at Manchester Nicolls.

The underground surface water drainage within the site boundary will be maintained by the site owner. All proprietary systems will be maintained in accordance with manufacturer's recommendations. The current recommendations, where appropriate, are included below. However, the guidance provided below should be reviewed as and when manufacturer's guidance is updated. All installation and maintenance guides for proprietary systems will be retained on the premises in the Health & Safety file.

In addition to the following guidance on the underground drainage system, the above ground roof rainwater drainage system should be maintained strictly in accordance with the designer's guidance to ensure that roof run-off is conveyed in to the underground system as intended.

Gullies

Gullies draining the site hardstandings should be inspected regularly to ensure that they continue to operate effectively, and are free from damage and blockage by debris or solid objects.

They should be cleaned at least once a year, and incorporated into a planned maintenance schedule.

Any debris or blockages near to the surface of the gully should be removed by hand or by jet-vac. The trap element of the gully can be cleaned through the use of a high-pressure hose.

The seating areas for grates should be cleaned before they are replaced. If grates are allowed to move within their frame, this may cause damage to the frame or seating.

Drainage channels

Drainage channels should be inspected regularly to ensure that the system continues to operate effectively, and is free from damage and blockage by debris or solid objects.

The system should be cleaned at least once a year, and incorporated into a planned maintenance schedule. Channel units can be cleaned through the use of a high-pressure hose. This can be fed into the channel system through access units which are strategically placed along the channel run.

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Company Registration Number 3145094. VAT Number 721619645.
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when noticed, weeds and moss growth that cant be manually removed should only be done using glyphosate applied directly to the weed/moss rather than a general spray. The surface should be rehabilitated by pressure washing and sweeping every 10 – 15 years or when infiltration performance is reduced.

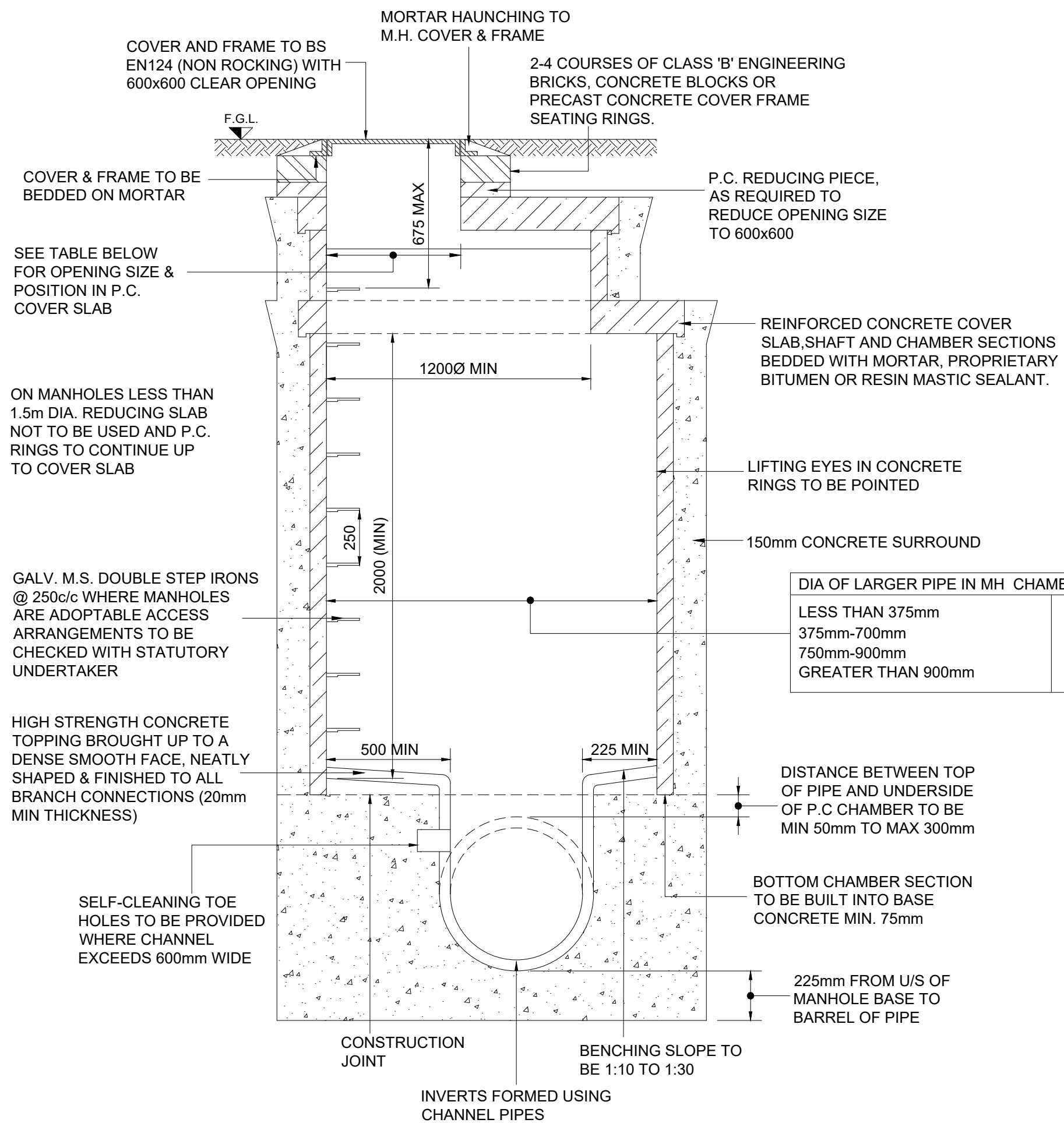
Blockage Risk assessment

Given the low flows out of the site it is important to ensure that risks of blockage to the drainage network are minimised. The arrangement of the site, with surface water captured on the proposed sites rooftop will limit the risk of detritus entering the network. Regular maintenance will be undertaken to ensure that no buildup of biological or litter material can take place that may result in a blockage. Manholes are, as previously stated, to be inspected annually for signs of blockage or sediment build up, with pipes jet washed and CCTV inspections carried out to the pipelines as appropriate should a blockage occur.

It is considered that the above are reasonable steps to minimise the risk of blockages to the proposed drainage network.

Appendix F
Drainage Details

DESIGNER RISK INFORMATION
IN ADDITION TO THE HAZARDS/RISKS NORMALLY ASSOCIATED WITH THE TYPES OF WORK DETAILED ON THIS DRAWING, NOTE THE FOLLOWING:-
CONSTRUCTION:
MAINTENANCE/CLEANING:
DECOMMISSIONING/DEMOLITION:
IT IS ASSUMED THAT ALL WORKS WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR WORKING, WHERE APPROPRIATE, TO AN APPROVED METHOD STATEMENT.



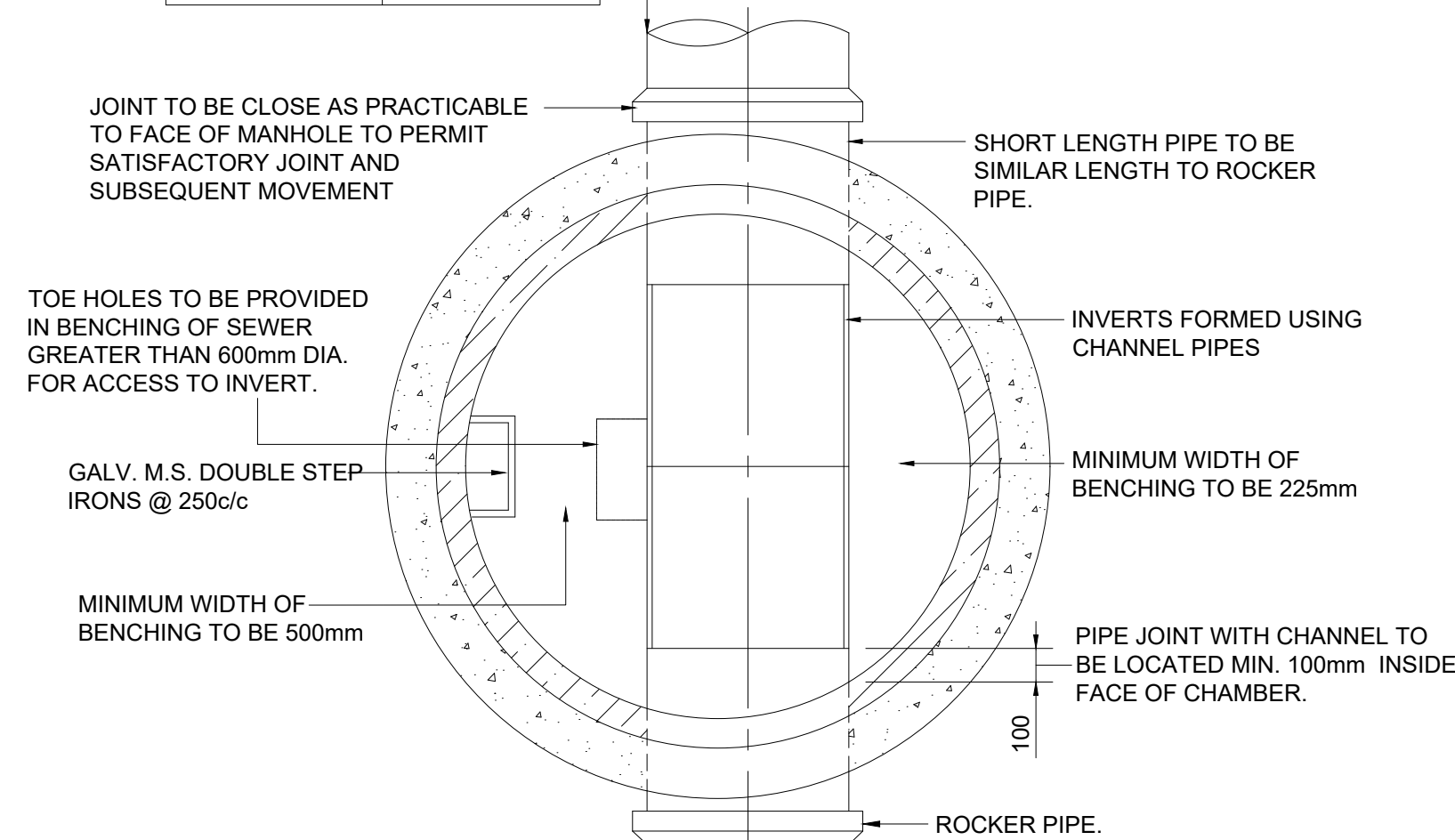
TYPE 'A' MANHOLE DETAIL
DEPTH FROM GROUND LEVEL
TO SOFFIT OF PIPE 3m to 6m

