

Citylabs 4.0

125592/FO/2019: Erection of a seven storey building comprising flexible Office (Use Class B1a), Research and Development (Use Class B1b) and Educational Space (Use Class D1), together with ground floor ancillary Retail uses (Use Classes A1 and A3), in addition to associated cycle parking, accessible car parking, landscaping, provision of plant and servicing and related access and highway's works, and other associated works (associated advert application reference 125593/AO/2019)

Condition 10 Drainage Scheme

Citylabs 4.0 - Drainage Maintenance Plans

Citylabs

Citylabs4.0 - Drainage Maintenance Plan

Reference: L025-ARU-90-01.00-D-C-000004 – Drainage Maintenance Plan

P01 | 10 October 2024

Citylabs 4.0 - Drainage Maintenance Plans

Job number 267661-30

Ove Arup & Partners Limited
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Document Verification

Project title Citylabs4.0 - Drainage Maintenance Plan
Document title
Job number 267661-30
Document ref
File reference

Revision	Date	Filename	L025-ARU-90-01.00-D-C-000004 – Drainage Maintenance Plan'		
P01	10/10/2024	Description	For Information		
			Prepared by	Checked by	Approved by
		Name	Nehla Farhan	Emily Stoddart / Ewa Fabianksa Tom Harrison	
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		Filename			
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		Name			
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		Filename			
		Description			
			Prepared by	Checked by	Approved by
		Name			
		Signature			

Issue Document Verification with Document ☒

Contents

1.1	Maintenance	1
1.1.1	Basis of Design and Maintenance	1
1.1.2	Access	2
1.1.3	SuDS Maintenance Summary	2
1.2	SuDS Scheme Checklist	3
1.2.1	Maintenance Inspection Checklist	3
1.2.2	Additional Maintenance	1

1.1 Maintenance

The proposed drainage system outlined in this section must be managed and appropriately maintained according to the sections below. It considers necessary maintenance actions for the SuDS drainage components in the system (section 1.1.6) to sustain efficiency and long-term performance of the system.

The maintenance plan specifies the frequency of routine tasks necessary for the day-to-day management of surface water, flood prevention, flow regulation, and water quality protection. Additionally, site activities that may place extra strain on the network, such as future construction works, are considered and may necessitate additional maintenance, as discussed in section 1.1.7 Additional Maintenance.

The SuDS at Citylabs 4.0 are designed to be easily maintained, involving:

- General Visual Inspections: period walks around the site to identify any areas of ponding or accumulating water
- Routine Care: Daily activities such as collecting litter, mowing the grass, and inspecting the inlets and outlets where water flows in and out of the SuDS features.
- Periodic Tasks: Occasionally managing pond vegetation and removing any accumulated silt from the SuDS features.
- Vegetation Management: Frequency to be adjusted to suit seasonal growth periods and requirements of planting specification
- Silt removal: following major rainfall events, an inspection of surface features (gulleys, slot drains and channels) should inform sweeping and jetting to remove accumulated silt deposits
- Drainage inspections: Quarterly visual inspection inside chambers and manholes, requiring the removal of covers, to identify the presence of blockages and accumulation of water
- Repair Work: Addressing any necessary repairs to ensure the system remains functional.

1.1.1 Basis of Design and Maintenance

Surface and Combined Network (Pipes and Chambers)

The surface water network (S1.000 – S1.006) which connects to the combined network necessitates consistent and thorough maintenance to ensure its optimal functionality. Regular upkeep is essential to prevent any blockages that could hinder the flow of water through the system. Such obstructions can significantly diminish the system's capacity to convey water, potentially leading to flooding in areas upstream of the blockage.

Oversized Pipe

Oversized precast concrete pipe to act as attenuation storage volume during heavy rainfall events is proposed within the surface water network to provide surface water storage for the Citylabs 4.0. Discharge from the oversized pipe is controlled using a Hydrobake flow control in the chamber (SMH5) downstream of the oversized pipe, this is designed to restrict the discharge- from the site to the discharge rate of 10 l/s (as per the agreement with United Utilities) and to reduce the risk of flooding. The hydraulic design of the network is based on the specified attenuation volume; therefore, the maximum volume of the oversized pipe should be maintained as much as possible through regular maintenance. Any evidence of siltation or other debris in the oversized pipe should be removed as soon as they are identified in accordance with the manufacturer's requirements.

Geocellular Tank

Geocellular structures are a type of attenuation and infiltration system, intended to store surplus water when heavy rainfall causes the water volume from a site to be too high to be immediately directed into sewers or off-site drainage. Geocellular tanks will be equipped with an access module, allowing for surface entry to

facilitate remote camera inspections, as well as flushing and rodding operations. The build-up of silt will reduce the porosity of Geocellular tanks, necessitating regular maintenance to maintain their high porosity.

Back Drop and Rodding access

A backdrop is used to prevent step gradients in drainage pipes, which can hinder the flow's ability to collect silt. A rodding eye provides access for cleaning and is typically installed at bends where pipes converge, facilitating system maintenance.

Inlet and Outlet Structures

Inlet and outlet structures typically consist of conveyance pipes equipped with mesh guards. It's crucial to keep these structures clear of obstructions to ensure the smooth flow of water through SuDS. Monthly inspections should be conducted to remove any silt from slab aprons and debris.

1.1.2 Access

Maintaining the drainage system components may necessitate the use of large equipment or vehicles. Hathersage road provides an accessible route for heavy machinery onto the site. An access road along the east and south side of the site from Hathersage Road allows maintenance vehicles to access drainage system components that require maintenance.

1.1.3 SuDS Maintenance Summary

		Frequency
1.0	Inlets and Outlets	
1.1	Inspect monthly, remove silt from slab aprons and debris.	Monthly
2.0	Hard surfaces	
2.1	Sweep all paving regularly, sweep and suction brush permeable paving in autumn after leaf fall.	Monthly
3	Inspection and control chambers – not applicable	
3.1	Remove the cover and inspect to ensure water is flowing freely and the exit route is clear of obstructions. Clear away any debris and silt. Perform this inspection after the autumn leaf fall.	Quarterly
3.2	CCTV survey of drainage lines to ensure water is able to flow freely through the network and that no scour, encrustation or structural collapse has occurred within the drainage network	Annually
4	Inspect SuDS system regularly to check for damage or failure Undertake remedial work as required	

1.2 SuDS Scheme Checklist

SuDS schemes incorporate landscape features and control structures to manage runoff as it flows to site outfalls. The following lists the SuDS components and additional features that are be present on a site.

- Bioretention Area: landscaping in south side of the site allowing surface water from road to shed surface water onto soft landscaping

1.2.1 Maintenance Inspection Checklist

The checklist provided should be reviewed and added to as appropriate, to suit any changes to the external drainage system.

General Information			
Site Name / ID			
Site Location and co-ordinates			
Elements forming the SuDS scheme		Reference drawing(s)	
Inspection Frequency		Reference specification	
Type of development		Purpose of parts of the scheme	

Inspection Date				
	Details	Y/N	Action Required	Date Completed
General Inspection Items				
Is there any evidence of erosion, channeling, ponding (where not desirable) or other poor hydraulic performance?				
Is there any evidence of accidental spillages, oils, poor water quality, odours or nuisance insects?				
Have any health and safety risks been identified to either the public or maintenance operatives?				
Is there any deterioration oin the surface of permeable or porous surfaces (e.g. rutting, spreadhing of blocks or signas of ponding water)?				
Silt/sediment accumulation				
Is there any sediment accumulation at inlets (or other defined accumulation zones such as the surface of filter drains or infiltration basins and within proprietary devices)?				
If yes, state depth (mm) and extent.				
Is removal required?				
If yes, state waste disposal requirements and confirm that all waste management requirements have been complied with (consult environmental regulator).				
Is surface clogging visible (potentially problematic where water has to soak into the underlying construction or ground (e.g. underdraines swales or infiltration basins).				
Does paving require sweeping to remove silt?				
System blockages and litter build-up				
Is there evidence of litter accumulation in the system?				

If yes, is there a blockage risk?				
Is there any evidence of any other clogging or blockage of outlets or drainage paths?				
Vegetation and soft landscaping				
Is the vegetation condition satisfactory (densit, weed growth, coverage etc.)				
<i>To be checked against the approved landscaping maintenance regime.</i>				
Does any part of the system require weeding, pruning or mowing?				
<i>To be checked against the approved landscaping maintenance regime.</i>				
Is there any evidence of invasive species becoming established?				
If yes state action required.				
Infrastructure				
Is there any evidence of any accidental damage to the system (e.g. wheel ruts, broken access covers etc.)				
Is there any evidence of cross-connections or other unauthorised inflows?				
Is there any evidence of tampering with the flow controls?				
Are there any other matters that could affect the performance of the system in relation to the design objectives for hydraulic, water quality, biodiversity and visual amenity?				
Other observations				
Append any supporting information (e.g. photos).				
Suitability of current maintenance regime				
Continue as current				
Increase maintenance regime				
Decrease maintenance regime				
Next Inspection				
Proposed date for next inspection				

1.2.2 Additional Maintenance

To address additional maintenance for a drainage system, it's crucial to have a comprehensive plan that considers various factors and potential site activities. Here are some key aspects and possibilities for additional maintenance:

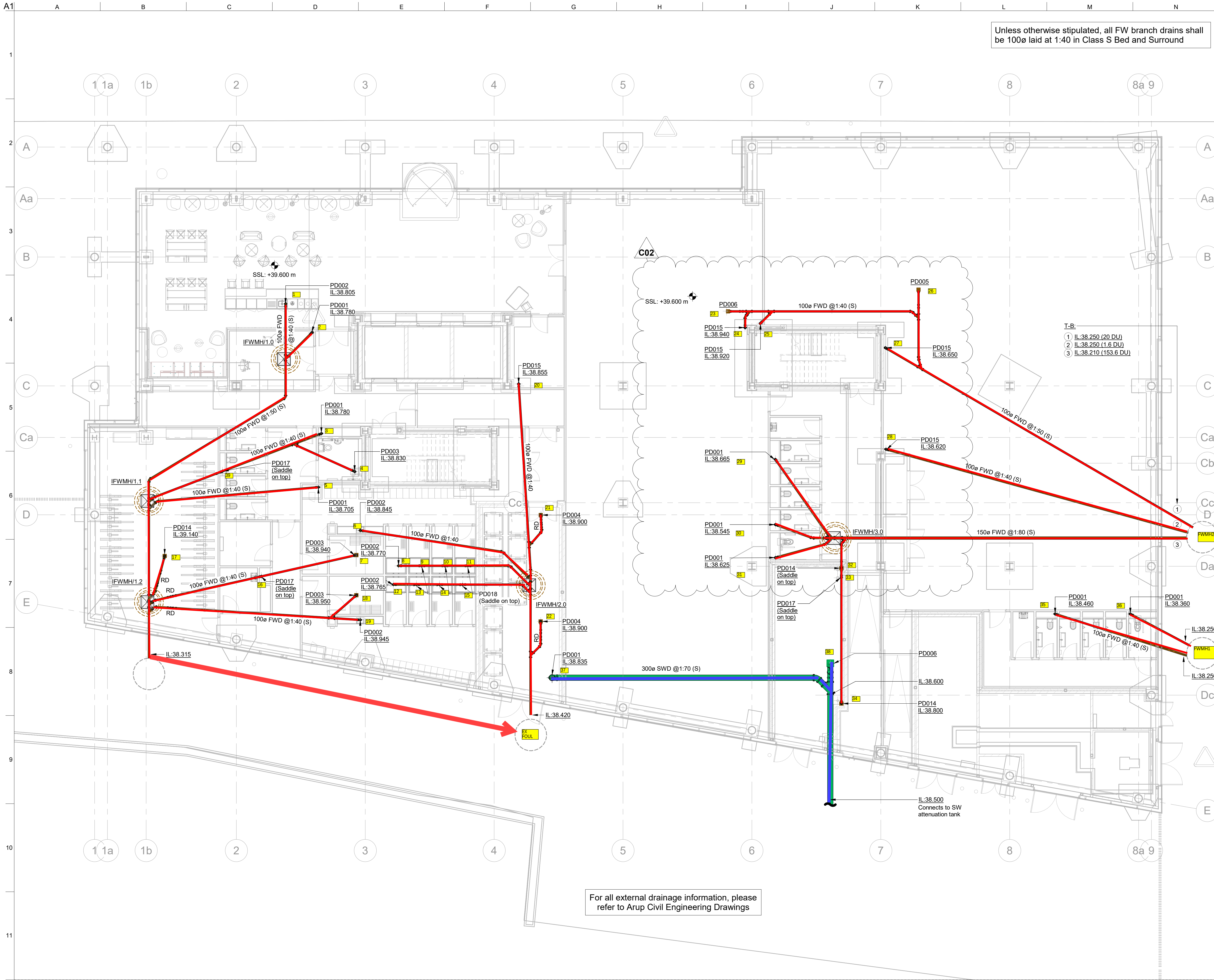
Key Aspects of Additional Maintenance

1. **Regular Inspections:** Schedule thorough inspections at least twice a year to identify any potential issues early. This helps in preventing minor problems from becoming major ones.
2. **Debris Removal:** Ensure that the drainage system is free from debris such as leaves, rubbish, and sediment. Regular cleaning can prevent blockages and maintain efficient water flow.
3. **Structural Repairs:** Check for any structural damage such as cracks or erosion in the drainage channels. Prompt repairs can prevent further deterioration and ensure the system remains effective.
4. **Monitoring Water Flow:** Monitor the water flow during heavy rains, as unusual pooling or slow drainage can signal a problem that needs attention. This issue is particularly common along the south side of the site, where landscaping directs additional surface water from the road into the soil, causing water to pool in the site's corners.

Factors Leading to Additional Maintenance

1. **Heavy Rainfall:** Areas with frequent heavy rainfall may require more frequent maintenance to handle the increased water volume and prevent flooding.
2. **Construction Activities:** Nearby construction can lead to increased debris and sediment in the drainage system, necessitating more frequent cleaning and inspections.
3. **Urbanisation:** Increased urbanisation can result in more surface runoff and greater demands on the drainage system. The site is encircled by buildings, except to the north beyond Hathersage Road, where a green area is located. Additionally, the site is less than 200 metres from Whitworth Park, which can absorb excess stormwater during heavy rainfalls.

Citylabs 4.0 - As Build Information



Unless otherwise stipulated, all FW branch drains shall be 100e laid at 1:40 in Class S Bed and Surround

- Notes**
1. This drawing shall be read in conjunction with all other relevant drawings and documents.
 2. This drawing is to be read in conjunction with the health and safety plan and hazard register.
 3. All dimensions illustrated are in mm, all levels in mAOD unless specified otherwise.
 4. Whilst every effort has been made to record the services on the site, unknown services may be located within the excavation area. Before works commence on site the Contractor is to carry out a full investigation to determine the location or underground services using ground penetrating radar and a CAT scan. Appropriate procedures shall be taken to avoid risk of electrocution.
 5. Unless otherwise stipulated, all FW branch drains shall be 100e laid at a gradient of 1/40.
 6. Refer to Below Ground Drainage Materials and Workmanship Specification for confirmation of all pipework and fittings specifications.
 7. Refer to drainage detail sheets for confirmation of all drainage connection arrangements.
 8. All drain pipe sizes illustrated on the General Arrangement drawing are nominal bore.
 9. The Contractor shall ensure that all drainage components are stored on site and installed in conjunction with the specified manufacturers requirements.
 10. For confirmation of drainage pipework and manhole testing requirements, please refer to Arup Below Ground Drainage Materials and Workmanship Specification.
 11. For all external drainage information please refer to Arup Civil Engineering Drawings, Details and Specifications.
 12. All below slab drainage pipework and fittings shall be obtained from one manufacturer only. Joints shall be made using gaskets supplied by the pipework manufacturer only.
 13. All drainage ring seal adaptors shall be specified so they do not degrade when coming into contact with the drainage discharge that passes through the pipe or external ground conditions.
 14. All pipes and duct ends shall be temporarily plugged with proprietary seals/end caps supplied by the pipework manufacturer.
 15. Expansion couplings within drainage pipelines shall be installed in accordance with the specified pipework manufacturers requirements.
 16. Where drains pass through structures a flexible joint shall be positioned 150mm and 750mm from the face of the structure.