SHAFT/ CHAMBER SIZE	MANHOLE LESS THAN 1.5m DEPTH (COVER LEVEL TO PIPE SOFFIT)	MANHOLE GREATER THAN OR EQUAL TO 1.5m DEPTH (COVER LEVEL TO PIPE SOFFIT)
900	675x675 CENTRAL	675x675 CENTRAL
1050	750x750 CENTRAL	675x675 ECCENTRIC
1200	675x675 ECCENTRIC *	675x675 ECCENTRIC
1500	1200x675 CENTRAL	675x675 ECCENTRIC
1800-3000	1200x675 ECCENTRIC	675x675 ECCENTRIC

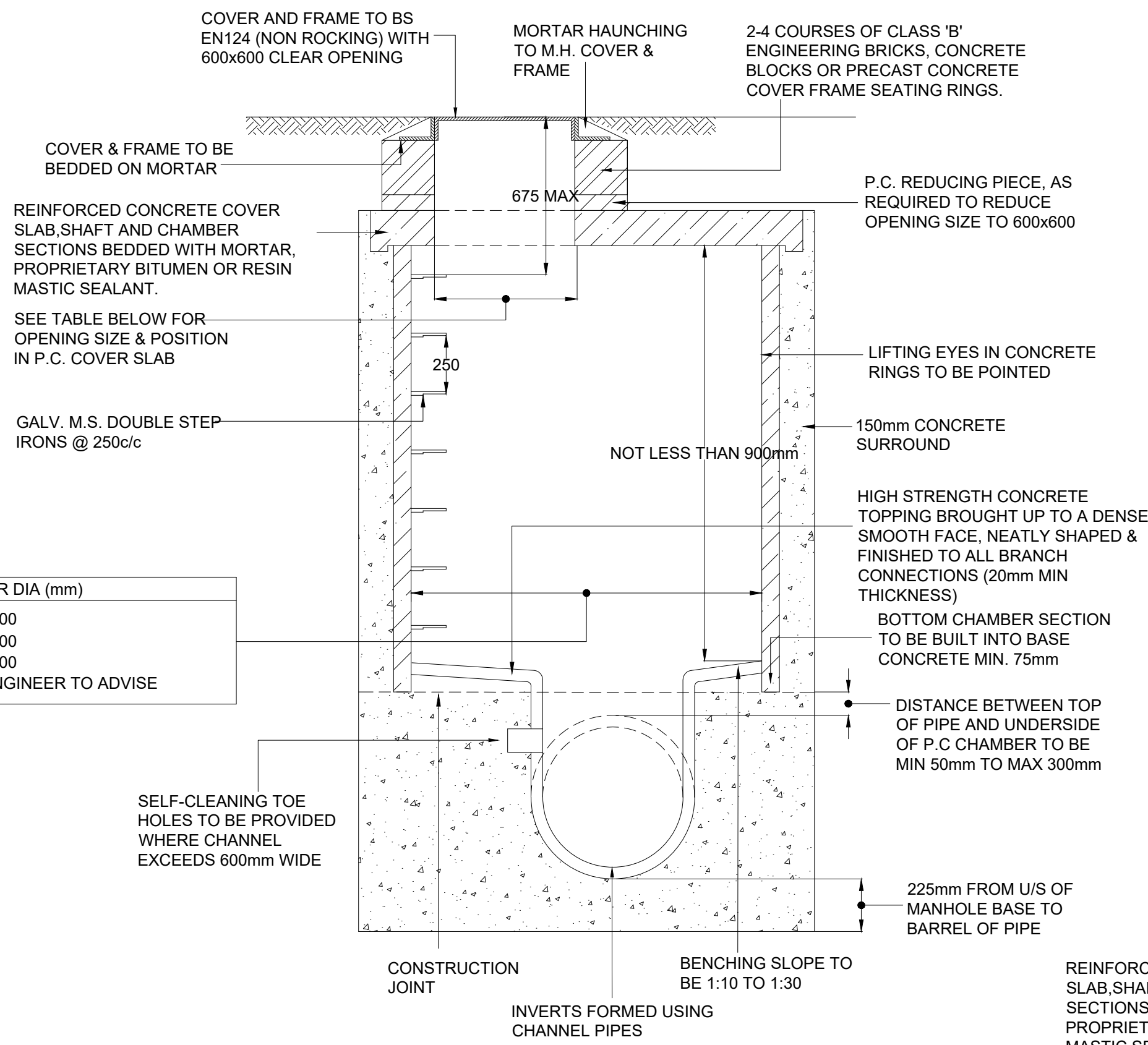
* - PERMITTED BUT NOT RECOMMENDED

POSITION & SIZE OF ACCESS HOLE IN CONCRETE
COVER SLAB TO TYPE A & B MANHOLES.

PIPE DIA.	ROCKER PIPE LENGTH
150-600	0.6
675-750	1.0
825 & ABOVE	1.25



PLAN
MANHOLE TYPE 'A'.

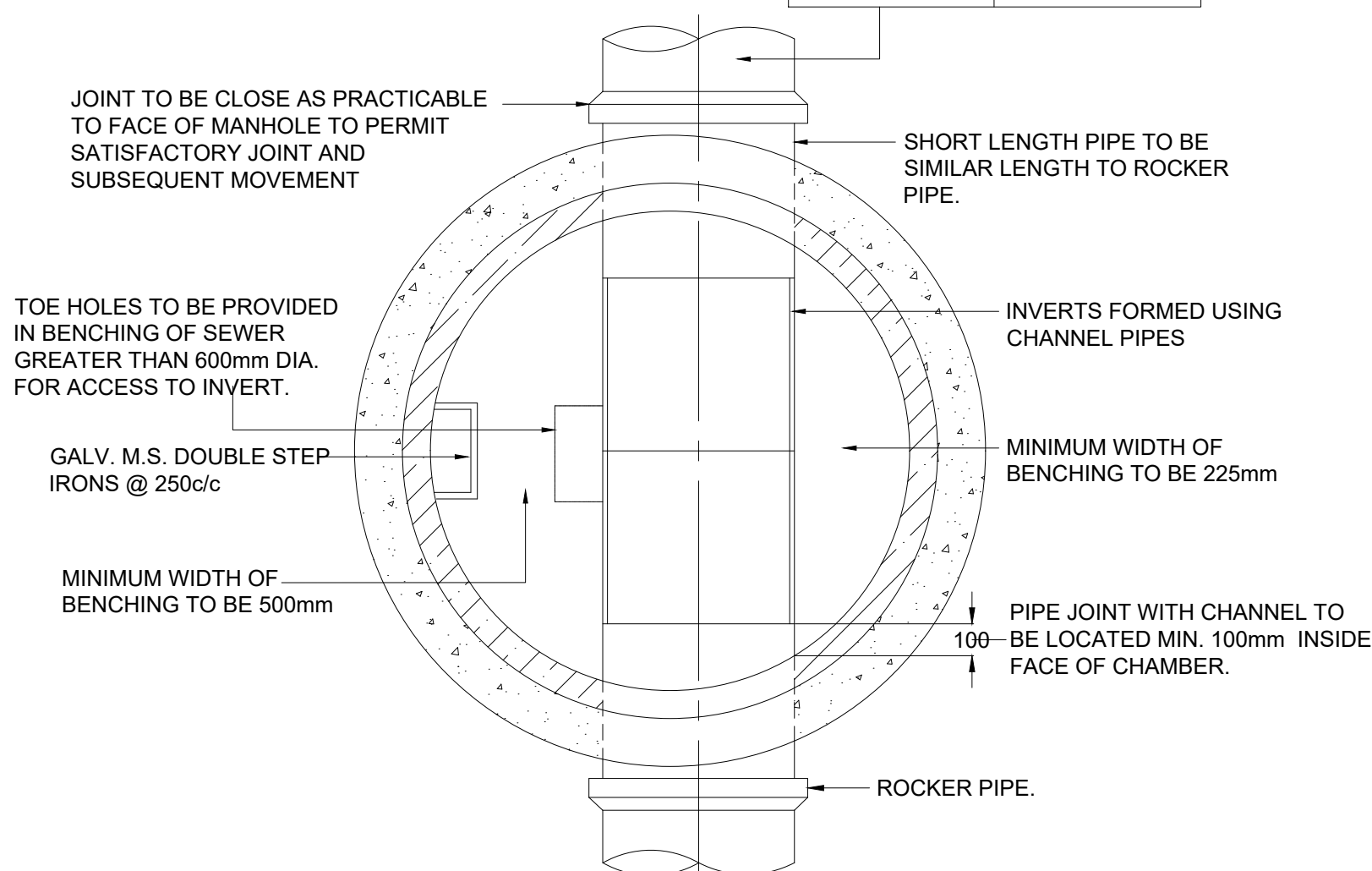


TYPE 'B' MANHOLE DETAIL
DEPTH FROM GROUND LEVEL
TO SOFFIT OF PIPE 1.50m to 3m

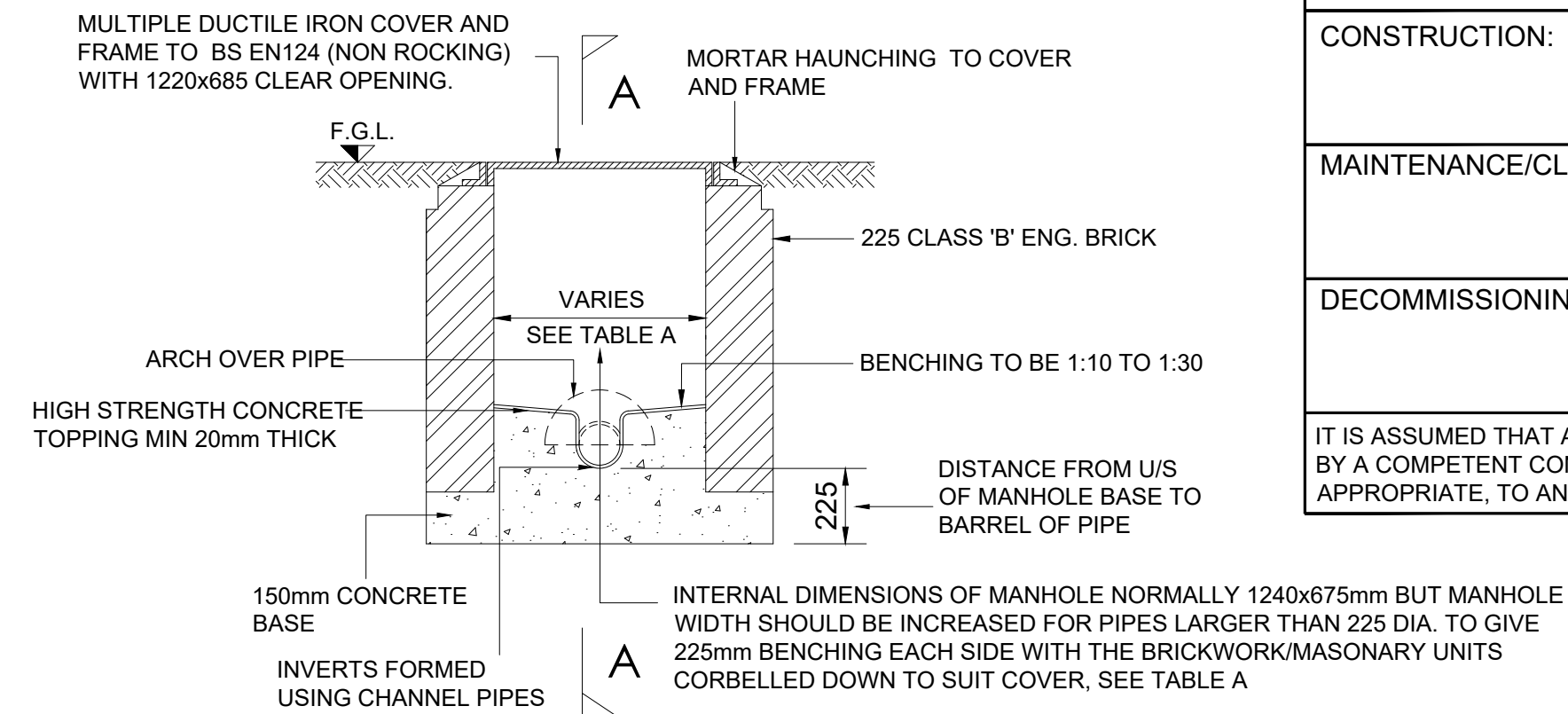
PIPE DIA.	INTERNAL MANHOLE SIZE	CORBELL DETAILS
UPTO 225	1240x675	NOT REQUIRED
300	1240x750	2 BRICK CORBELL
375	1240x825	3 BRICK CORBELL
450	1240x900	3 BRICK CORBELL
MAX. BRICK CORBELL PER COURSE TO BE 30mm		

TABLE A

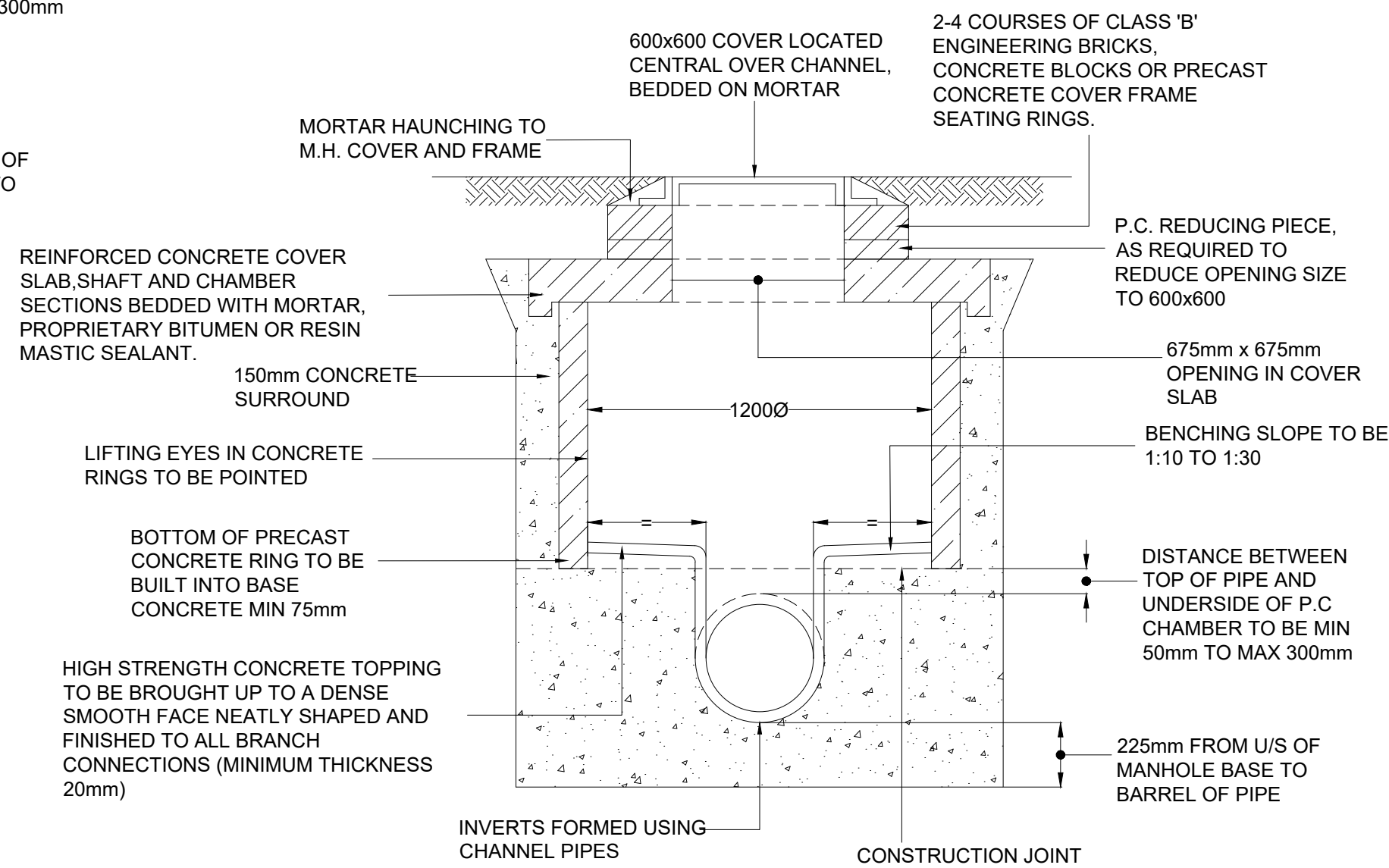
PIPE DIA.	ROCKER PIPE LENGTH
150-600	0.6
675-750	1.0
825 & ABOVE	1.25