Legend

FWD Foul Water Drain
SWD Surface Water Drain
IFWMH Foul Water Manhole
SWMH Surface Water Manhole
BD Backdrop
RD Ramp drop
?e ?WD @ 1:XX (?) Bedding Type
Drain Gradient
Drainage Network Foul Water or Surface Water
Drainage pipe size (nominal bore)

C02	19/01/24	MP	GW	GH
Branch No.2 omitted from IFWMH3.0 and re-routed.				
C01	01/11/23	JD	GW	GH
Issued for Construction				
P4	22/05/23	JD	GW	GH
Below slab drainage updates				
P3	22/04/22	CW	GW	ML
Issued for Work Stage 4				
Rev	Date	By	Chkd	Appd

ARUP

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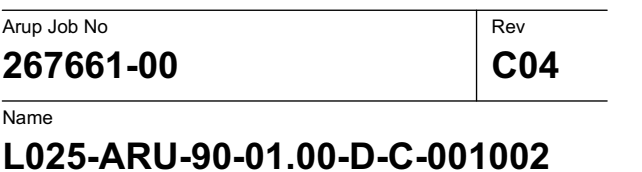
Client
Citylabs 4.0 Ltd

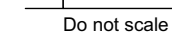
Project Title
Citylabs 4.0

Drawing Title
**Below Ground Drainage
Layout
Ground Floor**

Scale at A1 NTS
Role Public Health
Suitability A1 - Issued for Construction

Arup Job No 267661	Rev C01
Name L025-ARU-52-01.GF-D-P-002501	





Notes
1. All dimensions are in mm, all levels in mAOD, unless specified otherwise.
2. Document Status: The drawing is subject to further design development, revision or replacement as design progresses.
3. This layout is based on the following survey information: <ul style="list-style-type: none"> - Topographical Survey drawing '22C168' rev 001 undertaken by Survey Operations; dated June 2022. - Drainage CCTV Survey report '12703a SURVEY OPS CITY LABS MANCHESTER' produced by Underground Surveys; dated December 2019. - Utility GPR Survey drawing '19F248' rev 001 produced by Survey Operations; dated August 2019. - Outfall trial hole surveys undertaken by GMI; dated 17-04-2023.
4. This layout is based on the following drawings: <ul style="list-style-type: none"> - Landscaping General Arrangement drawing '184-LYR-XX-ZZ-DWG-1-1001' rev9 dated 31-03-2023. - Ground Floor Architectural General Arrangement drawing '6312-SRA-XX-00-DR-A-20100 rev P18' - S278 Highways Layout General Arrangement drawing '074034-CUR-00-XX-DR-D-75100 rev P01' dated 09-01-2020.
5. This layout is based upon: <ul style="list-style-type: none"> - WS4 Arup Structural Foundation Plan 'CLAB-ARUP-04-F-GA-S-10-4F01' - WS4 Arup PH Below Slab Drainage Design 'CLAB-ARUP-04-GF-DR-P-2501 rev P03' - WS4 Arup PH Rainwater Disposal Performance Specification 'P-SPEC-002'
6. Approximate Site Boundary is taken from Sheppard Robson Location Plan, supplied 19th January 2023; drawing reference '6312-SRA-XX-XX-DR-A-00001 P02 dated 18-01-23.
7. Refer to manhole schedule L025-ARU-90-01.00-D-C-001007 for details on invert levels and pipe connections.
8. Refer to the following documents for more information: <ul style="list-style-type: none"> - L025-ARU-90-01.00-D-C-000002 - Drainage Strategy and FRA - L025-ARU-90-01.00-D-C-000003 - Geocellular Performance Specification - L025-ARU-90-01.00-D-C-000001 - Infrastructure Works Specification
9. Setting out for building drainage connections provided to coordinate and inform the construction of external drainage only. Refer to the latest Below Slab Drainage construction information for the setting out of below slab drainage connections.

<h1>ARUP</h1> <p>6th Floor, 3 Piccadilly Place Manchester, M1 3BN Tel +44 (0)161 228 2331 www.arup.com</p>	
Client GMI Construction Group	
Project Title Citylabs 4.0	
Drawing Title External Works Drainage Detailed GA Sheet 2	
Scale at A1 1:100	
Role Civils	
Suitability - S4 - Suitable for Construction	
Arup Job No 267661-00	Rev C04
Name L025-ARU-90-01-00-D-C-001003	

Citylabs 4.0 - Photographic Evidence





Site Inspection Report

Project Overview

Our Reference:	OPP-075429-Building Control
Additional service:	None
Site Address:	City Labs 4.0, Hathersage Road, Manchester, M13 0BH
Description of Works:	Construction of a mixed use office and lab building including pile foundations, steel frame clad in aluminium feature cladding and curtain walling, steel deck and concrete pour upper floors, inverted ballasted roof
Lead Surveyor:	Geoff Wood
Customer Name:	Bruntwood Construction Ltd
Client Name:	Bruntwood Construction Ltd

Site Visit Details

Visit Description:	Drainage
Date and Time Arrived:	11/01/2024 15:15
Weather:	Dry
Time on Site:	30 minutes
Surveyor:	Tom Casson
Visit Conducted with:	Drainage subcontractor Ryan Adana
Visit Type:	Others
Inspections Made:	Drainage
Elements Inspected:	

General Site Visit Observations

Review of drainage specification and drawings and work installed to date

Drainage being installed using 110mm clay pipe to runs with a mixture of bedding either shingled bedding or short runs are encased in concrete as are the long radius bends at the base of stacks. These have the appropriate rubber sockets. Concrete ringed man holes are being installed and the benching and half cut round pipes appears to be of high quality install. Air testing to be witnessed next inspection but as far as reasonably can be ascertained the work appears satisfactory and in line with the drawings and specification. Understand there has been communication with the structural engineer where changes have been proposed. Lots of on site QA taking place.

Otherwise the building superstructure appears to be nearing completion in terms of the steel frame install but floors still to be completed

Note: This inspection report is restricted to requirements covered by Building Regulations current at that time. It does not constitute evidence that the Building Regulations have been satisfied until a Completion/Final Certificate has been issued for the project. It remains the responsibility of the person carrying out the work to ensure that the work complies with the Building Regulations.

Please note it is a requirement of the Approved Inspector regulations that we release the final certificate, subject to compliance having been achieved, within 4/8 weeks of occupation (Commercial/Domestic). If not, our initial notice

could be cancelled and the Local Authority could take control of the work. Please ensure we receive sufficient notification of the completion and all commissioning certificates / outstanding information within this time frame.

Site Visit Photos



Site visit photos -1



Site visit photos -10



Site visit photos -11



Site visit photos -12



Site visit photos -13



Site visit photos -14



Site visit photos -2



Site visit photos -3



Site visit photos -4



Site visit photos -5



Site visit photos -6



Site visit photos -7



Site visit photos -8



Site visit photos -9

Site Inspection Report

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Lead Surveyor:	Geoff Wood
Customer Name:	Bruntwood Construction Ltd
Client Name:	Bruntwood Construction Ltd

Site Visit Details

Visit Description:	Facade
Date and Time Arrived:	21/02/2024 10:30
Weather:	Wet and Raining
Time on Site:	60 minutes
Surveyor:	Tom Casson
Visit Conducted with:	Cain
Inspections Made:	Oversite
Elements Inspected:	

General Site Visit Observations

Second inspection of the oversite for the ground floor slab again clear evidence of, Hardcore, Sand Blinding, DPM, Insulation, separating layer before they will install reinforcement and the slab pour. noted the joints in the DPM which appear to be connected with specialist tape and again good detailing around the base of the columns and upstands at the perimeter.

More of the facade is no in position, this has been positioned with brackets which appear to be as per the drawing (reviewed in office after) Question regarding install of cavity barrier. This resolved upon review and discussion in site office as I understand Siderise product to be used under compression, they are going to invite siderise down to inspect the first install and i have asked to also attend then.

Otherwise started to review the lift shaft blockwork install, this appears satisfactory but some movement joints visible where interface of steel and blockwork so need to ensure this has adequate fire resistance (possibly covered with plasterboard but TBC).

Note: This inspection report is restricted to requirements covered by Building Regulations current at that time. It does not constitute evidence that the Building Regulations have been satisfied until a Completion/Final Certificate has been issued for the project. It remains the responsibility of the person carrying out the work to ensure that the work complies with the Building Regulations.

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could be cancelled and the Local Authority could take control of the work. Please ensure we receive sufficient notification of the completion and all commissioning certificates / outstanding information within this time frame.

Site Visit Photos



Site Visit Photos



Site Visit Photos



Site Visit Photos



Site Visit Photos



Site Visit Photos



Site Visit Photos



Site Visit Photos



Site Visit Photos



Site Visit Photos

Manholes & Chambers QA - L025

Form Reference	F1.2116583
Owned By	Peter Duffy (Adana Construction)
Date	05/05/2023 11:53:02
Status	In Progress
Project Name	L025 - Citylabs 4.0
Location	FMH7>Drainage & Manholes>Substructure>Site QA

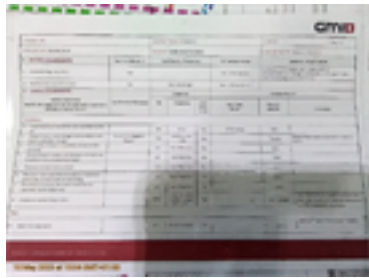
Form Location	FMH7
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Test & Inspection Plan

#	Check Item	Subcontractor Yes / No	Document attached to this form?
1	ITAP agreed and in place	Yes	Yes

Images

#1

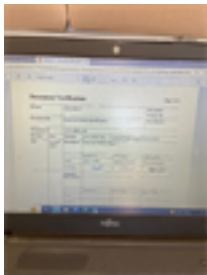


[15/05/2023 14:12:40](#)



[15/05/2023 14:12:41](#)

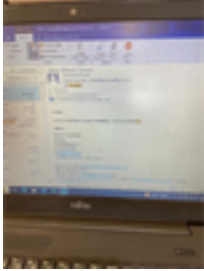
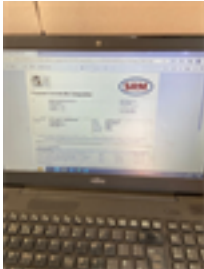
Prepare & Plan

#	Check Item	No. & Revision	Doc / DWG / Spec (Photo)	Comments	Subcontractor Check	GMI Check
1	Confirm current Specification	P01CIV-SPEC-001	 <p>05/06/2023 13:57:42</p>  <p>08/06/2023 15:01:59</p>  <p>08/06/2023 15:01:59</p>			

#	Check Item	No. & Revision	Doc / DWG / Spec (Photo)	Comments	Subcontractor Check	GMI Check
2	Confirm current Drawing	L025-ARU-90-01.00-D-C-001003	 05/06/2023 13:57:59  08/06/2023 15:01:22			

Installation Checks 1							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check and record the excavation size and depth and adequacy of shoring - ATTACH EVIDENCE (Marked up drawing)	Yes	N/A	 05/06/2023 13:58:38			

Installation Checks 2

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the base construction is to the correct size and depth and the grade of concrete is as specified - ATTACH EVIDENCE (Delivery Notes)	Yes	Photo	 09/06/2023 14:16:24  09/06/2023 14:16:25  09/06/2023 14:16:25			

Installation Checks 3

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the channels are fully bedded and benched	Yes	Photo	 16/05/2023 11:10:20			

Installation Checks 4

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the main channel has a fall and check the alignment of all channels and all branches are installed	Yes	Photo	 16/05/2023 11:10:48			

Installation Checks 5							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the step irons are in line and access is achievable	Yes	Photo	 16/05/2023 11:11:10			

Installation Checks 6							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	For concrete ring shafts, check the size of the shaft, the thickness and concrete grade of the surround and that the specified joint strip or sealant between all ring joints	Yes	N/A	 09/06/2023 14:17:03			

Installation Checks 7							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the cover slab/biscuit is fully bedded on to the shaft and that the access hole is aligned to suit step irons	Yes	Photo	 22/05/2023 13:01:15  22/05/2023 13:01:30			

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Ensure that none of the bungs used for testing have been left in place. This is a recurring issue and has to be checked for all manholes	Yes	N/A	 09/06/2023 14:17:16			

Testing Checks 4							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the backfill operation is carried out in accordance with the specification	Yes	N/A	 09/06/2023 14:17:23			

Testing Checks 5							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the cover is as specified i.e. suitable for the correct loading and is orientated correctly and to the correct level - ATTACH EVIDENCE (Delivery Notes & Marked up Drawing)						

HOLD POINT - Sign off required							
#	Check Item	Subcontractor Signature			GMI Signature		
1	Have all of the above been completed and signed off before proceeding?						

Closure						
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A
1	Works adequately protected	Yes	Photo	 12/06/2023 12:58:01 12/06/2023 12:58:14	temporary cover	
2	Work area cleaned	Yes	Photo	 12/06/2023 12:58:33		

Summary Comments	
Contractor Sign Off	
Date & Time	05/05/2023 12:53:02
GMI Final Sign Off	
Date & Time.	05/05/2023 12:53:02

Form Status Audit Trail					
Status	Date	Signed By	Signature	Comments	
Not Started	05/05/2023 11:53:02	Peter Duffy (Adana Construction)	-----		
In Progress	11/05/2023 12:05:54	John Pierre (GMI Construction)	-----		

Manholes & Chambers QA - L025

Form Reference	F311687.3
Owned By	Harry Noon (Adana Construction)
Date	15/05/2023 12:52:38
Status	In Progress
Project Name	L025 - Citylabs 4.0
Location	FMH4>Drainage & Manholes>Substructure>Site QA

Form Location	FMH4
---------------	------

Test & Inspection Plan

#	Check Item	Subcontractor Yes / No	Document attached to this form?
1	ITAP agreed and in place	Yes	Yes

Images

#1



[15/05/2023 12:55:40](#)

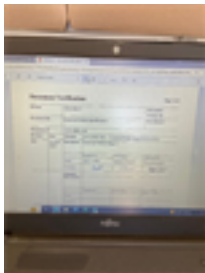


[15/05/2023 13:02:20](#)



[15/05/2023 13:02:49](#)

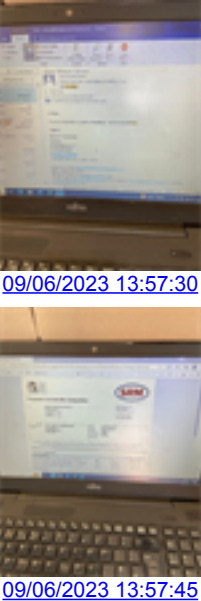
Prepare & Plan

#	Check Item	No. & Revision	Doc / DWG / Spec (Photo)	Comments	Subcontractor Check	GMI Check
1	Confirm current Specification	PO1CIV-SPEC-001	 <p>08/06/2023 14:31:41</p>  <p>08/06/2023 14:31:41</p>			
2	Confirm current Drawing	L025-ARU-90-01.00-D-C-001003				

Installation Checks 1

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check and record the excavation size and depth and adequacy of shoring - ATTACH EVIDENCE (Marked up drawing)	Yes	Photo	 <p>08/06/2023 13:35:41</p>  <p>12/06/2023 12:39:37</p>  <p>12/06/2023 12:39:38</p>  <p>12/06/2023 12:39:38</p>		Yes	

Installation Checks 2

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the base construction is to the correct size and depth and the grade of concrete is as specified - ATTACH EVIDENCE (Delivery Notes)	Yes	Photo				

Installation Checks 3

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the channels are fully bedded and benched	Yes	Photo				

Installation Checks 4

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the main channel has a fall and check the alignment of all channels and all branches are installed	Yes	Photo	 <p>09/06/2023 13:07:25</p>  <p>09/06/2023 13:07:25</p>  <p>09/06/2023 13:07:26</p>  <p>09/06/2023 13:07:26</p>  <p>09/06/2023 13:07:26</p>			

Installation Checks 5							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the step irons are in line and access is achievable	Yes	Photo				

Installation Checks 6							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	For concrete ring shafts, check the size of the shaft, the thickness and concrete grade of the surround and that the specified joint strip or sealant between all ring joints	Yes	N/A				

Installation Checks 7							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the cover slab/biscuit is fully bedded on to the shaft and that the access hole is aligned to suit step irons	Yes	Photo				

Installation Checks 8

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that there is at least 2 courses of brickwork from the cover slab at the manhole cover and frame						

HOLD POINT - Sign off required before proceeding

#	Check Item	Subcontractor Signature	GMI Signature
1	Have all of the above been completed and signed off before proceeding?	 H.Noon (Adana Construction) 08/06/2023 14:53:11	

Testing Checks 1

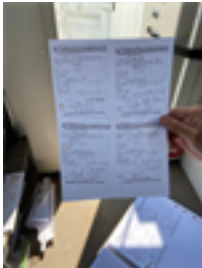
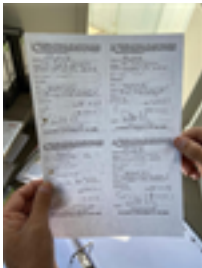
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Carry out water seepage test to the manhole/chamber as per the specification - ATTACH EVIDENCE (Test Results)						

Testing Checks 2

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Obtain sign off for the manhole chamber from the Structural Engineer/Building Control - ATTACH EVIDENCE (Correspondence)						

Testing Checks 3

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Ensure that none of the bungs used for testing have been left in place. This is a recurring issue and has to be checked for all manholes	Yes	N/A	 09/06/2023 14:08:47			

Testing Checks 4							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the backfill operation is carried out in accordance with the specification	Yes	N/A	 09/06/2023 13:08:38  09/06/2023 13:08:38  09/06/2023 13:08:38  09/06/2023 13:08:38			

Testing Checks 5							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the cover is as specified i.e. suitable for the correct loading and is orientated correctly and to the correct level - ATTACH EVIDENCE (Delivery Notes & Marked up Drawing)						

HOLD POINT - Sign off required			
#	Check Item	Subcontractor Signature	GMI Signature
1	Have all of the above been completed and signed off before proceeding?		