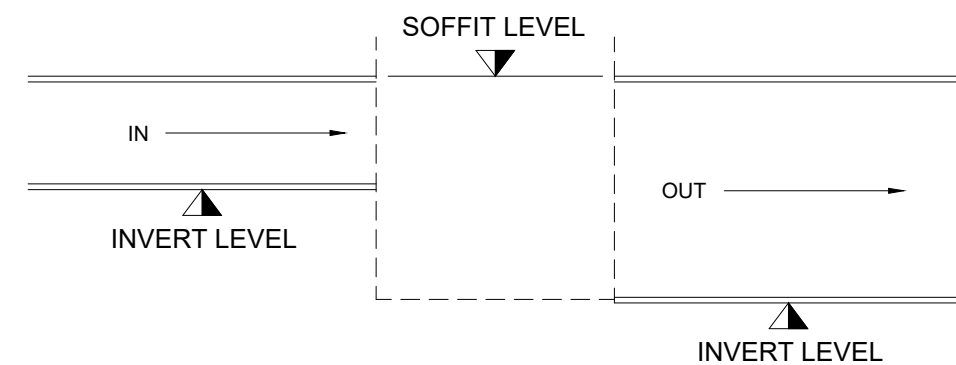
PLAN
MANHOLE TYPE 'B'.



TYPE 'C' MANHOLE DETAIL DEPTH FROM
GROUND LEVEL TO SOFFIT OF PIPE 1.00m



TYPE 'E' MANHOLE DETAIL DEPTH
FROM GROUND LEVEL TO SOFFIT
OF PIPE 1.05m to 1.50m
(FOR PIPES UP TO AND INCLUDING 375Ø)

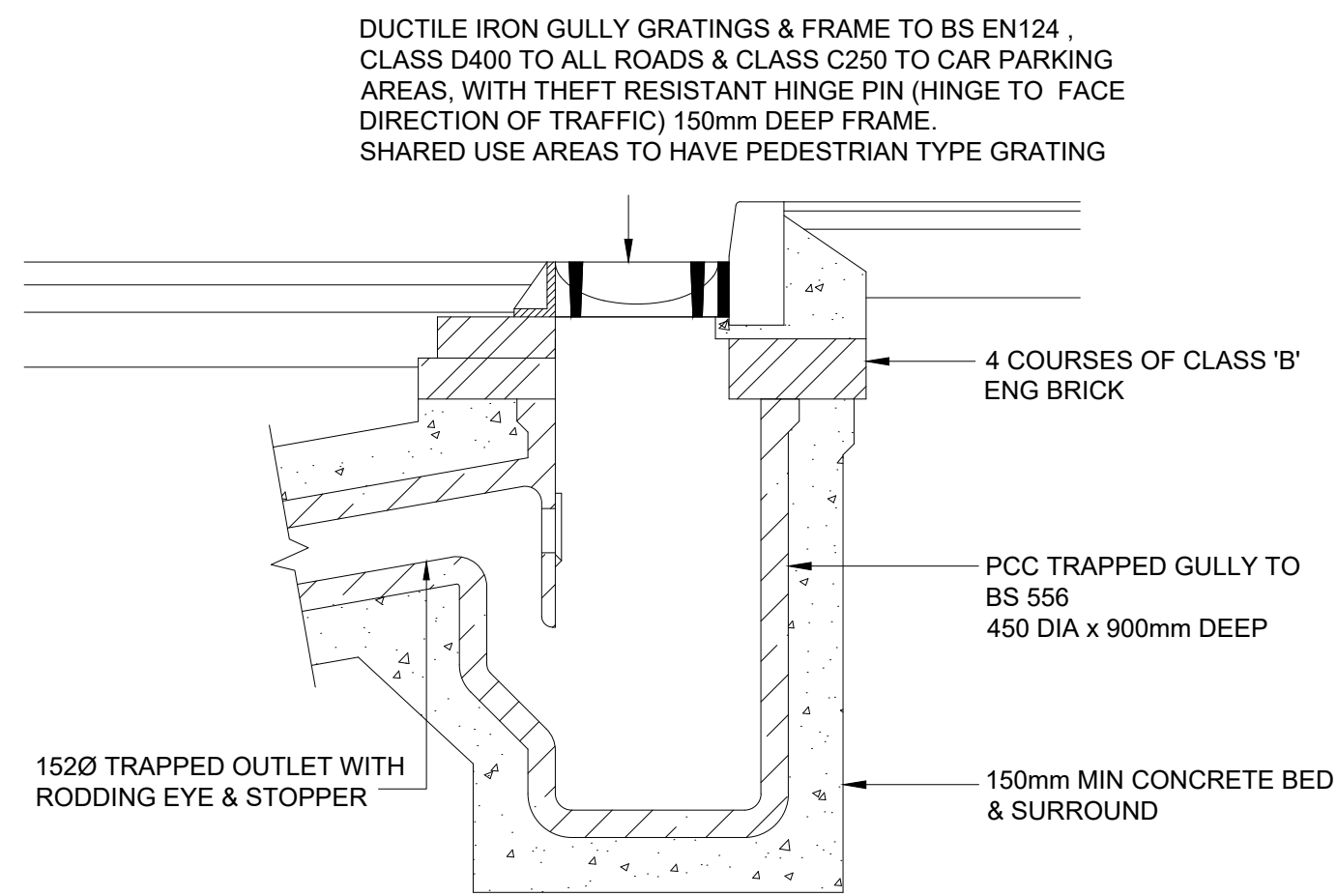


MANHOLE INVERT LEVELS
(DETAILED ON MANHOLE SCHEDULE)
(ALL SOFFITS LEVEL)

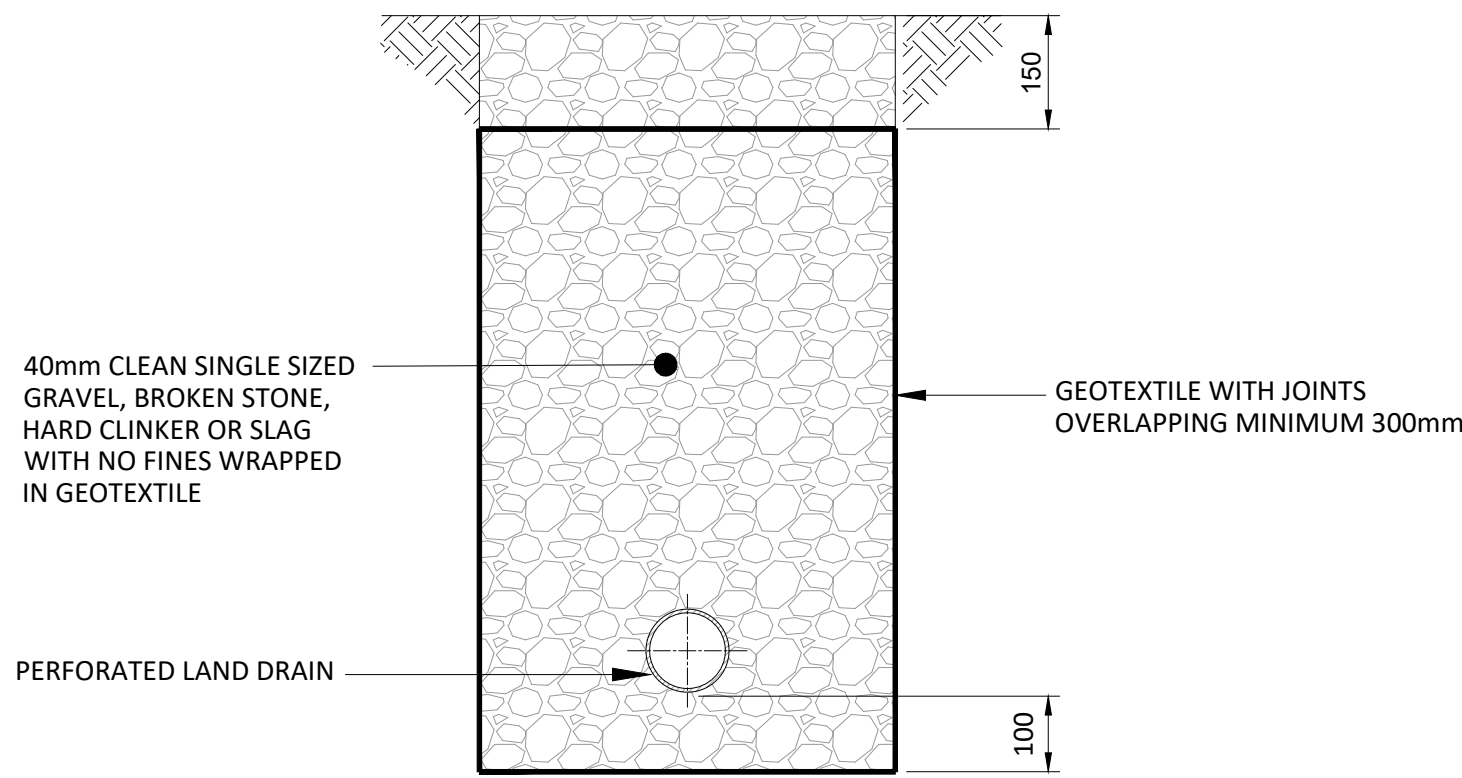
TYPICAL MANHOLE INVERT ARRANGEMENT

Rev	Date	Amendment	JB	CB
P01	19.08.24	FOR INFORMATION		
mjm Consulting Engineers Ltd				
Southgate House, 38 Southgate, Wakefield WF1 1TL T: 01924 811 000 mjmce.co.uk				
Project: MANCHESTER NICHOLLS				
Client: POWERLEAGUE FIVES LTD				
Drawing Title: DRAINAGE DETAILS SHEET 1/2				
JB	CB	CB	MMC Ref: 8946	Scale: NTS
Revision Status: P01	Suitability Status: S2	Date: AUG 24	Sheet Size: A1	
Information				
Drawing Reference: Project - Originator - Zone - Level - File Type - Discipline - Number				
8946-MJM-XX-XX-DR-C-9400				