Closure						
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A
1	Works adequately protected	Yes	Photo	 12/06/2023 12:46:24	manholes have temporarily been covered	
2	Work area cleaned	Yes	Photo	 12/06/2023 12:47:07		

Summary Comments	
Contractor Sign Off	
Date & Time	15/05/2023 13:52:00
GMI Final Sign Off	
Date & Time.	15/05/2023 13:52:00

Form Status Audit Trail				
Status	Date	Signed By	Signature	Comments
Not Started	15/05/2023 12:52:38	Harry Noon (Adana Construction)	-----	
In Progress	15/05/2023 14:02:03	Harry Noon (Adana Construction)	-----	

Manholes & Chambers QA - L025

Form Reference	F311687.5
Owned By	Harry Noon (Adana Construction)
Date	15/05/2023 14:09:44
Status	In Progress
Project Name	L025 - Citylabs 4.0
Location	FMH2>Drainage & Manholes>Substructure>Site QA

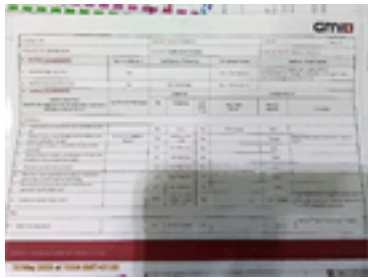
Form Location	FMH2
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Test & Inspection Plan

#	Check Item	Subcontractor Yes / No	Document attached to this form?
1	ITAP agreed and in place	Yes	Yes

Images

#1



[15/05/2023 14:10:04](#)



[15/05/2023 14:10:04](#)

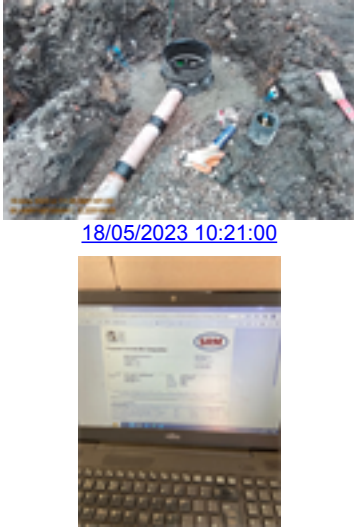
Prepare & Plan

#	Check Item	No. & Revision	Doc / DWG / Spec (Photo)	Comments	Subcontractor Check	GMI Check
1	Confirm current Specification	P01CIV-SPEC-001	 <p>09/06/2023 13:39:42</p>  <p>09/06/2023 13:39:42</p>			
2	Confirm current Drawing	L025-ARU-90-01.00-D-C-001003	 <p>09/06/2023 13:39:53</p>			

Installation Checks 1

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check and record the excavation size and depth and adequacy of shoring - ATTACH EVIDENCE (Marked up drawing)	Yes	Photo	 <p>09/06/2023 14:38:26</p>  <p>12/06/2023 12:36:15</p>  <p>12/06/2023 12:36:16</p>  <p>12/06/2023 12:36:16</p>  <p>12/06/2023 12:36:16</p>			

Installation Checks 2

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the base construction is to the correct size and depth and the grade of concrete is as specified - ATTACH EVIDENCE (Delivery Notes)	Yes	Photo	 18/05/2023 10:21:00 09/06/2023 14:38:37			

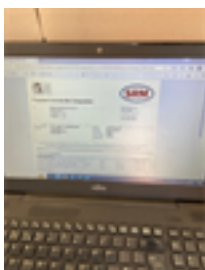
Installation Checks 3

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the channels are fully bedded and benched	N/A	N/A	 09/06/2023 14:38:59			

Installation Checks 4

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the main channel has a fall and check the alignment of all channels and all branches are installed	Yes	N/A	 09/06/2023 14:39:12			

Testing Checks 4

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the backfill operation is carried out in accordance with the specification	Yes	N/A	 09/06/2023 14:41:40  09/06/2023 14:41:40  09/06/2023 14:41:53			

Testing Checks 5

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the cover is as specified i.e. suitable for the correct loading and is orientated correctly and to the correct level - ATTACH EVIDENCE (Delivery Notes & Marked up Drawing)	Yes	N/A				

HOLD POINT - Sign off required

#	Check Item	Subcontractor Signature	GMI Signature
1	Have all of the above been completed and signed off before proceeding?		

Closure

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A
1	Works adequately protected					

Manholes & Chambers QA - L025

Form Reference	F311687.7
Owned By	Harry Noon (Adana Construction)
Date	15/05/2023 14:11:31
Status	In Progress
Project Name	L025 - Citylabs 4.0
Location	FMH5>Drainage & Manholes>Substructure>Site QA

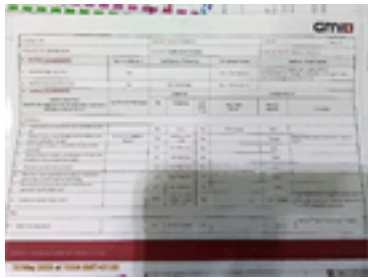
Form Location	FMH5
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Test & Inspection Plan

#	Check Item	Subcontractor Yes / No	Document attached to this form?
1	ITAP agreed and in place	Yes	Yes

Images

#1

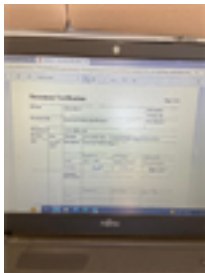


[15/05/2023 14:11:45](#)



[15/05/2023 14:11:45](#)

Prepare & Plan

#	Check Item	No. & Revision	Doc / DWG / Spec (Photo)	Comments	Subcontractor Check	GMI Check
1	Confirm current Specification	P01CIV-SPEC-001	 <p>08/06/2023 14:54:28</p>  <p>08/06/2023 14:54:28</p>	N/A	Harry Noon	John Pierre
2	Confirm current Drawing	L025-ARU-90-01.00-D-C-001003		N/A	Harry Noon	John Pierre

Installation Checks 1

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check and record the excavation size and depth and adequacy of shoring - ATTACH EVIDENCE (Marked up drawing)	Yes	Survey	 09/06/2023 10:55:04	N/A	Yes	Yes

Installation Checks 2

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the base construction is to the correct size and depth and the grade of concrete is as specified - ATTACH EVIDENCE (Delivery Notes)	Yes	Photo	 09/06/2023 10:56:04  12/06/2023 12:48:09  12/06/2023 12:48:10	N/A	Yes	Yes

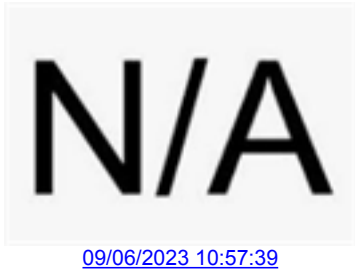
Installation Checks 3

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the channels are fully bedded and benched	Yes	Photo		N/A	Yes	Yes

Installation Checks 4

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the main channel has a fall and check the alignment of all channels and all branches are installed	Yes	N/A		N/A	Yes	Yes

Installation Checks 5							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the step irons are in line and access is achievable	Yes	Photo		N/A	Yes	Yes

Installation Checks 6							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	For concrete ring shafts, check the size of the shaft, the thickness and concrete grade of the surround and that the specified joint strip or sealant between all ring joints	Yes	N/A		N/A	Yes	No

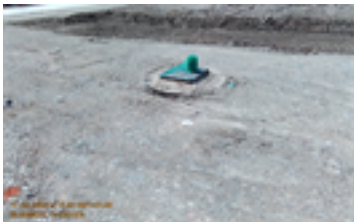
Installation Checks 7							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the cover slab/biscuit is fully bedded on to the shaft and that the access hole is aligned to suit step irons	Yes	Photo		N/A	Yes	Yes

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Ensure that none of the bungs used for testing have been left in place. This is a recurring issue and has to be checked for all manholes	Yes	N/A	 09/06/2023 14:01:13			

Testing Checks 4							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the backfill operation is carried out in accordance with the specification	Yes	N/A	 09/06/2023 14:01:31			

Testing Checks 5							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check the cover is as specified i.e. suitable for the correct loading and is orientated correctly and to the correct level - ATTACH EVIDENCE (Delivery Notes & Marked up Drawing)						

HOLD POINT - Sign off required							
#	Check Item	Subcontractor Signature			GMI Signature		
1	Have all of the above been completed and signed off before proceeding?						

Closure							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	
1	Works adequately protected	Yes	Photo	 12/06/2023 12:49:10	manholes have temporarily been covered		

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A
2	Work area cleaned	Yes	Photo	 12/06/2023 12:50:09		

Summary Comments	
Contractor Sign Off	
Date & Time	15/05/2023 15:11:00
GMI Final Sign Off	
Date & Time.	15/05/2023 15:11:00

Form Status Audit Trail				
Status	Date	Signed By	Signature	Comments
Not Started	15/05/2023 14:11:31	Harry Noon (Adana Construction)	-----	
In Progress	15/05/2023 14:11:52	Harry Noon (Adana Construction)	-----	

Below Ground Drainage QA - L025

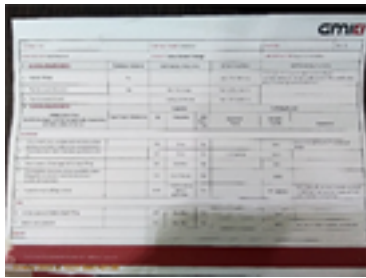
Form Reference	F311687.15
Owned By	Harry Noon (Adana Construction)
Date	15/05/2023 15:22:36
Status	Closed
Project Name	L025 - Citylabs 4.0
Location	F1.001>Drainage & Manholes>Substructure>Site QA

Form Location	F1.001
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Test & Inspection Plan			
#	Check Item	Subcontractor Yes / No	Document attached to this form?
1	ITAP agreed and in place	Yes	Yes

Images

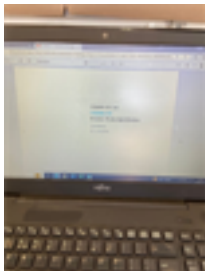
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[15/05/2023 15:22:58](#)



[15/05/2023 15:22:59](#)

Prepare & Plan						
#	Check Item	No. & Revision	Doc / DWG / Spec (Photo)	Comments	Subcontractor Check	GMI Check
1	Confirm current Specification	P01CIV-SPEC-001	 <p>09/06/2023 11:11:06</p>  <p>09/06/2023 11:11:06</p>		Harry Noon	Andy Young
2	Confirm current Drawing	L025-ARU-90-01.00-D-C-001003	 <p>09/06/2023 11:10:56</p>		Harry Noon	Andy Young

Pre Commencement Checks 1

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check Building Control, Adopting Authority and the Environmental Regulator have no adverse comments on the Structural Engineers drawings and specification - ATTACH EVIDENCE (Correspondence)	Yes	N/A	 15/07/2024 14:43:31		Yes	Yes

Pre Commencement Checks 2

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Camera survey of existing drainage carried out - ATTACH EVIDENCE (Survey / Video Records)	Yes	Photo	 14/06/2023 11:05:06  14/06/2023 11:05:06  14/06/2023 11:05:06  14/06/2023 11:05:06	done by gmi prior to start of the job	Yes	Yes

Pre Commencement Checks 3

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that a Temporary Works design has been carried out to deeper excavations and that the required shoring equipment is available - ATTACH EVIDENCE (Temporary Works Register)	N/A	N/A	 12/06/2023 14:47:21  12/06/2023 14:47:21  12/06/2023 14:47:22  12/06/2023 14:47:22  12/06/2023 14:47:22  12/06/2023 14:47:23		Yes	Yes

Testing Checks 1							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the air test carried out to the drainage run is accepted by Building Control - ATTACH EVIDENCE (Records)	Yes	Photo	 <p>09/06/2023 11:13:44</p> <p>09/06/2023 11:14:14</p>		Yes	Yes

Testing Checks 2							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Water test to pipe runs and manholes - ATTACH EVIDENCE (Records)	N/A	N/A	 <p>15/07/2024 14:47:16</p>		Yes	Yes

Testing Checks 3							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check pipe gradient/falls regularly. Agree frequency of checks with S/C - ATTACH EVIDENCE (Records)	Yes	Photo	 <p>09/06/2023 11:15:05</p>		Yes	Yes

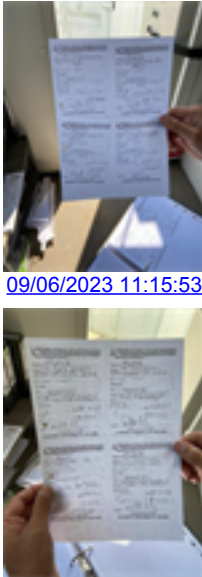
Testing Checks 4							
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#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check all pipework and manholes are secured to prevent unwanted debris	Yes	N/A	 15/07/2024 14:47:31		Yes	Yes

Testing Checks 5

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Ensure that none of the bungs used for testing have been left in place. This is a recurring issue and has to be checked for all runs	Yes	N/A	 15/07/2024 14:48:06		Yes	Yes

Testing Checks 6

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check pipe bed material, initial backfill material & main backfill material & that the materials have been placed in layers & compacted as per the spec - ATTACH EVIDENCE(Delivery note/Trench filling)	Yes	Photo	 09/06/2023 11:15:53		Yes	Yes

HOLD POINT - Sign off required

#	Check Item	Subcontractor Signature	GMI Signature
1	Have all of the above been completed and signed off before proceeding?	 H.Noon (Adana Construction) 09/06/2023 11:16:06	A.Young (GMI Construction) 15/07/2024 14:48:17

Closure						
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A
1	Works adequately protected	Yes	N/A	 12/06/2023 14:48:51		Yes
2	Work area cleaned	Yes	N/A	 15/07/2024 14:48:51		Yes

Summary Comments	
Contractor Sign Off	



Harry Noon (Adana Construction)
14/06/2023 12:32:31

Date & Time	15/05/2023 15:22:00
GMI Final Sign Off	

Andy Young (GMI Construction)
15/07/2024 14:49:26

Date & Time.	15/07/2024 14:48:00
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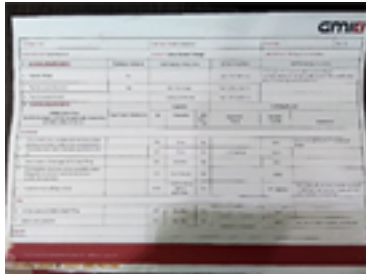
Form Status Audit Trail				
Status	Date	Signed By	Signature	Comments
Not Started	15/05/2023 15:22:36	Harry Noon (Adana Construction)	_____	
In Progress	15/05/2023 15:22:39	Harry Noon (Adana Construction)	_____	
Closed	15/07/2024 14:50:56	Andy Young (GMI Construction)	_____	

Below Ground Drainage QA - L025

Form Reference	F311687.16
Owned By	Harry Noon (Adana Construction)
Date	15/05/2023 15:23:09
Status	Closed
Project Name	L025 - Citylabs 4.0
Location	F1.002>Drainage & Manholes>Substructure>Site QA

Form Location	F1.002
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Images

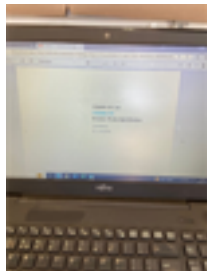


[15/05/2023 15:23:23](#)



[15/05/2023 15:23:24](#)

Test & Inspection Plan			
#	Check Item	Subcontractor Yes / No	Document attached to this form?
1	ITAP agreed and in place	Yes	Yes

Prepare & Plan						
#	Check Item	No. & Revision	Doc / DWG / Spec (Photo)	Comments	Subcontractor Check	GMI Check
1	Confirm current Specification	P01CIV-SPEC-001	 <p>09/06/2023 11:02:02</p>  <p>09/06/2023 11:02:02</p>		Harry Noon	Andy Young
2	Confirm current Drawing	L025-ARU-90-01.00-D-C-001003	 <p>09/06/2023 11:02:22</p>		Harry Noon	Andy Young

Pre Commencement Checks 1

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check Building Control, Adopting Authority and the Environmental Regulator have no adverse comments on the Structural Engineers drawings and specification - ATTACH EVIDENCE (Correspondence)	Yes	N/A	 15/07/2024 14:38:20		Yes	Yes

Pre Commencement Checks 2

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Camera survey of existing drainage carried out - ATTACH EVIDENCE (Survey / Video Records)	Yes	Photo	 14/06/2023 11:04:26  14/06/2023 11:04:26  14/06/2023 11:04:26  14/06/2023 11:04:26	done by gmi prior to start of job	Yes	Yes

Pre Commencement Checks 3

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that a Temporary Works design has been carried out to deeper excavations and that the required shoring equipment is available - ATTACH EVIDENCE (Temporary Works Register)	N/A	N/A	 12/06/2023 14:51:29 12/06/2023 14:51:29 12/06/2023 14:51:29		Yes	Yes

Pre Commencement Checks 4

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that arrangements are in place for dealing with groundwater - ATTACH EVIDENCE (Correspondence / discharge license)	N/A	N/A	 15/07/2024 14:38:49		Yes	Yes

Pre Commencement Checks 5

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that arrangements are in place for dealing with / disposing of non inert excavated material - ATTACH EVIDENCE (Correspondence/WAC Tests)	N/A	N/A	 15/07/2024 14:39:08		Yes	Yes

Pre Commencement Checks 6

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check all other underground services are recorded and checked for integrity and the positions are marked on site - ATTACH EVIDENCE (Marked up drawing)	N/A	N/A	 15/07/2024 14:39:32		Yes	Yes

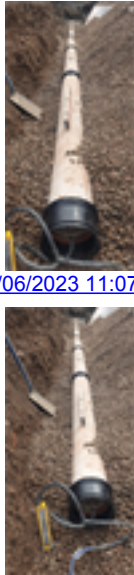
HOLD POINT - Sign off required before proceeding

#	Check Item	Subcontractor Signature	GMI Signature
1	Have all of the above been completed and signed off before proceeding?	 H.Noon (Adana Construction) 09/06/2023 11:10:19	A.Young (GMI Construction) 15/07/2024 14:39:45

Testing Checks 1

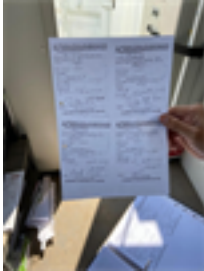
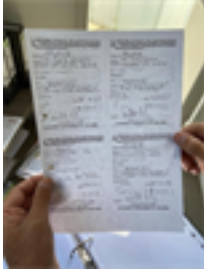
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the air test carried out to the drainage run is accepted by Building Control - ATTACH EVIDENCE (Records)	Yes	Photo	 09/06/2023 11:05:44		Yes	Yes

Testing Checks 2							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Water test to pipe runs and manholes - ATTACH EVIDENCE (Records)	N/A	N/A	 15/07/2024 14:42:05		Yes	Yes

Testing Checks 3							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check pipe gradient/falls regularly. Agree frequency of checks with S/C - ATTACH EVIDENCE (Records)	Yes	Photo	 09/06/2023 11:07:29 09/06/2023 11:07:29		Yes	Yes

Testing Checks 4							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check all pipework and manholes are secured to prevent unwanted debris	Yes	N/A	 15/07/2024 14:40:26		Yes	Yes

Testing Checks 5							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Ensure that none of the bungs used for testing have been left in place. This is a recurring issue and has to be checked for all runs	Yes	N/A	 15/07/2024 14:40:41		Yes	Yes

Testing Checks 6							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check pipe bed material, initial backfill material & main backfill material & that the materials have been placed in layers & compacted as per the spec - ATTACH EVIDENCE(Delivery note/Trench filling)	Yes	Photo	 09/06/2023 11:07:57  09/06/2023 11:07:57		Yes	Yes

HOLD POINT - Sign off required		
#	Check Item	GMI Signature
1	Have all of the above been completed and signed off before proceeding?	<div>  H.Noon (Adana Construction) 14/06/2023 12:09:50 </div>

Closure						
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A
1	Works adequately protected	Yes	Photo	 12/06/2023 14:52:43		Yes
2	Work area cleaned	Yes	N/A	 15/07/2024 14:41:04		Yes

Summary Comments	
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Contractor Sign Off	
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Harry Noon (Adana Construction)
14/06/2023 12:33:06

Date & Time	15/05/2023 15:23:00
GMI Final Sign Off	

Andy Young (GMI Construction)
15/07/2024 14:41:15

Date & Time.	15/07/2024 14:41:00
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Form Status Audit Trail

Status	Date	Signed By	Signature	Comments
Not Started	15/05/2023 15:23:09	Harry Noon (Adana Construction)	_____	
In Progress	15/05/2023 15:23:27	Harry Noon (Adana Construction)	_____	
Closed	15/07/2024 14:42:34	Andy Young (GMI Construction)	_____	

Below Ground Drainage QA - L025

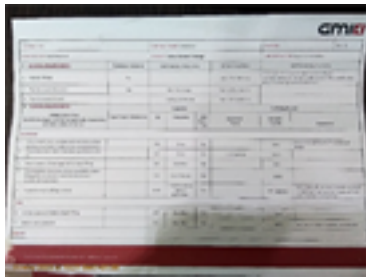
Form Reference	F311687.17
Owned By	Harry Noon (Adana Construction)
Date	15/05/2023 15:23:36
Status	Closed
Project Name	L025 - Citylabs 4.0
Location	F2.000>Drainage & Manholes>Substructure>Site QA

Form Location	F2.000
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Test & Inspection Plan			
#	Check Item	Subcontractor Yes / No	Document attached to this form?
1	ITAP agreed and in place	Yes	Yes

Images

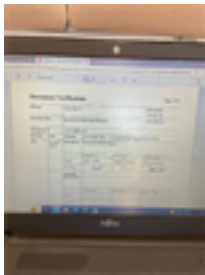
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[15/05/2023 15:23:50](#)



[15/05/2023 15:23:50](#)

Prepare & Plan						
#	Check Item	No. & Revision	Doc / DWG / Spec (Photo)	Comments	Subcontractor Check	GMI Check
1	Confirm current Specification	P01CIV-SPEC-001	 <p>09/06/2023 09:40:21</p>  <p>09/06/2023 09:40:21</p>		Harry Noon	Andy Young
2	Confirm current Drawing	L025-ARU-90-01.00-D-C-001003	 <p>09/06/2023 09:40:38</p>		Harry Noon	Andy Young

Pre Commencement Checks 1

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check Building Control, Adopting Authority and the Environmental Regulator have no adverse comments on the Structural Engineers drawings and specification - ATTACH EVIDENCE (Correspondence)	Yes	N/A	 15/07/2024 14:31:58		Yes	Yes

Pre Commencement Checks 2

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Camera survey of existing drainage carried out - ATTACH EVIDENCE (Survey / Video Records)	Yes	Photo	 14/06/2023 11:02:39  14/06/2023 11:02:39  14/06/2023 11:02:39  14/06/2023 11:02:40	carried out by gmi prior to the start of job	Yes	Yes

Pre Commencement Checks 3

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that a Temporary Works design has been carried out to deeper excavations and that the required shoring equipment is available - ATTACH EVIDENCE (Temporary Works Register)	N/A	N/A	 12/06/2023 14:53:31  12/06/2023 14:53:32  12/06/2023 14:53:32		Yes	Yes

Pre Commencement Checks 4

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that arrangements are in place for dealing with groundwater - ATTACH EVIDENCE (Correspondence / discharge license)	N/A	N/A	 15/07/2024 14:32:27		Yes	Yes

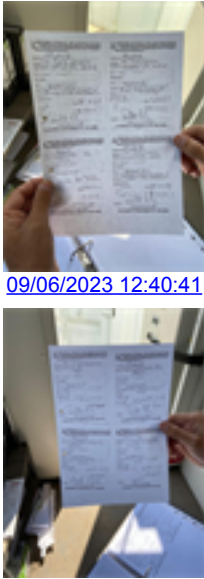
Testing Checks 1							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check that the air test carried out to the drainage run is accepted by Building Control - ATTACH EVIDENCE (Records)	Yes	Photo	 09/06/2023 12:15:46 09/06/2023 12:15:46 09/06/2023 12:15:46		Yes	Yes

Testing Checks 2							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Water test to pipe runs and manholes - ATTACH EVIDENCE (Records)	N/A	N/A	 15/07/2024 14:33:09		Yes	Yes

Testing Checks 3							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check pipe gradient/falls regularly. Agree frequency of checks with S/C - ATTACH EVIDENCE (Records)	Yes	N/A	 15/07/2024 14:33:20		Yes	Yes

Testing Checks 4							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check all pipework and manholes are secured to prevent unwanted debris	Yes	N/A	 15/07/2024 14:33:41		Yes	Yes

Testing Checks 5							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Ensure that none of the bungs used for testing have been left in place. This is a recurring issue and has to be checked for all runs	Yes	N/A	 15/07/2024 14:33:51		Yes	Yes

Testing Checks 6							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check pipe bed material, initial backfill material & main backfill material & that the materials have been placed in layers & compacted as per the spec - ATTACH EVIDENCE(Delivery note/Trench filling)	Yes	N/A	 09/06/2023 12:40:41 09/06/2023 12:40:41	pipe bedding material approved 25/4/23 by John pierre and Thomas Harrison	Yes	Yes

HOLD POINT - Sign off required							
#	Check Item	Subcontractor Signature		GMI Signature			
1	Have all of the above been completed and signed off before proceeding?	 H.Noon (Adana Construction) 14/06/2023 12:06:05		A.Young (GMI Construction) 15/07/2024 14:34:06			

Closure						
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A
1	Works adequately protected	Yes	N/A			Yes
2	Work area cleaned	Yes	Photo			Yes

Summary Comments	
Contractor Sign Off	



Harry Noon (Adana Construction)
14/06/2023 12:33:50

Date & Time	15/05/2023 15:23:00
GMI Final Sign Off	

Andy Young (GMI Construction)
15/07/2024 14:34:18

Date & Time.	15/07/2024 14:34:00
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Form Status Audit Trail				
Status	Date	Signed By	Signature	Comments
Not Started	15/05/2023 15:23:36	Harry Noon (Adana Construction)	-----	

Attenuation Tank QA - L025

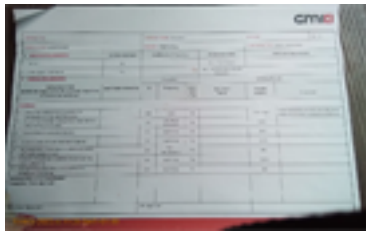
Form Reference	F311687.27
Owned By	Harry Noon (Adana Construction)
Date	16/05/2023 10:36:02
Status	Closed
Project Name	L025 - Citylabs 4.0
Location	Attenuation Tank>Drainage & Manholes>Substructure>Site QA

Form Location	Attenuation Tank
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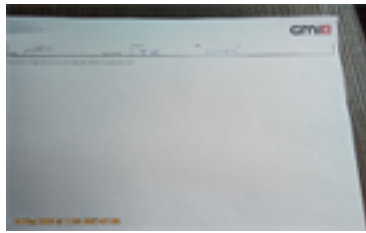
Test & Inspection Plan			
#	Check Item	Subcontractor Yes / No	Document attached to this form?
1	ITAP agreed and in place	Yes	Yes

Images

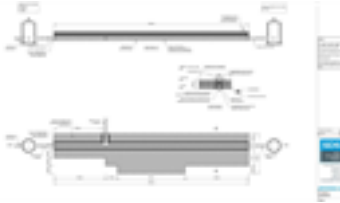
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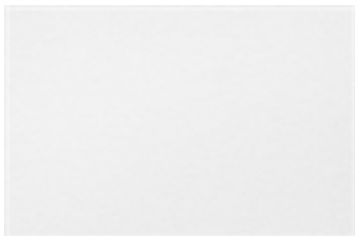


[16/05/2023 10:36:45](#)



[16/05/2023 10:36:59](#)

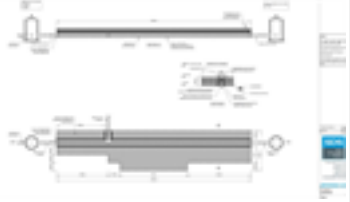
Prepare & Plan						
#	Check Item	No. & Revision	Doc / DWG / Spec (Photo)	Comments	Subcontractor Check	GMI Check
1	Confirm current Specification	E254022	 30/05/2023 13:31:35		Harry Noon	John Pierre
2	Confirm current Drawing	L025-ARU-90-01.00-D-C-001003	 30/05/2023 13:35:06		Harry Noon	John Pierre

Pre Commencement Checks 1							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check Building Control, Adopting Authority and the Environmental Regulator have no adverse comments on the Structural Engineers drawings and specification - ATTACH EVIDENCE (Correspondence)	Yes	N/A	 19/07/2023 08:28:25		Yes	Yes

HOLD POINT - Sign off required before proceeding

#	Check Item	Subcontractor Signature	GMI Signature
1	Have all of the above been completed and signed off before proceeding?	 H.Noon (Adana Construction) 05/06/2023 07:20:51	J.Pierre (GMI Construction) 30/05/2023 13:22:22

Material Requirements 1

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Are the crates and fittings as specified - ATTACH EVIDENCE (Specification)	Yes	Photo	 30/05/2023 13:40:27		Yes	Yes

Material Requirements 2

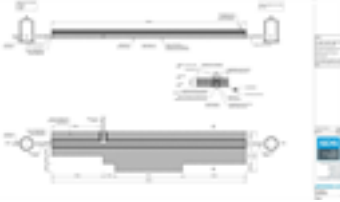
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Is the membrane and fleece as specified	Yes	Photo	 30/05/2023 13:40:58		Yes	Yes

Material Requirements 3

#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Has the designer specified the tank surround i.e. gravel/sand - ATTACH EVIDENCE (Records)	Yes	Photo	 30/05/2023 13:59:11		Yes	Yes

Installation Check 1							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check invert level, position and condition of base	Yes	Survey	 30/05/2023 14:00:28		Yes	Yes

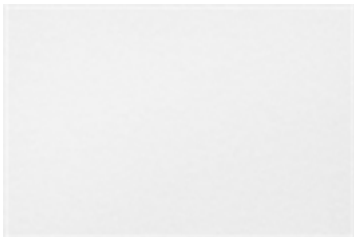
#	Document Name	Type	Created By	Date
1	Top Atten Tank SVY.pdf	Pdf	John Pierre (GMI Construction)	30/05/2023 14:02:56

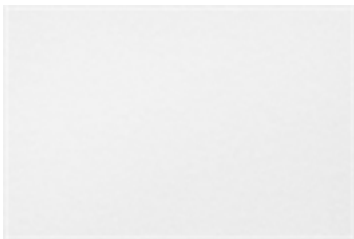
Installation Check 2							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check materials match the ones specified by the CE	Yes	Photo	 30/05/2023 14:03:39		Yes	Yes

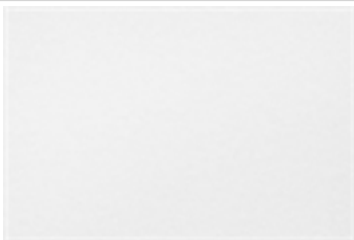
Installation Check 3							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check inverts of drainage before backfilling	Yes	Survey	 30/05/2023 14:04:04		Yes	Yes

#	Document Name	Type	Created By	Date
1	Drawing Asbuilt.dwg	Unknown	John Pierre (GMI Construction)	30/05/2023 14:05:04

Installation Check 4							
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A	All required evidence attached
1	Check backfill materials and backboard requirements	Yes	Photo	 30/05/2023 14:06:00		Yes	Yes

Installation Check 5							
#	Check Item	Subcontractor Yes / No / NA	Type of Evidence (Survey / Certs / Testing)	Evidence attached (photo)	Comments	GMI Yes / No / NA	All required evidence attached
1	Inspection by Building Control	Yes	N/A	 30/05/2023 14:09:03  19/07/2023 08:28:57		Yes	Yes

Testing Check 1							
#	Check Item	Subcontractor Yes / No / NA	Type of Evidence (Survey / Certs / Testing)	Evidence attached (Photo)	Comments	GMI Yes / No / NA	All required evidence attached
1	Air test pipework before backfilling	Yes	N/A	 19/07/2023 08:29:18		Yes	Yes

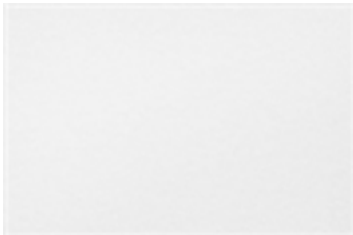
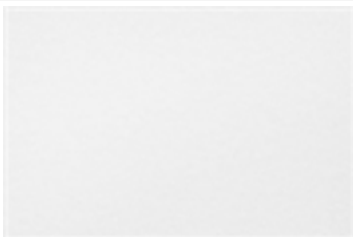
Testing Check 2							
#	Check Item	Subcontractor Yes / No / NA	Type of Evidence (Survey / Certs / Testing)	Evidence attached	Comments	GMI Yes / No / NA	All required evidence attached
1	Check venting requirements	Yes	Photo	 19/07/2023 08:29:35		Yes	Yes

Record							
#	Check Item	Subcontractor Yes / No / NA	Type of Evidence (Survey / Certs / Testing)	Evidence attached (Photo)	Comments	GMI Yes / No / NA	All required evidence attached
1	Survey drainage for As Built drawings	Yes	Survey	 30/05/2023 14:10:04		Yes	Yes

#	Document Name	Type	Created By	Date
1	Drawing Asbuilt.dwg	Unknown	John Pierre (GMI Construction)	30/05/2023 14:10:33

HOLD POINT - Sign off required

#	Check Item	Subcontractor Signature	GMI Signature
1	Have all of the above been completed and signed off before proceeding?	 H.Noon (Adana Construction) 05/06/2023 07:21:28	J.Pierre (GMI Construction) 30/05/2023 14:10:49

Closure						
#	Check Item	Subcontractor Yes / No / N/A	Type of Evidence (Surveys / Certs / Testing)	Evidence Attached (Photo)	Comments	GMI Yes / No / N/A
1	Works adequately protected	Yes	N/A	 19/07/2023 08:29:50		Yes
2	Work area cleaned	Yes	N/A	 19/07/2023 08:29:58		Yes

Summary Comments	
Contractor Sign Off	



Harry Noon (Adana Construction)
09/06/2023 10:53:10

Date & Time	16/05/2023 11:36:00
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John Pierre (GMI Construction)
30/05/2023 14:11:19

Date & Time.	16/05/2023 11:36:00
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Form Status Audit Trail

Status	Date	Signed By	Signature	Comments
<div>Not Started</div>	16/05/2023 10:36:02	Harry Noon (Adana Construction)	<div></div>	
<div>In Progress</div>	16/05/2023 10:42:49	Harry Noon (Adana Construction)	<div></div>	
<div>Inspected/Verified</div>	05/06/2023 12:57:52	John Pierre (GMI Construction)	<div></div>	
<div>Closed</div>	19/07/2023 08:30:15	Cain Williams (GMI Construction)	<div></div>	

Citylabs 4.0 - Video Evidence



Project

Project Name: DK Adana City labs Hathersage Rd Manchester 19 02 24
Project Description: WinCan Import in Miraculix Standard
Project Date: 20/02/2024



Table of Contents

Project Name	Project Number	Project Date
DK Adana City labs Hathersage Rd Manchester 19 02 24		20/02/2024

Project Information	P-1
Section Item 1: 1 > IFWMH1.0 (1X)	1
Section Item 2: 2 > IFWMH1.0 (2X)	2
Section Item 3: 3 > CARRIER (3X)	3
Section Item 4: 4 > CARRIER (4X)	4
Section Item 5: 5 > IFWMH1.1 (5X)	5
Section Item 6: 6 > IFWMH2.0 (6X)	7
Section Item 7: 7 > IFWMH1.2 (7X)	8
Section Item 8: 8 > IFWMH2.0 (8X)	10
Section Item 9: 9 > IFWMH2.0 (9X)	11
Section Item 10: 10 > CARRIER (10X)	12
Section Item 11: 11 > CARRIER (11X)	13
Section Item 12: 12 > IFWMH2.0 (12X)	14
Section Item 13: 13 > CARRIER (13X)	15
Section Item 14: 14 > CARRIER (14X)	16
Section Item 15: 15 > CARRIER (15X)	17
Section Item 16: 16 > IFWMH1.2 (16X)	18
Section Item 17: 17 > IFWMH1.2 (17X)	19
Section Item 18: 18 > CARRIER (18X)	20
Section Item 19: 19 > IFWMH1.2 (19X)	22
Section Item 20: 20 > IFWMH2.0 (20X)	23
Section Item 21: 21 > CARRIER (21X)	24
Section Item 22: 22 > CARRIER (22X)	25
Section Item 23: 23 > CARRIER (23X)	26
Section Item 24: 24 > CARRIER (24X)	28
Section Item 25: 25 > CARRIER (25X)	29
Section Item 26: 26 > CARRIER (26X)	31
Section Item 27: 28 > FWMH2 (28X)	32
Section Item 28: 29 > IFWMH3.0 (29X)	33