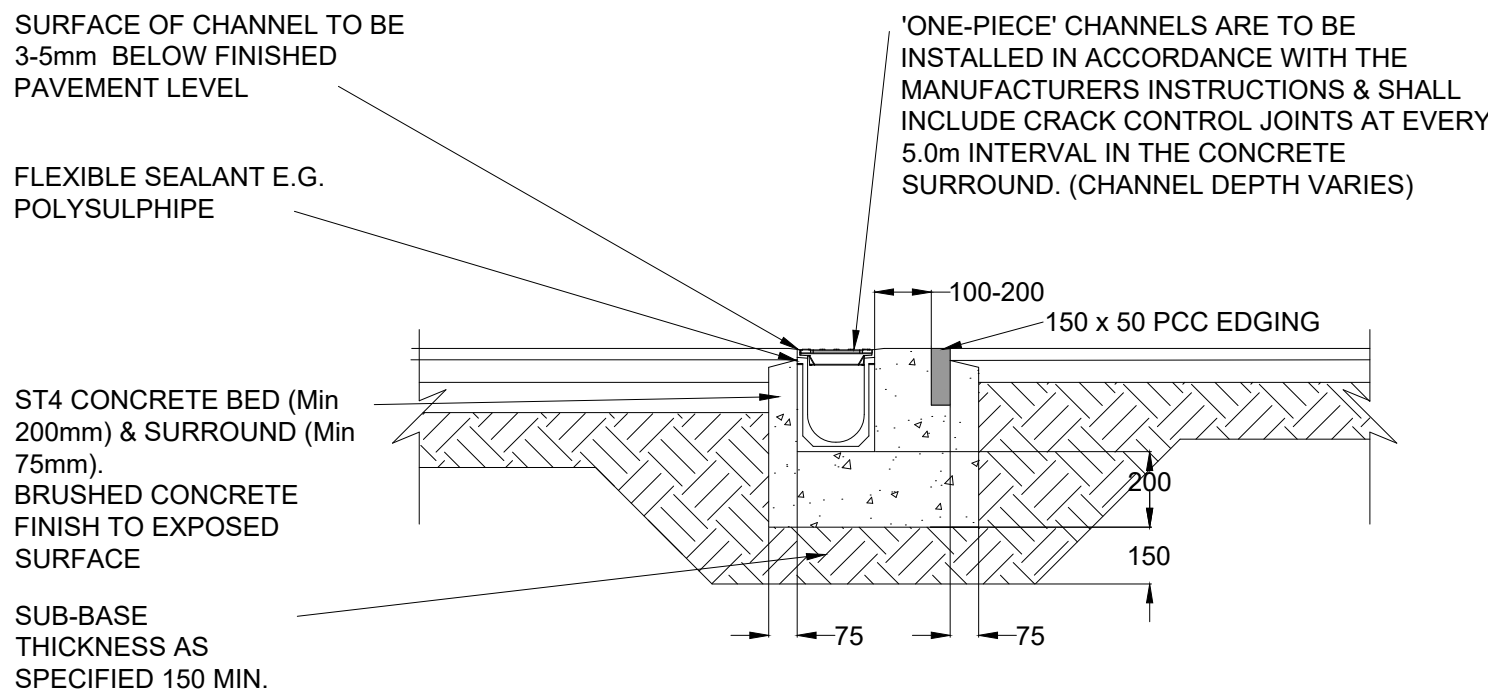
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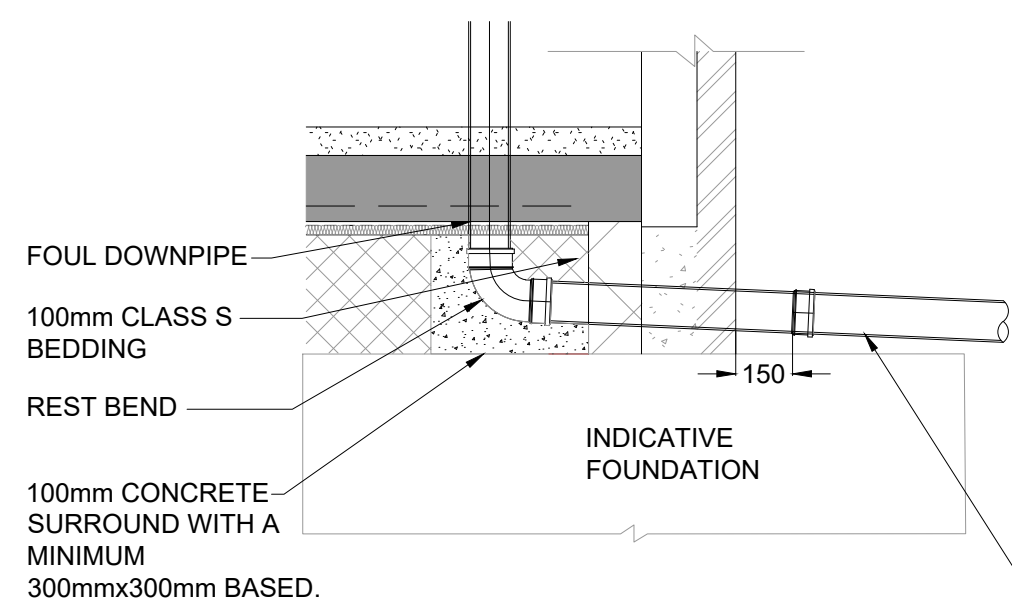
TYPICAL ROAD GULLY DETAIL



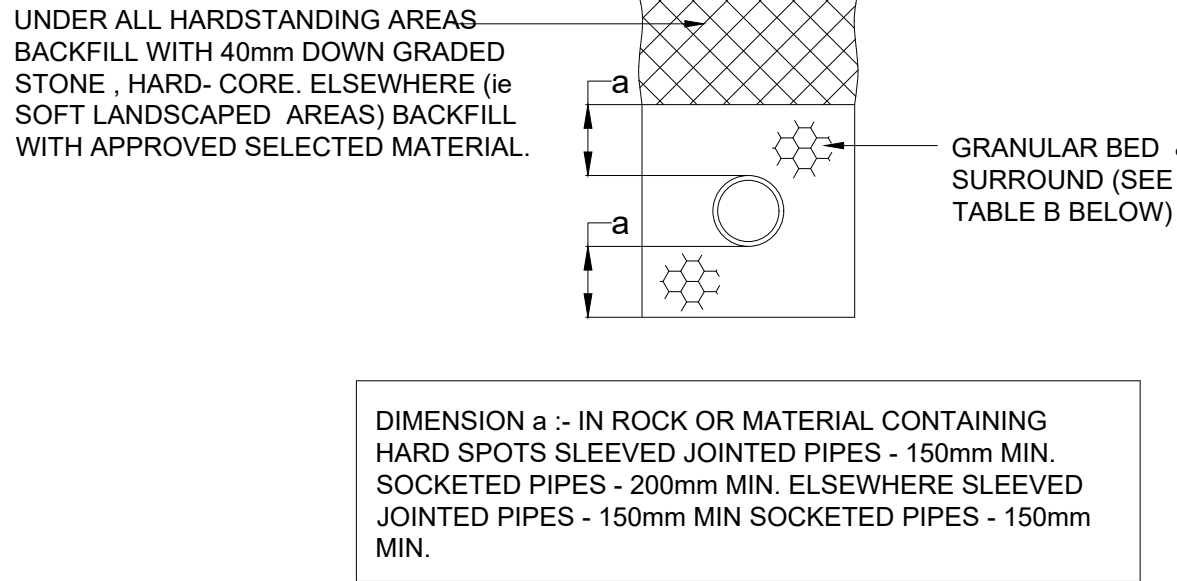
FILTER DRAIN DETAIL



TYPICAL SECTION THROUGH ACO DRAINAGE CHANNEL



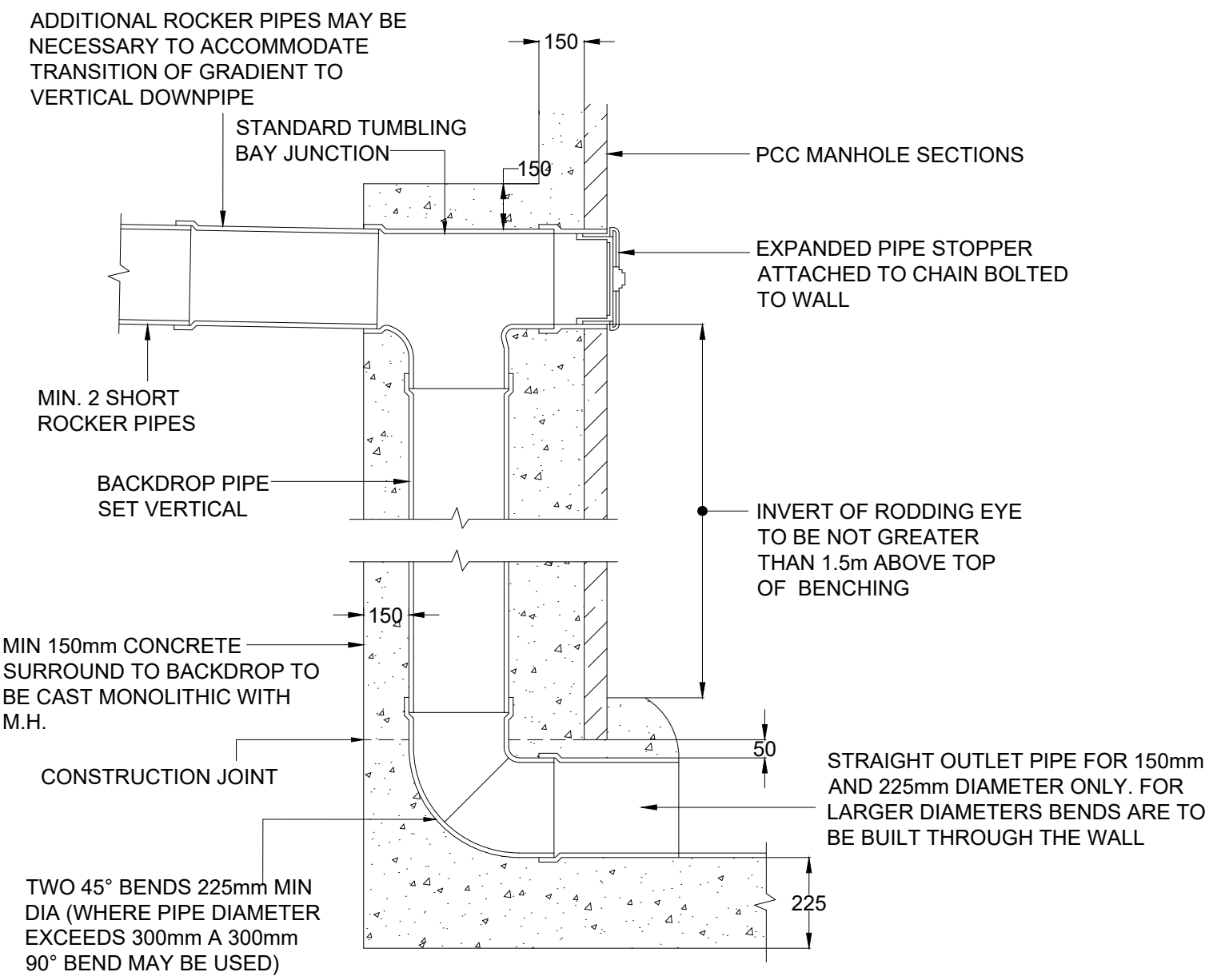
INDICATIVE SOIL AND VENT PIPE/STUB STACK/WC ABOVE FOUNDATION



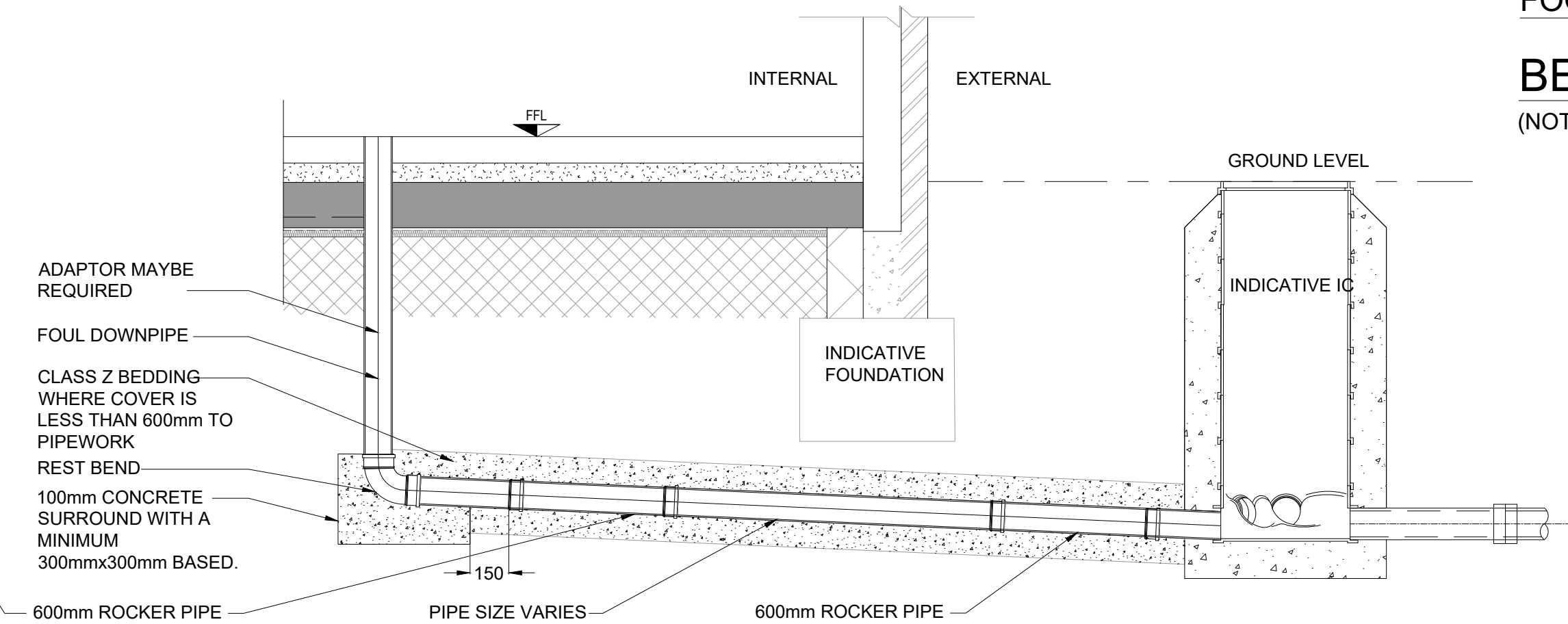
CLASS 'S' PIPE BEDDING DETAIL

PIPE NOMINAL BORE (DN)	MAX. PARTICLE SIZE (mm)	CLASS OF BEDDING	SUITABLE IMPORTED GRANULAR MATERIALS
OVER 100 TO 150 dia	15	S	10mm OR 14mm NOMINAL SINGLE-SIZED OR 14mm TO 5mm GRADED.
OVER 150 TO 500dia	20	S	10, 14 OR 20mm NOMINAL SINGLE -SIZED OR 14mm TO 5mm GRADED OR 20mm TO 5mm GRADED.
OVER 500	40	S	10, 14, 20 OR 40mm NOMINAL SINGLE-SIZED CRUSHED ROCK OR 14mm TO 5mm GRADED OR 20mm TO 5mm GRADED OR 40mm TO 5mm GRADED.

TABLE B

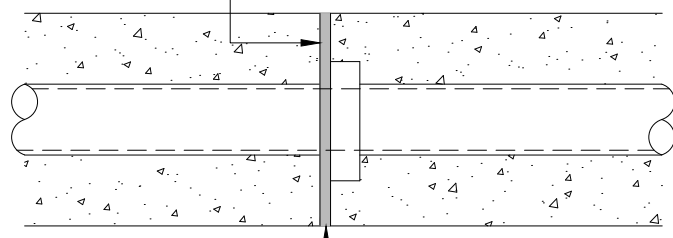


VERTICAL BACKDROP DETAIL

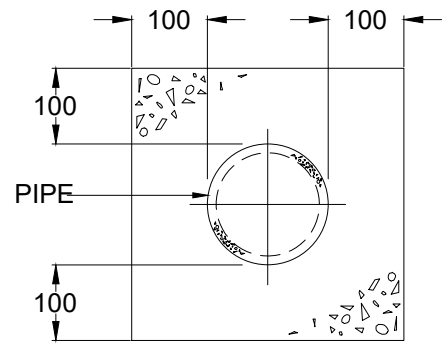
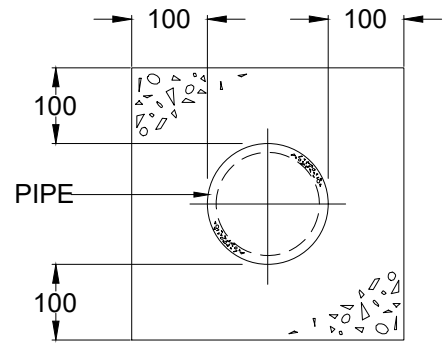


INDICATIVE SOIL AND VENT PIPE/STUB STACK/WC CONNECTION DETAIL

COMPRESSIBLE FILLER TO CONSIST OF BITUMEN IMPREGNATED INSULATING BOARD TO BS 1142: PART 3 OR OTHER EQUALLY COMPRESSIBLE MATERIAL. (FOR THICKNESS OF COMPRESSIBLE FILLER SEE TABLE ABOVE.)