Table of Contents

Project Name	Project Number	Project Date
DK Adana City labs Hathersage Rd Manchester 19 02 24		20/02/2024

Section Item 29: 30 > IFWMH3.0 (30X)	34
Section Item 30: 31 > IFWMH3.0 (31X)	35
Section Item 31: 32 > CARRIER (32X)	36
Section Item 32: 33 > IFWMH3.0 (33X)	37
Section Item 33: 34 > IFWMH3.0 (34X)	38
Section Item 34: 35 > MHFW1 (35X)	39
Section Item 35: 36 > FWMH1 (36X)	40
Section Item 36: 37 > CARRIER (37X)	41
Section Item 37: 38 > ATT TANK (38X)	42
Section Item 38: 39 > IFWMH1.1 (39X)	44
Section Item 39: FWMH2 > 27 (FWMH2X)	45
Section Item 40: IFWMH1.0 > IFWMH1.1 (IFWMH1.0X)	47
Section Item 41: IFWMH1.2 > EX FWMH (IFWMH1.2X)	48
Section Item 42: IFWMH2.0 > EX FWMH (IFWMH2.0X)	50
Section Item 43: IFWMH3.0 > MHFW2 (IFWMH3.0X)	51
Section Item 44: IFWMH11 > IFWMH12 (IFWMH11X)	53

Project Information

Project Name	Project Number	Project Date
DK Adana City labs Hathersage Rd Manchester 19 02 24		20/02/2024

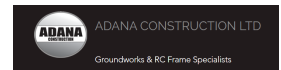
Client

Company: Adana Construction
Department: Adana House
Street: 140 Higher Hillgate
Town or City: Stockport
County: Cheshire
Post Code: SK1 3QT
Phone: 0161 477 7211



Site

Company: ADANA CONSTRUCTION
Contact: DK Adana City labs Hathersage Rd Manchester 19 02 24



Contractor

Company: NRCWWS
Contact: Derek Kearns
Department: Director
Street: unit D. Russell Road
Town or City: Rock Ferry
County: Wirral
Post Code: CH42 1LU
Phone: 0151 643 0800
Email: derek.kearns@nrcwws.co.uk



Section Inspection - 19/02/2024 - 1X



Item No. 1	Insp. No. 1	Date 19/02/24	Time 10:41	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 1X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	1
Road:	Hathersgate Rd	Inspected Length:	2.98 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	2.98 m	Downstream Node:	IFWMH1.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>1</div> <div> </div> </div>							
		0.00	RE	Start node, rodding eye, reference: 1: POP UP	00:00:04		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:10		
		0.45	LR	Line deviates right	00:00:14		
		2.98	MHF	Finish node, manhole, reference: IFWMH1.0	00:00:25		

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 2X



Item No. 2	Insp. No. 2	Date 19/02/24	Time 11:08	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 2X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	2
Road:	Hathersgate Rd	Inspected Length:	2.17 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	2.17 m	Downstream Node:	IFWMH1.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 2: POP UP	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:02		
		0.33	LD	Line deviates down	00:00:06		
		2.17	MHF	Finish node, manhole, reference: IFWMH1.0	00:00:21		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 3X



Item No. 3	Insp. No. 3	Date 19/02/24	Time 11:08	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 3X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	3
Road:	Hathersgate Rd	Inspected Length:	10.36 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	10.36 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:90	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div> <div>Depth: m</div> <div>3</div> <div> </div> </div> <div> <div>00:00:00</div> <div>00:00:01</div> <div>00:00:05</div> <div>00:00:16</div> <div>00:00:27</div> <div>00:00:40</div> </div> </div>							
		-0.02	RE	Start node, rodding eye, reference: 3: POP UP	00:00:00		
		-0.02	WL	Water level, 0% of the vertical dimension	00:00:01		
		0.61	LL	Line deviates left	00:00:05		
		1.82	JN	Junction at 9 o'clock, 100mm dia: POP UP 4	00:00:16		
		6.44	JN	Junction at 10 o'clock, 100mm dia	00:00:27		
		10.36	MHF	Finish node, manhole, reference: CARRIER: IFWMH1.1	00:00:40		
				CARRIER			
				Depth: m			

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 4X



Item No. 4	Insp. No. 4	Date 19/02/24	Time 11:08	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 4X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	4
Road:	Hathersgate Rd	Inspected Length:	4.13 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	4.13 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>4</div> <div> </div> </div>							
		0.00	RE	Start node, rodding eye, reference: 4: POP UP	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:02		
		0.65	LL	Line deviates left	00:00:04		
		4.13	BRF	Finish node, major connection without manhole, reference: CARRIER: JOINS CARRIER TO MH	00:00:18		

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

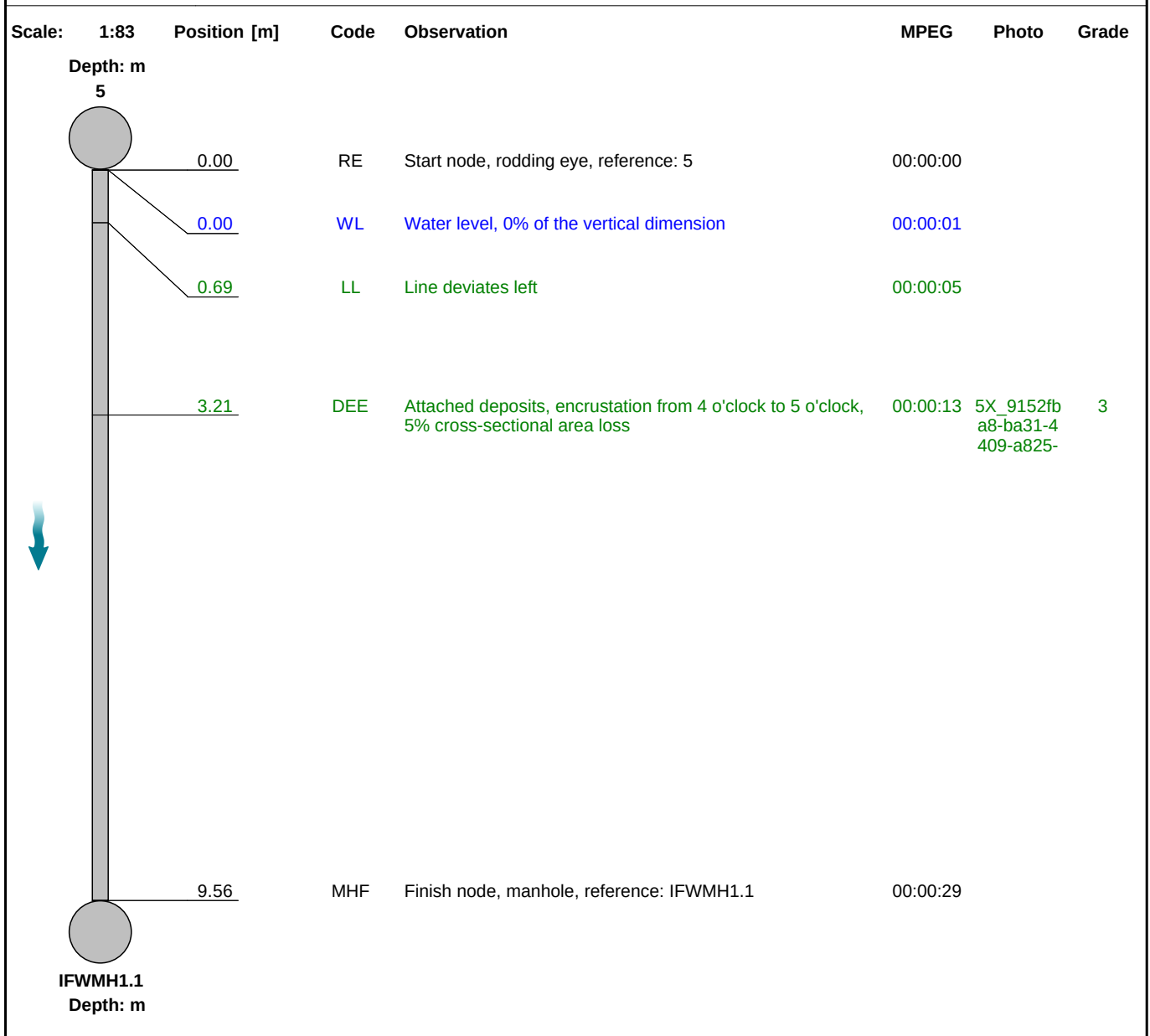
Section Inspection - 19/02/2024 - 5X



Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
5	5	19/02/24	11:08	DK ADANA	No Rain Or Snow	Yes	5X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
K.Graham		Not Specified		Solo Pro	Not Specified	Not Specified	1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	5
Road:	Hathersgate Rd	Inspected Length:	9.56 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	9.56 m	Downstream Node:	IFWMH1.1
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

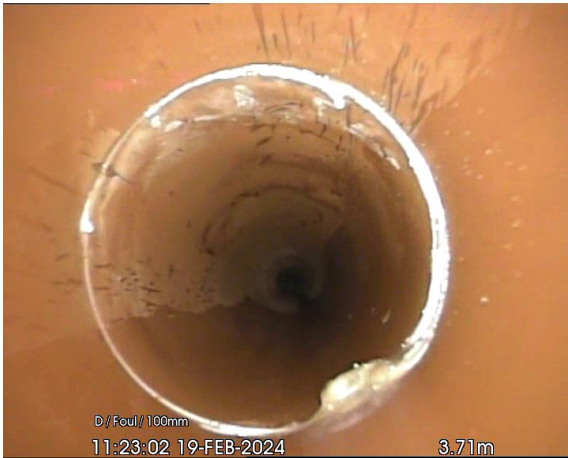
Comments:
Recommendations:



Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	2.0	0.2	2.0	3.0

Section Pictures - 19/02/2024 - 5X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
5	Downstream	5X	DK ADANA	NRC WWS LTD



5X_9152fba8-ba31-4409-a825-1384a7787cf2_20240220_130
128_571.jpg, 00:00:13, 3.21 m

Attached deposits, encrustation from 4 o'clock to 5 o'clock, 5% cross-sectional area loss

Section Inspection - 19/02/2024 - 6X



Item No. 6	Insp. No. 15	Date 19/02/24	Time 12:30	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 6X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	6
Road:	Hathersgate Rd	Inspected Length:	10.64 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	10.64 m	Downstream Node:	IFWMH2.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	1.350 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:93	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>6</div> <div> <div>0.00</div> <div>0.00</div> <div>0.83</div> </div> <div> <div>7.55</div> <div>9.96</div> <div>10.64</div> </div> <div>IFWMH2.0</div> <div>Depth: 1.35 m</div> </div>							
		0.00	RE	Start node, rodding eye, reference: 6	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:02		
		0.83	LL	Line deviates left	00:00:04		
		7.55	LR	Line deviates right	00:00:28		
		9.96	LL	Line deviates left	00:00:35		
		10.64	MHF	Finish node, manhole, reference: IFWMH2.0	00:00:38		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 7X



Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
7	13	19/02/24	12:11	DK ADANA	No Rain Or Snow	Yes	7X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
K.Graham		Not Specified		Solo Pro	Not Specified	Not Specified	1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	7
Road:	Hathersgate Rd	Inspected Length:	12.14 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	12.14 m	Downstream Node:	IFWMH1.2
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:106	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div> <div>Depth: m</div> <div>7</div> <div> </div> </div> <div> <div>0.00</div> <div>RE</div> <div>Start node, rodding eye, reference: 7</div> <div>00:00:00</div> </div> <div> <div>0.00</div> <div>WL</div> <div>Water level, 0% of the vertical dimension</div> <div>00:00:01</div> </div> <div> <div>0.80</div> <div>DER</div> <div>Settled deposits, coarse, 5% cross-sectional area loss</div> <div>00:00:03</div> </div> <div> <div>1.10</div> <div>LL</div> <div>Line deviates left</div> <div>00:00:07</div> </div> <div> <div>6.16</div> <div>JN</div> <div>Junction at 12 o'clock, 100mm dia: POP UP 16</div> <div>00:00:19</div> </div> <div> <div>12.14</div> <div>MHF</div> <div>Finish node, manhole, reference: IFWMH1.2</div> <div>00:00:30</div> </div> <div> <div>IFWMH1.2</div> <div>Depth: m</div> </div> </div>							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	2.0	0.2	2.0	3.0

Section Pictures - 19/02/2024 - 7X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
7	Downstream	7X	DK ADANA	NRC WWS LTD



7X_652b01c9-c048-45aa-b1f7-cfa4fb08588b_20240220_1302
14_689.jpg, 00:00:03, 0.80 m

Settled deposits, coarse, 5% cross-sectional area loss

Section Inspection - 19/02/2024 - 8X



Item No. 8	Insp. No. 16	Date 19/02/24	Time 12:30	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 8X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	8
Road:	Hathersgate Rd	Inspected Length:	8.08 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	8.08 m	Downstream Node:	IFWMH2.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	1.350 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:70	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>8</div> </div>							
		0.00	RE	Start node, rodding eye, reference: 8: POP UP	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		0.97	LL	Line deviates left	00:00:03		
		1.76	WL	Water level, 10% of the vertical dimension	00:00:10		
		2.41	JN	Junction at 12 o'clock, 100mm dia: POP UP 9	00:00:15		
		3.60	JN	Junction at 12 o'clock, 100mm dia: POP UP 10	00:00:21		
		4.72	LR	Line deviates right	00:00:27		
		5.41	LL	Line deviates left	00:00:31		
		5.41	REM	General remark: WATER ON LENS	00:00:31		
		8.08	MHF	Finish node, manhole, reference: IFWMH2.0	00:00:45		
<div> <div>IFWMH2.0</div> <div>Depth: 1.35 m</div> </div>							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 9X



Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
9	17	19/02/24	12:31	DK ADANA	No Rain Or Snow	Yes	9X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
K.Graham		Not Specified		Solo Pro	Not Specified	Not Specified	1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	9
Road:	Hathersgate Rd	Inspected Length:	0.93 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.93 m	Downstream Node:	IFWMH2.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	1.350 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 9	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:00		
		0.61	LL	Line deviates left	00:00:03		
		0.93	BRF	Finish node, major connection without manhole, reference: IFWMH2.0: JOINS CARRIER TO MH	00:00:05		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 10X



Item No. 10	Insp. No. 18	Date 19/02/24	Time 12:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 10X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	10
Road:	Hathersgate Rd	Inspected Length:	1.08 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	1.08 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div> <div>Depth: m</div> <div>10</div> <div> </div> </div> </div>							
		0.00	RE	Start node, rodding eye, reference: 10	00:00:01		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:01		
		0.89	LL	Line deviates left	00:00:07		
		1.08	BRF	Finish node, major connection without manhole, reference: CARRIER	00:00:09		

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 11X



Item No. 11	Insp. No. 19	Date 19/02/24	Time 12:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 11X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	11
Road:	Hathersgate Rd	Inspected Length:	0.93 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.93 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 11	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:01		
		0.71	LL	Line deviates left	00:00:04		
		0.93	BRF	Finish node, major connection without manhole, reference: CARRIER	00:00:06		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 12X



Item No. 12	Insp. No. 20	Date 19/02/24	Time 12:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 12X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	12
Road:	Hathersgate Rd	Inspected Length:	8.10 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	8.10 m	Downstream Node:	IFWMH2.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	1.350 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:71	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div> <div>Depth: m</div> <div>12</div> </div> </div>							
		0.00	RE	Start node, rodding eye, reference: 12	00:00:01		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:01		
		0.83	LL	Line deviates left	00:00:04		
		2.21	JN	Junction at 12 o'clock, 100mm dia: POP UP13	00:00:10		
		3.51	JN	Junction at 12 o'clock, 100mm dia: POP UP14	00:00:16		
		4.94	JN	Junction at 12 o'clock, 100mm dia: POP UP15	00:00:21		
		8.10	MHF	Finish node, manhole, reference: IFWMH2.0	00:00:31		
				IFWMH2.0			
				Depth: 1.35 m			

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 13X



Item No. 13	Insp. No. 21	Date 19/02/24	Time 12:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 13X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	13
Road:	Hathersgate Rd	Inspected Length:	1.00 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	1.00 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 13: POP UP	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:01		
		0.69	LR	Line deviates right	00:00:05		
		1.00	BRF	Finish node, major connection without manhole, reference: CARRIER: JOINS CARRIER TO MAIN	00:00:08		

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 14X



Item No. 14	Insp. No. 22	Date 19/02/24	Time 12:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 14X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	14
Road:	Hathersgate Rd	Inspected Length:	0.94 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.94 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 14	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:00		
		0.63	LL	Line deviates left	00:00:05		
		0.94	BRF	Finish node, major connection without manhole, reference: CARRIER	00:00:07		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 15X



Item No. 15	Insp. No. 23	Date 19/02/24	Time 12:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 15X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	15
Road:	Hathersgate Rd	Inspected Length:	0.87 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.87 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 15	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:01		
		0.55	LL	Line deviates left	00:00:03		
		0.87	BRF	Finish node, major connection without manhole, reference: CARRIER	00:00:05		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

WEB PROJECT
CLICK TO OPEN THIS SECTION

WEB PROJECT
CLICK TO OPEN THIS SECTION

19

Section Inspection - 19/02/2024 - 18X



Item No. 18	Insp. No. 11	Date 19/02/24	Time 12:05	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 18X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	18
Road:	Hathersgate Rd	Inspected Length:	3.30 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	3.30 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