MOVEMENT JOINT TO CONCRETE PIPE SURROUND



CONCRETE PIPE SURROUND DETAIL (WHERE COVER LESS THAN 1.2m)

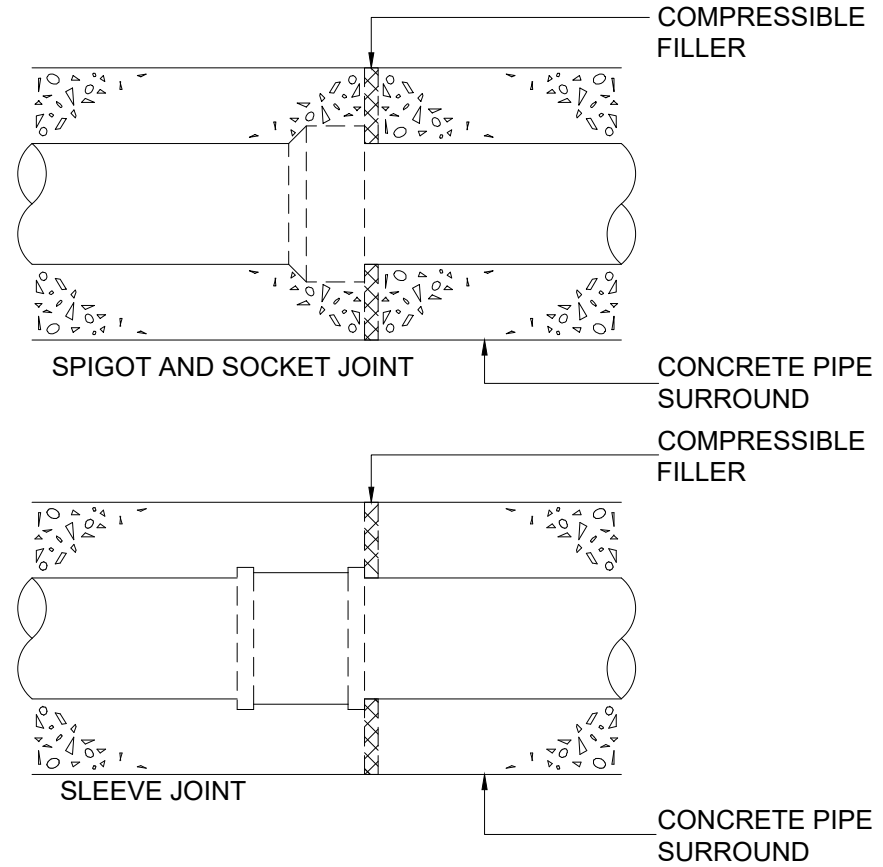
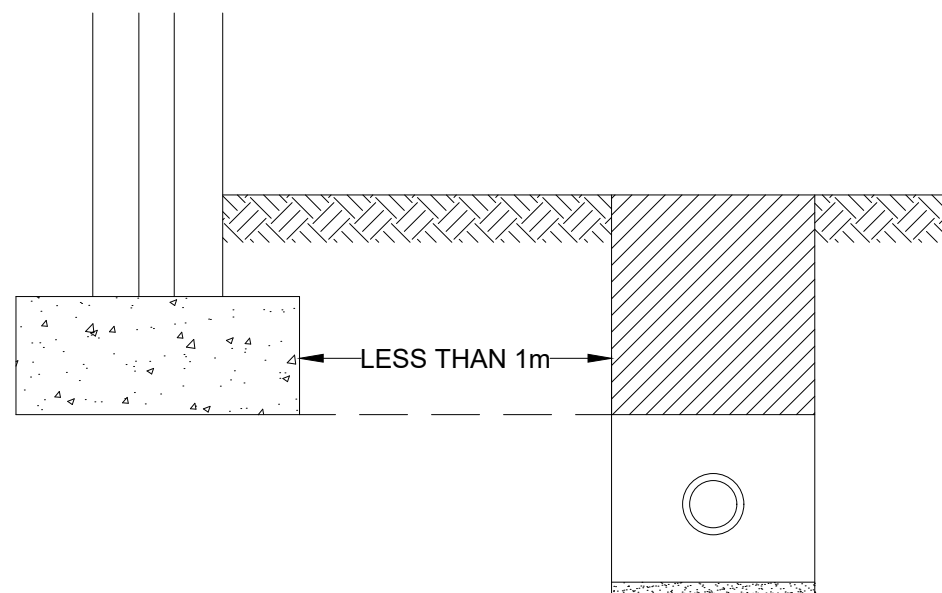


FIGURE B.28 JOINTS FOR CONCRETE ENCASED PIPES

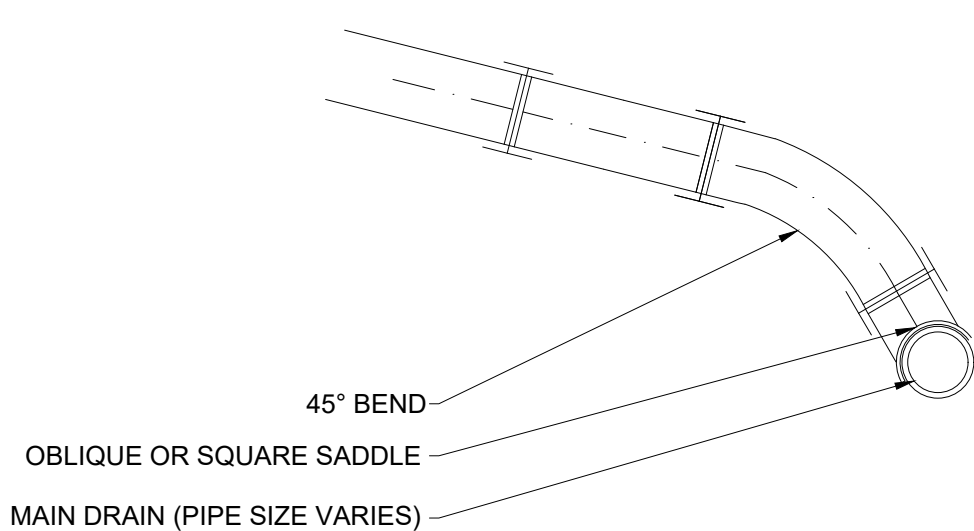
NOT TO SCALE



CLASS Z BEDDING DETAIL REQUIRED WHEN DRAIN TRENCH EDGE IS LESS THAN 1.0m FROM FOOTING/FOUNDATION EDGE CONCRETE TO BE BROUGHT UP TO UNDERSIDE

TRENCH EDGE LESS THAN 1.0m FROM FOOTING/FOUNDATION EDGE

BEDDING DETAIL IN VICINITY OF FOOTINGS/FOUNDATIONS (NOTE:- THIS IS A TYPICAL DETAIL TO BE CROSS REFERENCED WITH MJM STRUCTURAL DRAWINGS)



TYPICAL SADDLE CONNECTION DETAIL

NOMINAL DIA OF PIPE (mm)	THICKNESS OF COMPRESSIBLE FILLER (mm)
LESS THAN 450	18
450-1200	36
EXCEEDING 1200	54

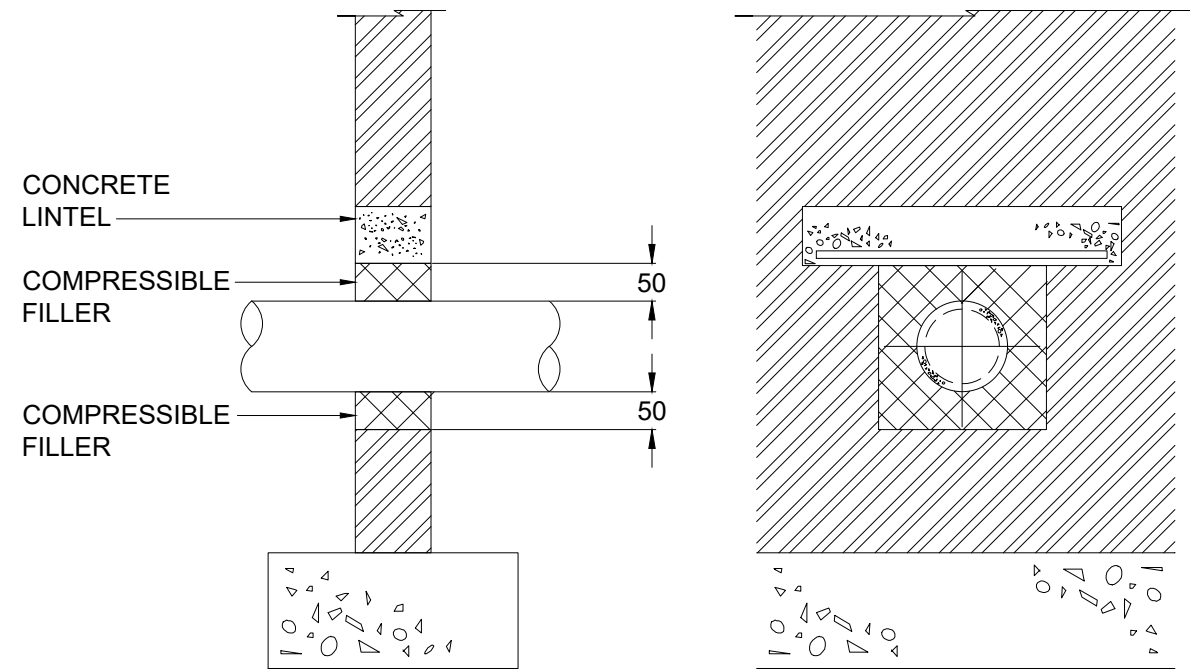
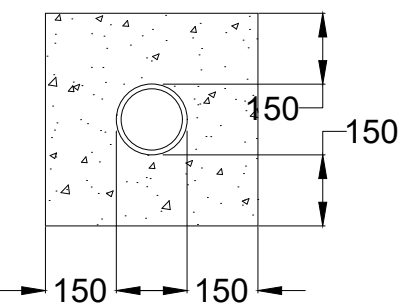