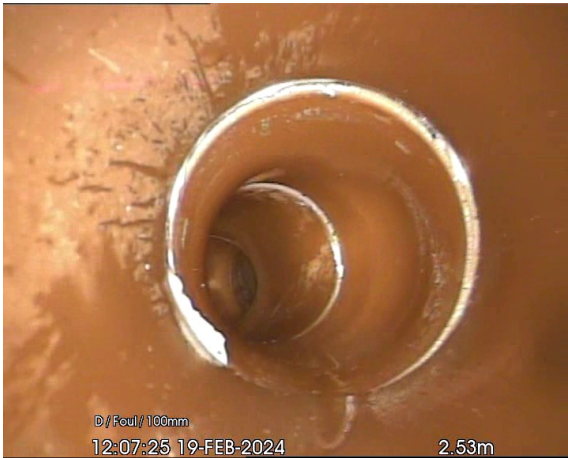
Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 18: POP UP	00:00:01		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:02		
		0.61	LL	Line deviates left	00:00:05		
		2.53	DEE	Attached deposits, encrustation at 7 o'clock, 5% cross-sectional area loss	00:00:12	18X_4407 e400-db61 -41bf-a106	3
		2.88	LL	Line deviates left	00:00:14		
		3.30	BRF	Finish node, major connection without manhole, reference: CARRIER: JONS CARRIER TO MH	00:00:16		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	2.0	0.6	2.0	3.0

Section Pictures - 19/02/2024 - 18X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
18	Downstream	18X	DK ADANA	NRC WWS LTD



18X_4407e400-db61-41bf-a106-9af9e3682a95_20240220_13
0452_072.jpg, 00:00:12, 2.53 m
Attached deposits, encrustation at 7 o'clock, 5%
cross-sectional area loss

Section Inspection - 19/02/2024 - 19X



Item No. 19	Insp. No. 12	Date 19/02/24	Time 12:05	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 19X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	19
Road:	Hathersgate Rd	Inspected Length:	12.00 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	12.00 m	Downstream Node:	IFWMH1.2
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:104	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>19</div> <div> </div> </div>						
	0.00	RE	Start node, rodding eye, reference: 19: POP UP	00:00:00		
	0.00	WL	Water level, 5% of the vertical dimension	00:00:01		
	0.75	LL	Line deviates left	00:00:08		
	3.12	JN	Junction at 3 o'clock, 100mm dia: POP UP 18	00:00:20		
	12.00	MHF	Finish node, manhole, reference: IFWMH1.2	00:00:42		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 20X



Item No. 20	Insp. No. 25	Date 19/02/24	Time 13:04	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 20X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	20
Road:	Hathersgate Rd	Inspected Length:	11.26 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	11.26 m	Downstream Node:	IFWMH2.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	1.350 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:98 Position [m] Code Observation MPEG Photo Grade

Depth: m
20



0.00

RE

Start node, rodding eye, reference: 20

00:00:00

0.00

WL

Water level, 0% of the vertical dimension

00:00:01

8.48

JN

Junction at 12 o'clock, 100mm dia

00:00:23

11.26

MHF

Finish node, manhole, reference: IFWMH2.0

00:00:30

IFWMH2.0
Depth: 1.35 m

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 21X



Item No. 21	Insp. No. 24	Date 19/02/24	Time 12:59	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 21X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	21
Road:	Hathersgate Rd	Inspected Length:	1.35 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	1.35 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	GY	Start node, gully, reference: 21	00:00:01		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:02		
		0.28	LD	Line deviates down	00:00:04		
		0.58	LL	Line deviates left	00:00:08		
		1.35	BRF	Finish node, major connection without manhole, reference: CARRIER	00:00:11		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

WEB PROJECT
CLICK TO OPEN THIS SECTION

Section Inspection - 19/02/2024 - 23X



Item No. 23	Insp. No. 29	Date 19/02/24	Time 15:15	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned No	PLR 23X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	23
Road:	Hathersgate Rd	Inspected Length:	10.38 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	10.38 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:90	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div> <div>Depth: m</div> <div>23</div> <div> </div> </div> <div> <div>0.00</div> <div>RE</div> <div>Start node, rodding eye, reference: 23</div> <div>00:00:00</div> </div> <div> <div>0.00</div> <div>WL</div> <div>Water level, 0% of the vertical dimension</div> <div>00:00:00</div> </div> <div> <div>0.53</div> <div>DEC</div> <div>Settled deposits, hard or compacted, 5% cross-sectional area loss: STONES UNABLE TO JET</div> <div>00:00:16</div> <div>23X_c919 3ec7-2856 -419d-b54</div> <div>3</div> </div> <div> <div>0.95</div> <div>JN</div> <div>Junction at 3 o'clock, 100mm dia: 24 POP UP</div> <div>00:00:19</div> </div> <div> <div>2.07</div> <div>JN</div> <div>Junction at 3 o'clock, 100mm dia: 25 POP UP</div> <div>00:00:27</div> </div> <div> <div>6.64</div> <div>DEC</div> <div>Settled deposits, hard or compacted, 5% cross-sectional area loss: STONES</div> <div>00:00:40</div> <div>23X_0217 8932-7984 -4a5b-b4e</div> <div>3</div> </div> <div> <div>9.92</div> <div>LR</div> <div>Line deviates right</div> <div>00:00:50</div> </div> <div> <div>10.38</div> <div>BRF</div> <div>Finish node, major connection without manhole, reference: CARRIER</div> <div>00:00:52</div> </div> <div> <div>CARRIER</div> <div>Depth: m</div> </div> </div>							

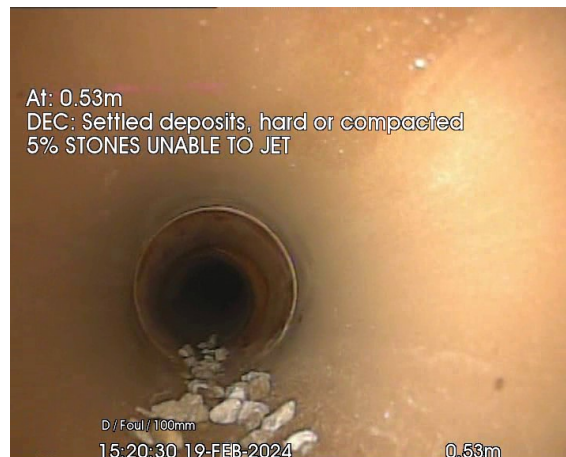
Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	2	2.0	0.4	4.0	3.0

Section Pictures - 19/02/2024 - 23X

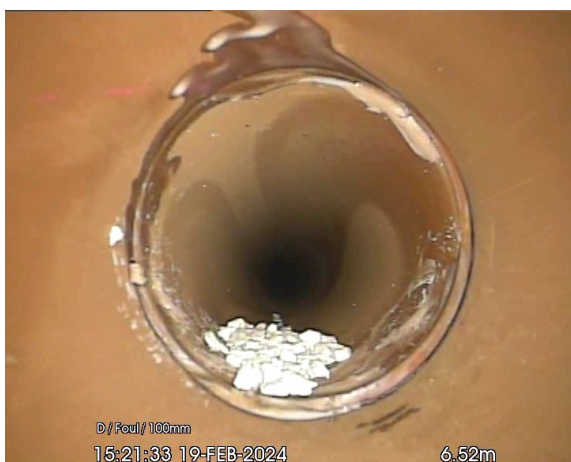
Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
23	Downstream	23X	DK ADANA	NRC WWS LTD



23X_c9193ec7-2856-419d-b543-537437b5a12a_20240220_130726_204.jpg, 00:00:16, 0.53 m
Settled deposits, hard or compacted, 5% cross-sectional area loss, STONES UNABLE TO JET



23X_a6fa35dc-f304-4b1b-a927-afd43327ad87_20240220_130737_782.jpg, 00:00:16, 0.53 m
Settled deposits, hard or compacted, 5% cross-sectional area loss, STONES UNABLE TO JET



23X_02178932-7984-4a5b-b4ee-d4d9c6864987_20240220_130752_169.jpg, 00:00:40, 6.64 m
Settled deposits, hard or compacted, 5% cross-sectional area loss, STONES

Section Inspection - 19/02/2024 - 24X



Item No. 24	Insp. No. 30	Date 19/02/24	Time 15:22	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned No	PLR 24X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	24
Road:	Hathersgate Rd	Inspected Length:	1.13 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	1.13 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 24	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:00		
		0.34	LD	Line deviates down	00:00:01		
		1.13	BRF	Finish node, major connection without manhole, reference: CARRIER	00:00:13		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 25X



Item No. 25	Insp. No. 31	Date 19/02/24	Time 15:22	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 25X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	25
Road:	Hathersgate Rd	Inspected Length:	0.71 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.71 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 25	00:00:01		
		0.01	WL	Water level, 0% of the vertical dimension	00:00:01		
		0.30	DER	Settled deposits, coarse, 5% cross-sectional area loss	00:00:02	25X_7717 47d0-0e43 -4179-86a	3
		0.71	BRF	Finish node, major connection without manhole, reference: CARRIER	00:00:08		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	2.0	2.8	2.0	4.0

Section Pictures - 19/02/2024 - 25X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
25	Downstream	25X	DK ADANA	NRC WWS LTD



25X_771747d0-0e43-4179-86a4-d82d3fb5ba30_20240220_1
30837_022.jpg, 00:00:02, 0.30 m

Settled deposits, coarse, 5% cross-sectional area loss

Section Inspection - 19/02/2024 - 26X



Item No. 26	Insp. No. 32	Date 19/02/24	Time 15:27	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 26X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	26
Road:	Hathersgate Rd	Inspected Length:	3.95 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	3.95 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div> <div>Depth: m</div> <div>26</div> </div> <div> <div>0.00</div> <div>RE</div> <div>Start node, rodding eye, reference: 26</div> <div>00:00:00</div> </div> <div> <div>0.00</div> <div>WL</div> <div>Water level, 0% of the vertical dimension</div> <div>00:00:01</div> </div> <div> <div>1.72</div> <div>JN</div> <div>Junction at 9 o'clock, 100mm dia</div> <div>00:00:09</div> </div> <div> <div>3.58</div> <div>LL</div> <div>Line deviates left</div> <div>00:00:15</div> </div> <div> <div>3.95</div> <div>BRF</div> <div>Finish node, major connection without manhole, reference: CARRIER</div> <div>00:00:18</div> </div> <div> <div>CARRIER</div> <div>Depth: m</div> </div> </div>							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 28X



Item No. 27	Insp. No. 41	Date 19/02/24	Time 16:19	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 28X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Upstream	Upstream Node:	28
Road:	Hathersgate Rd	Inspected Length:	18.39 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	18.39 m	Downstream Node:	FWMH2
Surface Type:		Joint Length:		Downstream Pipe Depth:	1.250 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:160	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 1.25 m FWMH2						
0.02	MH		Start node, manhole, reference: FWMH2	00:00:00		
0.02	WL		Water level, 5% of the vertical dimension	00:00:02		
0.57	SC		Pipe size changes, new size(s), 100mm high	00:00:07		
0.83	LR		Line deviates right	00:00:10		
18.01	LU		Line deviates up	00:00:49		
18.39	OCF		Finish node, other special chamber, reference: 28: AT REST BEND	00:00:53		
28 Depth: m						

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 29X



Item No. 28	Insp. No. 33	Date 19/02/24	Time 15:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 29X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	29
Road:	Hathersgate Rd	Inspected Length:	5.16 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	5.16 m	Downstream Node:	IFWMH3.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>29</div> <div> <div>0.00</div> <div>0.00</div> <div>0.32</div> </div> <div> <div>4.51</div> <div>5.16</div> </div> <div>IFWMH3.0</div> <div>Depth: m</div> </div>							
		0.00	RE	Start node, rodding eye, reference: 29: POP UP	00:00:01		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:07		
		0.32	LD	Line deviates down	00:00:09		
		4.51	LL	Line deviates left	00:00:23		
		5.16	MHF	Finish node, manhole, reference: IFWMH3.0	00:00:25		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 30X



Item No. 29	Insp. No. 34	Date 19/02/24	Time 15:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 30X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	30
Road:	Hathersgate Rd	Inspected Length:	3.38 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	3.38 m	Downstream Node:	IFWMH3.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div> <div>Depth: m</div> <div>30</div> </div> <div> <div>0.00</div> <div>RE</div> <div>Start node, rodding eye, reference: 30</div> <div>00:00:01</div> </div> <div> <div>0.00</div> <div>WL</div> <div>Water level, 5% of the vertical dimension</div> <div>00:00:01</div> </div> <div> <div>2.81</div> <div>LL</div> <div>Line deviates left</div> <div>00:00:12</div> </div> <div> <div>3.38</div> <div>MHF</div> <div>Finish node, manhole, reference: IFWMH3.0</div> <div>00:00:15</div> </div> <div> <div>IFWMH3.0</div> <div>Depth: m</div> </div> </div>							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 31X



Item No. 30	Insp. No. 35	Date 19/02/24	Time 15:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 31X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	31
Road:	Hathersgate Rd	Inspected Length:	3.58 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	3.58 m	Downstream Node:	IFWMH3.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>31</div> <div> <div>0.00</div> <div>0.00</div> <div>0.71</div> <div>2.80</div> <div>3.58</div> </div> <div> <div>RE</div> <div>WL</div> <div>LL</div> <div>LL</div> <div>MHF</div> </div> <div> <div>Start node, rodding eye, reference: 31</div> <div>Water level, 5% of the vertical dimension</div> <div>Line deviates left</div> <div>Line deviates left</div> <div>Finish node, manhole, reference: IFWMH3.0</div> </div> <div> <div>00:00:00</div> <div>00:00:00</div> <div>00:00:03</div> <div>00:00:09</div> <div>00:00:12</div> </div> </div>							
<div> <div>IFWMH3.0</div> <div>Depth: m</div> </div>							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 32X



Item No. 31	Insp. No. 38	Date 19/02/24	Time 15:43	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 32X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	32
Road:	Hathersgate Rd	Inspected Length:	0.85 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.85 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div> <div>Depth: m</div> <div>32</div> <div> </div> </div> <div> <div>CARRIER</div> <div>Depth: m</div> </div> </div>							
		0.00	RE	Start node, rodding eye, reference: 32: POP UP	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:01		
		0.85	BRF	Finish node, major connection without manhole, reference: CARRIER	00:00:07		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 33X



Item No. 32	Insp. No. 37	Date 19/02/24	Time 15:43	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 33X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	33
Road:	Hathersgate Rd	Inspected Length:	0.69 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	0.69 m	Downstream Node:	IFWMH3.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
		0.00	RE	Start node, rodding eye, reference: 33	00:00:00		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:01		
		0.51	LL	Line deviates left	00:00:06		
		0.69	BRF	Finish node, major connection without manhole, reference: IFWMH3.0	00:00:08		

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 34X



Item No. 33	Insp. No. 36	Date 19/02/24	Time 15:43	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 34X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	34
Road:	Hathersgate Rd	Inspected Length:	8.94 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	8.94 m	Downstream Node:	IFWMH3.0
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		
Comments:					
Recommendations:					

Scale:	1:78	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>34</div> <div> <div>0.00</div> <div>0.00</div> <div>1.33</div> <div>6.92</div> <div>7.26</div> <div>7.85</div> <div>8.94</div> </div> <div>IFWMH3.0</div> <div>Depth: m</div> </div>							
		0.00	RE	Start node, rodding eye, reference: 34	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		1.33	LL	Line deviates left	00:00:07		
		6.92	WL	Water level, 10% of the vertical dimension	00:00:27		
		7.26	JN	Junction at 11 o'clock, 100mm dia: 33 POP UP	00:00:30		
		7.85	JN	Junction at 12 o'clock, 100mm dia: 32 POP UP	00:00:36		
		8.94	MHF	Finish node, manhole, reference: IFWMH3.0	00:00:42		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

WEB PROJECT
CLICK TO OPEN THIS SECTION

WEB PROJECT
CLICK TO OPEN THIS SECTION

40

Section Inspection - 19/02/2024 - 37X



Item No. 36	Insp. No. 28	Date 19/02/24	Time 13:31	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 37X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	37
Road:	Hathersgate Rd	Inspected Length:	17.70 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	17.70 m	Downstream Node:	CARRIER
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	300 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:154	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>37</div> <div>0.00</div> <div>0.00</div> <div>14.96</div> <div>17.70</div> <div>CARRIER</div> <div>Depth: m</div> </div>						
	0.00	RE	Start node, rodding eye, reference: 37	00:00:01		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:02		
	14.96	LR	Line deviates right	00:00:52		
	17.70	BRF	Finish node, major connection without manhole, reference: CARRIER	00:01:01		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - 38X



Item No. 37	Insp. No. 39	Date 19/02/24	Time 15:52	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 38X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	38
Road:	Hathersgate Rd	Inspected Length:	10.76 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	10.76 m	Downstream Node:	ATT TANK
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	300 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:94	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>38</div> <div>0.00</div> <div>0.00</div> <div>2.04</div> <div>2.61</div> <div>5.91</div> <div>6.20</div> <div>8.29</div> <div>10.76</div> <div>ATT TANK</div> <div>Depth: m</div> </div>							
		0.00	RE	Start node, rodding eye, reference: 38	00:00:01		
		0.00	WL	Water level, 0% of the vertical dimension	00:00:01		
		2.04	DER	Settled deposits, coarse, 5% cross-sectional area loss	00:00:07	38X_a4c8f b9b-916e- 4ed0-ba2d	3
		2.61	JN	Junction at 3 o'clock, 300mm dia: 37 POP UP	00:00:14		
		5.91	JDM	Joint displaced, medium	00:00:26	38X_a709 27c2-bff9- 48aa-8fd6-	1 / 3
		6.20	MCPE	Pipe material changes to polyethylene at this point	00:00:28		
		8.29	DER	Settled deposits, coarse, 5% cross-sectional area loss	00:00:36	38X_7fd96 89b-7494- 4b8b-9ffd-	3
		10.76	BRF	Finish node, major connection without manhole, reference: ATT TANK: JOINS TANK	00:00:51		

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	1.0	0.1	1.0	1.0	3	2.0	0.6	6.0	3.0

Section Pictures - 19/02/2024 - 38X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
37	Downstream	38X	DK ADANA	NRC WWS LTD



38X_a4c8fb9b-916e-4ed0-ba2d-8d6210d3afb6_20240220_1312_229.jpg, 00:00:07, 2.04 m
Settled deposits, coarse, 5% cross-sectional area loss



38X_a70927c2-bff9-48aa-8fd6-2b3f1407405a_20240220_131215_332.jpg, 00:00:26, 5.91 m
Joint displaced, medium



38X_7fd9689b-7494-4b8b-9ffd-75b43d27888f_20240220_131350_953.jpg, 00:00:36, 8.29 m
Settled deposits, coarse, 5% cross-sectional area loss

Section Inspection - 19/02/2024 - 39X



Item No. 38	Insp. No. 9	Date 19/02/24	Time 11:55	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR 39X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	39
Road:	Hathersgate Rd	Inspected Length:	4.72 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	4.72 m	Downstream Node:	IFWMH1.1
Surface Type:		Joint Length:		Downstream Pipe Depth:	1.200 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:50	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: m</div> <div>39</div> <div> <div>0.00</div> <div>0.00</div> <div>0.45</div> <div>0.79</div> <div>4.72</div> </div> <div> <div>RE</div> <div>WL</div> <div>LL</div> <div>BRF</div> <div>MHF</div> </div> <div> <div>Start node, rodding eye, reference: 39: POP UP</div> <div>Water level, 0% of the vertical dimension</div> <div>Line deviates left</div> <div>Finish node, major connection without manhole, reference: IFWMH1.1: JOINS CARRIER TO MH</div> <div>Finish node, manhole, reference: IFWMH1.1</div> </div> <div> <div>00:00:00</div> <div>00:00:01</div> <div>00:00:04</div> <div>00:00:06</div> <div>00:00:15</div> </div> </div>							
<div> <div>IFWMH1.1</div> <div>Depth: 1.20 m</div> </div>							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - FWMH2X



Item No. 39	Insp. No. 40	Date 19/02/24	Time 16:19	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR FWMH2X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	FWMH2
Road:	Hathersgate Rd	Inspected Length:	19.55 m	Upstream Pipe Depth:	1.200 m
Location:	Property or buildings	Total Length:	19.55 m	Downstream Node:	27
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:170	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 1.20 m FWMH2						
0.00	MH	Start node, manhole, reference: FWMH2	00:00:00			
0.00	WL	Water level, 5% of the vertical dimension	00:00:01			
0.10	SC	Pipe size changes, new size(s), 100mm high, 100mm wide	00:00:08			
14.55	JDM	Joint displaced, medium	00:00:44	FWMH2X_8c1af0ea-f610-4d69-	1 / 3	
17.58	JN	Junction at 2 o'clock, 100mm dia	00:01:22			
19.55	LU	Line deviates up: IN REST	00:01:38			
19.55	OCF	Finish node, other special chamber, reference: 27: IN REST BEND	00:01:39			

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	1.0	0.1	1.0	1.0	1	2.0	0.1	2.0	3.0

Section Pictures - 19/02/2024 - FWMH2X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
39	Downstream	FWMH2X	DK ADANA	NRC WWS LTD



FWMH2X_8c1af0ea-f610-4d69-abc1-e5237699f7e9_20240220_131509_849.jpg, 00:00:44, 14.55 m
Joint displaced, medium

Section Inspection - 19/02/2024 - IFWMH1.0X



Item No. 40	Insp. No. 7	Date 19/02/24	Time 11:33	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR IFWMH1.0X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	IFWMH1.0
Road:	Hathersgate Rd	Inspected Length:	10.61 m	Upstream Pipe Depth:	0.900 m
Location:	Property or buildings	Total Length:	10.61 m	Downstream Node:	IFWMH1.1
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:
Recommendations:

Scale:	1:92	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 0.90 m IFWMH1.0							
	0.00	MH	Start node, manhole, reference: IFWMH1.0		00:00:00		
	0.00	WL	Water level, 5% of the vertical dimension		00:00:01		
	1.59	LR	Line deviates right		00:00:11		
	9.87	LL	Line deviates left		00:00:34		
	10.61	MHF	Finish node, manhole, reference: IFWMH1.1		00:00:44		
IFWMH1.1 Depth: m							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - IFWMH1.2X



Item No. 41	Insp. No. 14	Date 19/02/24	Time 12:19	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR IFWMH1.2X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	IFWMH1.2
Road:	Hathersgate Rd	Inspected Length:	23.06 m	Upstream Pipe Depth:	1.250 m
Location:	Property or buildings	Total Length:	23.06 m	Downstream Node:	EX FWMH
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:200	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 1.25 m IFWMH1.2							
		0.00	MH	Start node, manhole, reference: IFWMH1.2	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:01		
		0.41	LL	Line deviates left	00:00:04		
		3.22	BRF	Finish node, major connection without manhole, reference: carrier: joins carrier	00:00:23		
		20.13	WL	Water level, 15% of the vertical dimension	00:01:13		
		22.36	JDM	Joint displaced, medium	00:01:24	IFWMH1.2 X_146a26f 1-f6ec-4d7	1 / 3
		23.06	MHF	Finish node, manhole, reference: EX FWMH	00:01:29		
EX FWMH Depth: m							

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
1	1.0	0.0	1.0	1.0	1	2.0	0.1	2.0	3.0

Section Pictures - 19/02/2024 - IFWMH1.2X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
41	Downstream	IFWMH1.2X	DK ADANA	NRC WWS LTD



IFWMH1.2X_146a26f1-f6ec-4d74-aa87-7f4b7a251f0d_20240
220_131732_303.jpg, 00:01:24, 22.36 m
Joint displaced, medium

Section Inspection - 19/02/2024 - IFWMH2.0X



Item No. 42	Insp. No. 27	Date 19/02/24	Time 13:26	Client's Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR IFWMH2.0X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Downstream	Upstream Node:	IFWMH2.0
Road:	Hathersgate Rd	Inspected Length:	7.37 m	Upstream Pipe Depth:	1.350 m
Location:	Property or buildings	Total Length:	7.37 m	Downstream Node:	EX FWMH
Surface Type:		Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:		Pipe Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

Recommendations:

Scale:	1:64	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: 1.35 m IFWMH2.0							
		0.00	MH	Start node, manhole, reference: IFWMH2.0	00:00:00		
		0.00	WL	Water level, 5% of the vertical dimension	00:00:00		
		2.57	JN	Junction at 12 o'clock, 100mm dia: 22 GULLY	00:00:16		
		6.66	LL	Line deviates left	00:00:28		
		7.37	MHF	Finish node, manhole, reference: EX FWMH: BURIED	00:00:31		
EX FWMH Depth: m							

Construction Features

Miscellaneous Features

Structural Defects

Service & Operational Observations

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Inspection - 19/02/2024 - IFWMH3.0X



Item No. 43	Insp. No. 42	Date 19/02/24	Time 16:19	Client`s Job Ref DK ADANA	Weather No Rain Or Snow	Pre Cleaned Yes	PLR IFWMH3.0X
Operator K.Graham		Vehicle Not Specified		Camera Solo Pro	Preset Length Not Specified	Legal Status Not Specified	Alternative ID 1

Town or Village:	Manchester	Inspection Direction:	Upstream	Upstream Node:	IFWMH3.0
Road:	Hathersgate Rd	Inspected Length:	20.19 m	Upstream Pipe Depth:	
Location:	Property or buildings	Total Length:	20.19 m	Downstream Node:	MHFW2
Surface Type:		Joint Length:		Downstream Pipe Depth:	1.250 m
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	150 mm		
Flow Control:		Pipe Material:	Vitrified clay		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Routine inspection	Lining Material:	No Lining		

Comments:

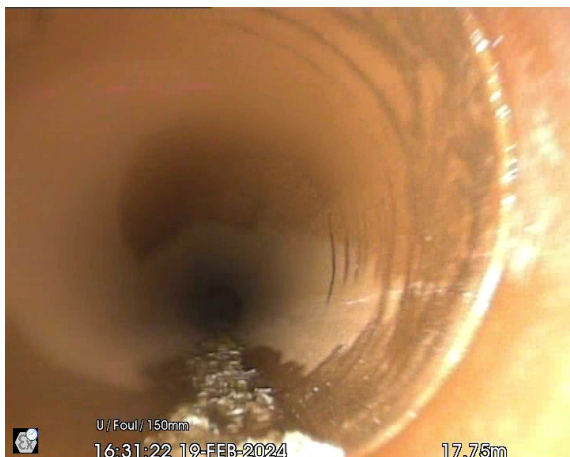
Recommendations:

Scale:	1:175	Position [m]	Code	Observation	MPEG	Photo	Grade
<div> <div>Depth: 1.25 m</div> <div>MHFW2</div> </div>							
			MH	Start node, manhole, reference: MHFW2	00:00:00		
			WL	Water level, 5% of the vertical dimension	00:00:00		
			S01	DER Settled deposits, coarse, 5% cross-sectional area loss, start	00:00:40	IFWMH3.0 X_ee7692 70-ee18-4	
			F01	DER Settled deposits, coarse, 5% cross-sectional area loss, finish	00:00:45		3
			MHF	Finish node, manhole, reference: IFWMH3.0	00:00:48		
<div> <div>IFWMH3.0</div> <div>Depth: m</div> </div>							

Construction Features					Miscellaneous Features				
Structural Defects					Service & Operational Observations				
STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	1	2.0	0.3	6.0	3.0

Section Pictures - 19/02/2024 - IFWMH3.0X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
43	Upstream	IFWMH3.0X	DK ADANA	NRC WWS LTD



IFWMH3.0X_ee769270-ee18-4794-84a9-1b85726d17e2_202
40220_131839_359.jpg, 00:00:40, 17.70 m
Settled deposits, coarse, 5% cross-sectional area loss, start

WEB PROJECT
CLICK TO OPEN THIS SECTION

Citylabs 4.0 - Product Information

CERTIFICATE OF CONFORMITY

Product Description :- **F. P. McCann DN1350mm-DN3000mm Diameter Concrete Manholes.**

This is to certify that the products detailed hereon have been inspected and tested in accordance with the conditions and requirements of :

European Standards

BS EN1917:2002 Concrete Manholes and Inspection Chambers, Cover Slabs and Adjusting units/Seating Rings.

UK Complementary Standards

BS5911-3:2010 + A1:2014 Specification for Manholes, Soakaways, Cover Slabs and Adjusting units/Seating rings.

The Manholes/chamber rings are strength tested in accordance with Annex A of BS EN 1917, using the minimum crushing loads outlined in table 7 of BS5911-3.

F.P.McCann Precast manufacturing facilities are licensed with the following British Standards Institute Kitemark licences.

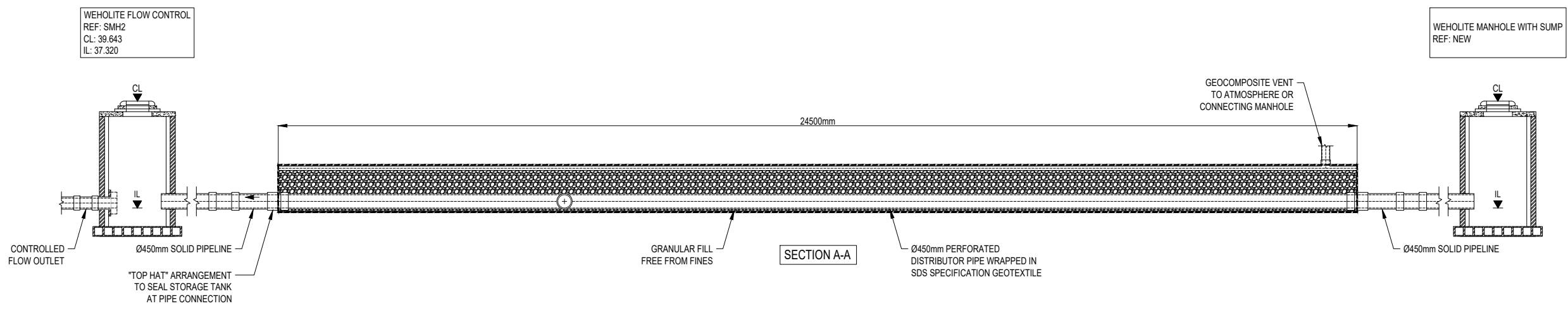
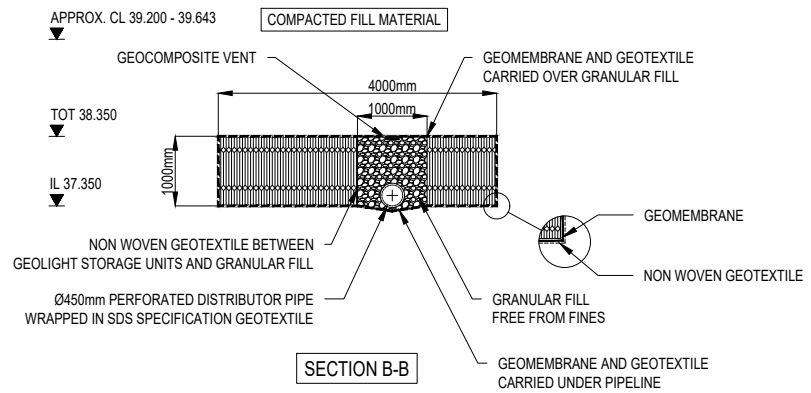
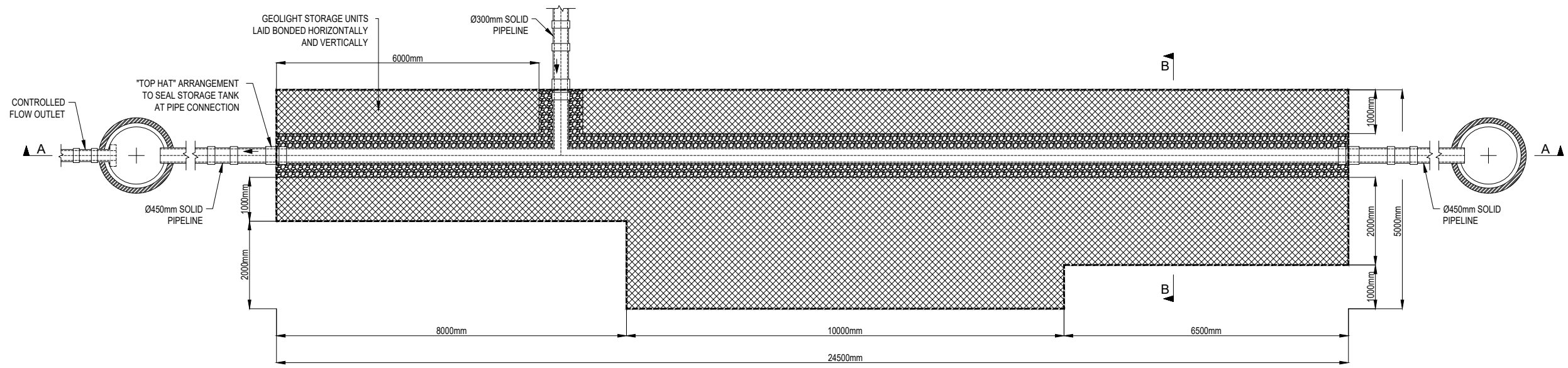
Ellistown, Leicestershire.	No. KM12033
Alnwick, Northumberland.	No. KM06913
Knockloughrim, Northern Ireland.	No. KM06893
Telford, Shropshire.	No. KM06892/KM07923

In order to achieve the DC4 design chemical class the raw materials and manufacturing processes meet the design criteria prescribed in BRE Special Digest 1:2005 Concrete in aggressive ground.

All products are manufactured under a Quality Assurance System assessed against **BS EN ISO 9001:2008** Quality Systems, by British Standards Institute; certificate No FM97367.

Gareth Hughes
Technical Manager
On behalf of F P McCann Ltd.

CONSTRUCTION
AS BUILT



Notes:

This Drawing is to be read in conjunction with all relevant Architect's Engineer's and specialists' drawings and specifications.

Do not scale from this drawing in either paper or digital form. Use written dimensions only.

SDS to leave solid stub only, exiting tank for connection by others.

All external Manholes, Access Points, Junctions & Pipe are shown for guidance only and not part of the SDS program unless otherwise agreed.

B	DRAWING FRAME UPDATE	02.07.23
	SP	SP
-	ISSUED AS BUILT	21.06.23
	CG	SP
A	DIMENSIONAL UPDATE	21.06.23
	CG	SP
-	ISSUED FOR CONSTRUCTION	18.04.23
	CG	SP
-	ISSUED FOR APPROVAL	29.03.23
	CG	SP
Rev	Comments	Date
		DRW/CHK



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sdslimited.com

Project
CITYLABS 4.0
MANCHESTER

Client
ADANA

Title
ATTENUATION TANK 1 DETAIL

Scale	NTS	Date	29.03.23
Drawing No	E254022_01	Rev	B

REFERENCE DRAWINGS:			
Drawing Number	Revision	Drawing Title	Date
CLAB-ARUP-04-EX-DR-C-2006	CR01	DRAINAGE - GENERAL ARRANGEMENT	-

Hepworth SuperSleve Drainage Specification

Client name –

Date -

Site address –

1 Manufacturer details

Wavin Limited,
Edlington Lane,
Edlington,
Doncaster,
DN12 1BY

T: 0844 856 5165
E: drainage@hepworth.co.uk
W: www.hepworthclay.co.uk
W: www.cpda.co.uk
W: www.myportal.wavin.co.uk

Overview

Hepworth SuperSleve clay drainage system comprises a range of vitrified clay pipes, bends, junctions and fittings available in 100mm, 150mm, 225mm and 300mm diameters, supplied complete with factory-fitted push-fit flexible couplings or plain ended with separate couplings to be fitted on site. SuperSleve products are suitable for foul and surface water drainage in housing, adoptable, commercial, industrial and highway drainage applications. Correctly installed it has a lifetime expectancy of over 100 years.