FIGURE B.27 PROTECTION OF PIPES PENETRATING SINGLE LEAF BOUNDARY WALLS

NOT TO SCALE

P01	21.06.24	ISSUED FOR TENDER	MR	APD
Rev	Date	Amendment		

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Project: MANCHESTER NICHOLLS

Client: POWERLEAGUE FIVES LTD

Drawing Title: DRAINAGE DETAILS 2/2

JB	CB	CB
MJM Ref: 8946	Scale: VARIES	Sheet Size: A1
Revision Status: P01	Suitability Status: S2	Date: AUG 24

Suitability Description: INFORMATION

Drawing Reference: Project - Originator - Zone - Level - File Type - Discipline - Number

8946-MJM-XX-XX-DR-C-9401

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Appendix G
LLFA Comments 17/09/24

Application details:	Application number: CDN/24/0785 Proposal: Discharge of condition 13 (surface water drainage) attached to planning permission referenced 139661/FO/2024. Location: Powerleague Manchester Nicholls, Nicholls Community Sports Ground, Dalberg Street, Manchester, M12 6BN Applicant: Mr Andrew Bell, Powerleague Fives Ltd
-----------------------------	--

LLFA Comments 17/09/2024

The following Information has been considered:

Planning Portal uploads:	20/08/2024
Further submission emails:	NA
Previous CDN attempts to discharge the Condition:	NA

Condition number	13
Decision Notice	139661/FO/2024

Decision Notice Clause	Contained in submission	Approvable standard	Further information required:	MJM Comments
Prior to the commencement of the development hereby approved, a surface water drainage layout for the development site shall be submitted for approval in writing by the City Council, as Local Planning Authority. This shall include the following:				
For surface water connections, evidence of agreement in principle from the relevant authority/service provider is required to ensure there is adequate spare capacity in the existing system taking future development requirements into account. An email of acceptance of proposed new connection will suffice.	Y	Y	Please note the system can be designed for a discharge of 5 l/s as per United Utilities acceptance.	Noted flow rates for the flow control have been increased to 5 l/s
Details of surface water attenuation that offers a reduction in surface water runoff rate in line with the Manchester Trafford and Salford Strategic Flood Risk Assessment to greenfield runoff rate.	Y	Y		
Finalised surface water drainage layout including all components, levels, connectivity and proposed	Y	N	<standard comment: The applicant must present a consistent package to discharge this condition (Including all layouts and calculations). The layout and	Pipe references have been added to the plan to ensure the layout and calculations can be referenced with one another.

Manchester City Council LLFA: CDN consultation

overland flow routes for extreme events.			calculations must be jointly updated to account for any edits required. When preparing a resubmission, the applicant must ensure that the drainage layout and hydraulic calculations correspond, and that they can be cross-referenced for checks. This includes layout annotations and schedule printouts. >	
Hydraulic calculations of the proposed drainage system, including all design parameters. Results must demonstrate no flooding in the 1 in 30 and no flooding of buildings for the 1 in 100 + 45% Climate Change.	Y	N	The storage system used in the layout is a subbase which does not match with the type of storage system used in the hydraulic calculation which is a tank. Please resubmit the calculations to match the layout with appropriate porosity values.	Calculations have been updated to suit the granular sub base material with a 30% void ratio.
Where flows less than 5 l/s are proposed, a blockage risk assessment must be undertaken. If the risk cannot be adequately managed, a higher minimum discharge rate should be considered / agreed with relevant authority.	Y	Y		
A plan indicating easements. SuDS features (including attenuation tanks) should be appropriately positioned, including a 2.5m easement from the existing highway and a 5m easement from any dwellings, guaranteeing accessibility for future maintenance and contingency for asset failure. This practice is in accordance with SuDS Manual (C753).	Y	Y		

Manchester City Council LLFA: CDN consultation

Construction details of flow control and SuDS components.	Y	N	Please provide construction details of the type of storage system used.	Annotated cross section added to the drainage layout
Details of how the scheme shall be maintained and managed after completion	Y	N	Please provide details on how the storage system is maintained and managed.	Additional information added to the maintenance schedule.

% Complete submission:	100%
% At approvable standard:	50%
Refusal trigger points: Submission 1 = less than 20% complete. Submission 2 = not 100% approvable standard.	

LLFA Recommendation:	Further information required (as detailed above).
-----------------------------	--

Appendix G
LLFA Comments 17/10/24

Application details:	Application number: CDN/24/0785 Proposal: Discharge of condition 13 (surface water drainage) attached to planning permission referenced 139661/FO/2024. Location: Powerleague Manchester Nicholls, Nicholls Community Sports Ground, Dalberg Street, Manchester, M12 6BN Applicant: Mr Andrew Bell, Powerleague Fives Ltd
-----------------------------	--

LLFA Comments 17/10/2024

The following Information has been considered:

Planning Portal uploads:	20/08/2024 – 26/09/2024
Further submission emails:	From: Ellie Knowles <Ellie.Knowles@manchester.gov.uk> Sent: 14 October 2024 16:35 To: Flood Risk Management <floodriskmanagement@manchester.gov.uk> Subject: CDN/24/0785
Previous CDN attempts to discharge the Condition:	NA

Condition number	13
Decision Notice	139661/FO/2024

Decision Notice Clause	Contained in submission	Approvable standard	Further information required:	MJM Comments
Prior to the commencement of the development hereby approved, a surface water drainage layout for the development site shall be submitted for approval in writing by the City Council, as Local Planning Authority. This shall include the following:				
For surface water connections, evidence of agreement in principle from the relevant authority/service provider is required to ensure there is adequate spare capacity in the existing system taking future development requirements into account. An email of acceptance of proposed new connection will suffice.	Y	Y		
Details of surface water attenuation that offers a reduction in surface water runoff rate in line with the Manchester Trafford and Salford Strategic Flood Risk Assessment to greenfield runoff rate.	Y	Y		
Finalised surface water drainage layout including all components, levels, connectivity and proposed overland flow routes for extreme events.	Y	N	standard comment: The applicant must present a consistent package to discharge this condition (Including all layouts and calculations). The layout and calculations must be jointly updated to account for any edits required. When preparing a resubmission, the applicant must ensure that the	Noted the note to the pitches has been updated to suit the same volume as the calculations

Manchester City Council LLFA: CDN consultation

			drainage layout and hydraulic calculations correspond, and that they can be cross-referenced for checks. This includes layout annotations and schedule printouts. Please see below.	
Hydraulic calculations of the proposed drainage system, including all design parameters. Results must demonstrate no flooding in the 1 in 30 and no flooding of buildings for the 1 in 100 + 45% Climate Change.	Y	N	We do accept the update in the design with porosity 30 %, but still the volume in the layout and calculations does not match. Please resubmit the layout and calculations with matching volume.	Noted the note to the pitches has been updated to suit the same volume as the calculations
Where flows less than 5 l/s are proposed, a blockage risk assessment must be undertaken. If the risk cannot be adequately managed, a higher minimum discharge rate should be considered / agreed with relevant authority.	Y	Y		
A plan indicating easements. SuDS features (including attenuation tanks) should be appropriately positioned, including a 2.5m easement from the existing highway and a 5m easement from any dwellings, guaranteeing accessibility for future maintenance and contingency for asset failure. This practice is in accordance with SuDS Manual (C753).	Y	Y		
Construction details of flow control and SuDS components.	Y	Y		

Manchester City Council LLFA: CDN consultation

Details of how the scheme shall be maintained and managed after completion	Y	Y		
% Complete submission:	100%			
% At approvable standard:	75%			
Refusal trigger points: Submission 1 = less than 20% complete. Submission 2 = not 100% approvable standard.				

LLFA Recommendation:	Refusal.
-----------------------------	-----------------