Benefits of Hepworth Clay

Sustainability – Clay is a future-proof material, 100% natural and 100% recyclable.

Quality – Kitemarked to BS EN 295-1, supported by a declaration of performance and CE mark.

Strength and durability – Naturally high product strength enhances in-use performance resulting in a lifetime expectancy of over 100 years.

Bedding performance – Recycled aggregates arising from selected construction demolition waste are approved for use with clay pipes.

Jetting performance – Hepworth SuperSleve pipes carry a lifetime jetting guarantee, jet proof to 7500 psi* *please refer to current trade price list for details.*

Chemical resistance – Clay is inert, so is unaffected by any effluent approved for discharge into a public sewer.

Product Standards and Specification Clause

BS EN 295-1:2013 Vitrified clay pipe systems for drains and sewers.

Requirements for pipes, fittings and joints

BS EN 295-5:2013 Vitrified clay pipe systems for drains and sewers.

Requirements for perforated pipes and fittings

BS EN 681-1:1996 Elastomeric seals. Material requirements for pipe joint seals used in water and drainage applications. Vulcanized rubber

Drains and sewers from 100mm to 300mm diameter shall be constructed using Hepworth SuperSleve Vitrified Clay Pipes, fittings and push fit flexible couplings kitemarked to BS EN 295-1:2013, with joint system E. Installed in accordance with the manufacturers recommendations with the following minimum pipe crushing strengths.

Minimum Pipe Crushing strength

100 mm – 40 kN/m	Pipe class – not required
150 mm – 40 kN/m	Pipe class – not required
225 mm – 45 kN/m	Class 200
300 mm – 72 kN/m	Class 240

Quality Assurance

BS EN ISO 9001:2008 Quality Management Systems – Requirements

BS EN ISO 14001:2004 Environmental Management Systems. Certificate No. 42231

2 Installation

2.1 Excavation

Set aside turf, topsoil, sub-base and good quality subsoil for use in re-instatement. Trench width to be as small as is practicable but no less than pipe o.d. plus 300 mm to allow working space. Locally increase excavation size to allow installation of inspection chambers and manholes.

2.2 Pipe bedding

The following specification is suitable in all areas other than –

Beneath non-trafficked areas where the cover to the crown of the pipe is less than 450 mm. (On private drains or sewers only, adoptable sewers to have min 0.9 metres cover). See section 2.3

Beneath ground bearing concrete slabs where the clearance between pipe crown and slab underside is less than 300 mm. See section 2.3

Beneath trafficked flexible pavement where clearance between pipe crown and the underside of construction is less than 450 mm. (On private drains or sewers only, adoptable sewers to have min 1.2 metres cover). See section 2.3

In ground where the trench formation has little bearing strength e.g. soft ground, running sand etc.

(For detailed advice see Technical note No 1 in the Hepworth literature).

Bedding Class F

Bedding Factor 1.9

Max cover depth in trafficked and non-trafficked areas - 7.5 metres
(all pipe diameters)

a) Lower bedding (between trench bottom and underside of pipe)

To be minimum 50 mm depth of granular material of either –

20 mm single-sized, or

20 mm graded, or

20 mm single sized re-cycled aggregate material to BRE Digest 433 class RCA (II) or RCA (III) with a compaction fraction value < 0.2, or

20 mm down re-cycled aggregate material to BRE Digest 433 class RCA (II) or RCA (III) with a compaction fraction value < 0.2

b) Upper bedding (between lower bedding and half-pipe level).

Sidefill (between lower bedding and pipe crown).

Initial backfill (minimum 150 mm above crown of pipe)

All to be either –

As-dug material (if suitable i.e. free from stones greater than 40 mm and lumps of clay greater than 100 mm), or

Other compactable material (free from particles greater than 40 mm e.g. Sand, all-in aggregate or other granular material)

20 mm single sized re-cycled aggregate material to BRE Digest 433 class RCA (II) or RCA (III) with a compaction fraction value < 0.2, or

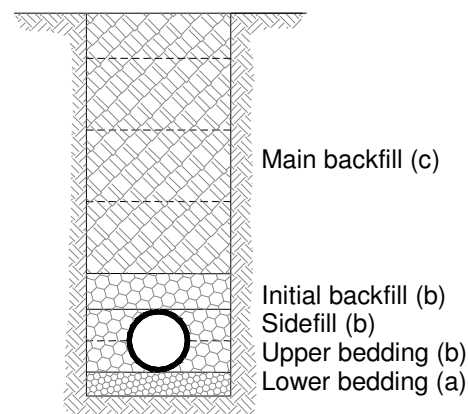
20 mm down re-cycled aggregate material to BRE Digest 433 class RCA (II) or RCA (III) with a compaction fraction value < 0.2

c) Main Backfill (above initial backfill)

To be either –

As-dug material, or

D.O.T. Type 1



No mechanical compaction should be used until the first 300 mm has been placed. The remainder should be compacted in 300 mm layers.

2.3 Concrete protection

Where the pipe bedding detail is not suitable a minimum 150 mm Concrete surround (min strength C20P) should be applied. A flexible joint should be inserted at the end of each coupling joint of minimum thickness 18 mm, which should extend to the edge of the encasement. Alternatively, where pipes are laid beneath concrete slabs they may be cast-in monolithically in a local thickening of the slab without the need for flexible boards. A flexible coupling joint should always be placed within 150 mm of the face of any concrete with a further joint no more than 600 mm away, where pipes emerge into flexible bedding.
(note – this detail does not apply in poor ground – see note above).

2.4 Pipe cutting

Pipe cutting can be minimized by using pre-cut lengths available in 100, 150, 225 and 300 mm diameters in 300, 600 and 1000 mm lengths

Appropriate personal protective equipment should be used at all times when cutting clayware pipes.

Lever type chain cutters should be used on 100 and 150 mm pipes.

For 225 and 300 mm pipes use a masonry saw fitted with a diamond tipped blade or standard carborundum blade.

Cut pipe ends should be trimmed using the pipe trimmer (code MPT1) for 100 and 150 mm diameters or an emery stone for larger sizes.

2.5 Pipe jointing

Always use purpose made Hepworth pipe lubricant. Clean and lubricate the pipe end to be jointed. Push a coupling onto the lubricated end until the pipe reaches the central rib. Clean and lubricate the other end of the pipe. Push the pipe (lubricated end first) into the coupling of the previously laid pipe. Take care not to let soil or stones enter the joint. For 100 and 150 mm diameters pipes need not be mechanically supported. For larger diameters slings should be used to support the pipe but the jointing force must still be applied by hand.

2.6 Workmanship

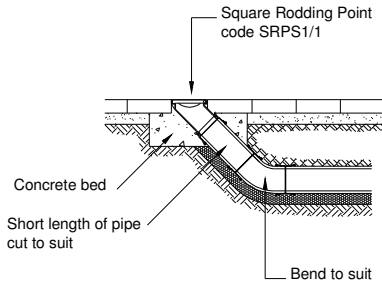
Installation of private drains and sewers should conform to BS EN 752 “Drains and Sewer Systems outside buildings”, BS EN 1610 “construction and testing of drains and sewers” and part H of the building regulations. Adoptable sewers should be installed in accordance with the current edition of the “Sewers for Adoption” manual and the relevant Water Company requirements.

3 Access points

Various types of pre-formed access points are available from Hepworth, please see the tick box to determine which products are applicable to this particular development.

AP1 – Rodding point

Applicable ☒



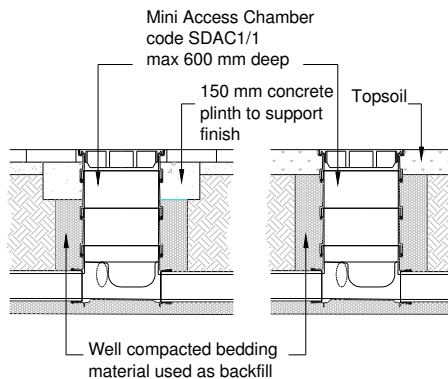
Max depth – n/a
Loading 35 kn (1 tonne wheel load)
Airtight
Screwed down cover

AP2 – Mini Access Chamber

Applicable ☒

Sited in driveways/ paved areas

Sited in landscaped areas

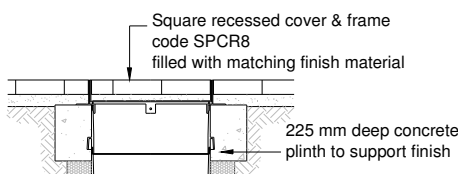


Max depth – 0.6 metres
Loading 35 kN (1 tonne wheel load)
Airtight
Screwed down cover
Main channel – 100 mm
Side inlets – 2 no 100 mm at 45 °

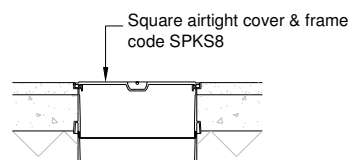
AP3 – Polypropylene Inspection Chamber

Applicable ☒

Sited in driveways / hard landscaped areas
With recessed cover

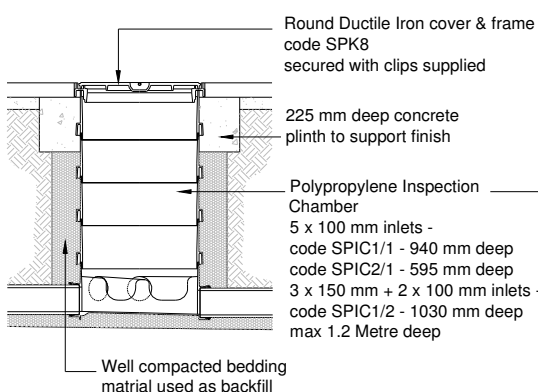


Sited in concrete floor slab

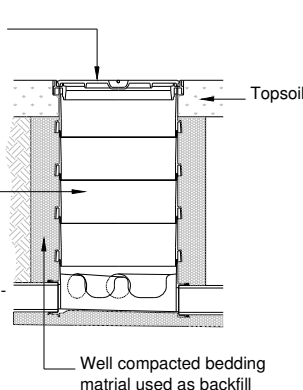


Max depth – 1.2 metres
Loading 35 Kn (1 tonne wheel load)
Airtight – square cover only
Screwed down – square cover only
SPIC1/1 & SPIC2/1 –
Main channel – 100 mm
Side inlets – 2 no 100 mm at 45 °
- 2 no 100 mm at 90 °

Sited in driveways / hard landscaped areas
With standard round cover



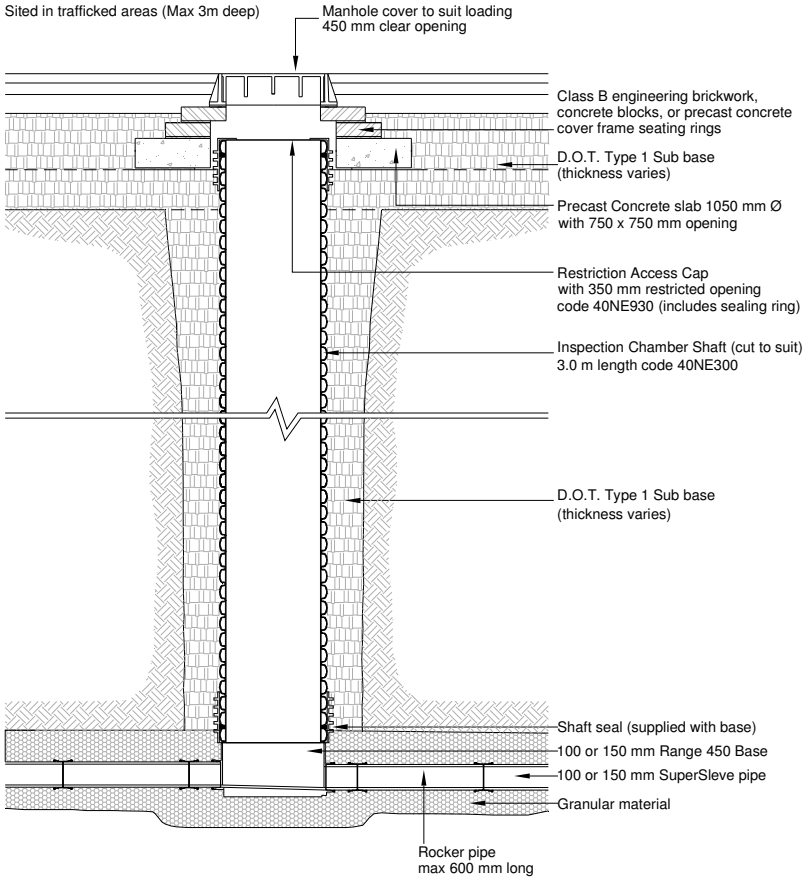
Sited in soft landscaped areas
With standard round cover



SPIC1/2 –
Main channel – 150 mm
Side inlets – 2 no 100 mm at 45 °
- 2 no 150 mm at 90 °
Standard depth units can be raised
Using a 175 mm raising piece – code
SPIC4 and a seal code SPIC5

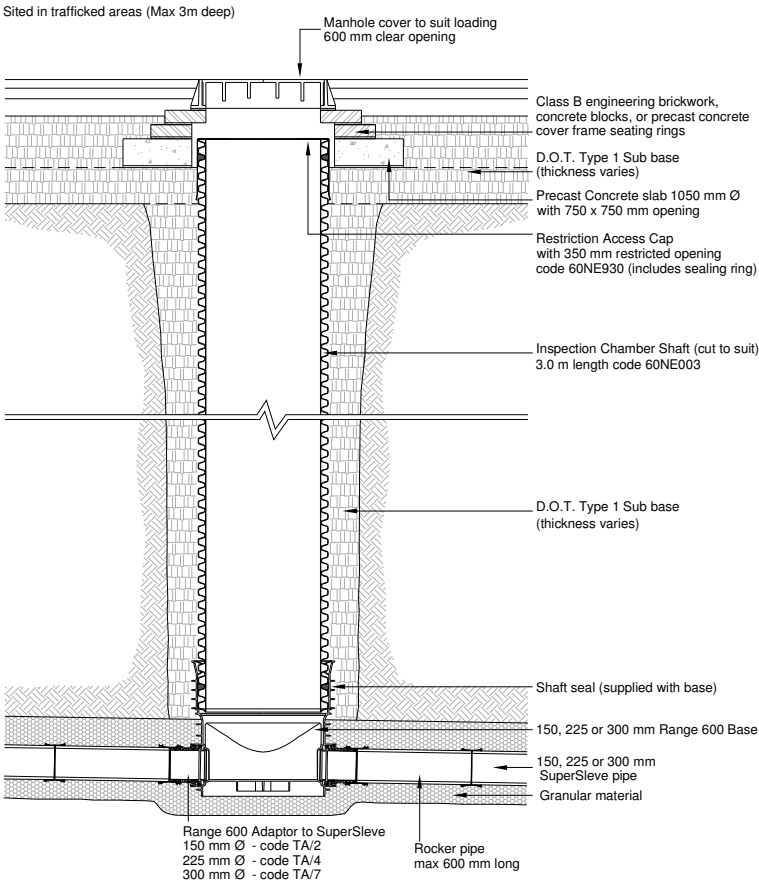
AP7 – Range 450 Inspection Chamber

Applicable ☒



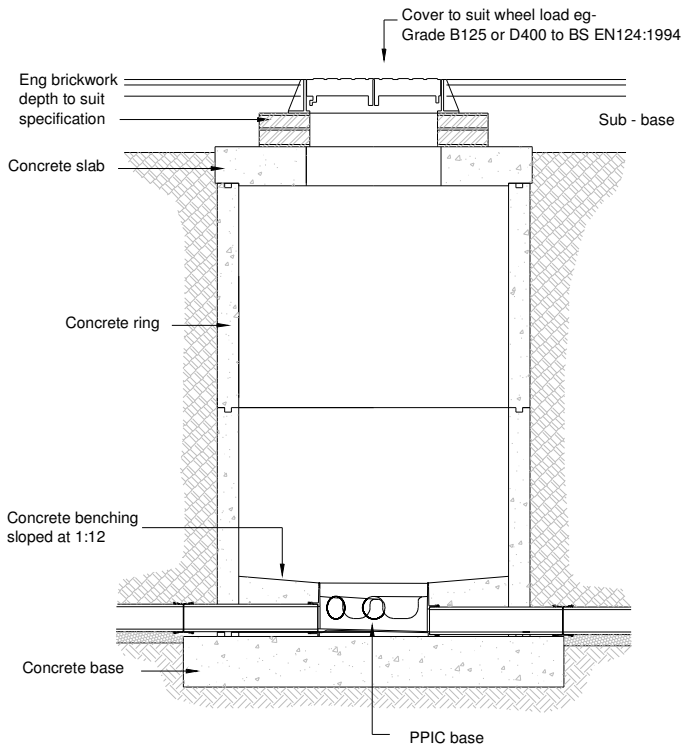
AP8 – Range 600 Inspection Chamber

Applicable ☐



AP6 - Concrete ring manhole with PPIC base

Applicable ☒



Max depth – dependant on pipe diameter, ring diameter and type of access (i.e. steps ladder or winch)
Loading – dependant on type of cover.
Airtight - dependant on type of cover.
Screwed down – dependant on type of cover.
PPIC base alternatives –
SPIC6/1 –
Main channel – 100 mm
Side inlets – 2 no 100 mm at 45 °
 - 2 no 100 mm at 90 °
SPIC6/2 –
Main channel – 150 mm
Side inlets – 2 no 100 mm at 45 °
 - 2 no 150 mm at 90 °

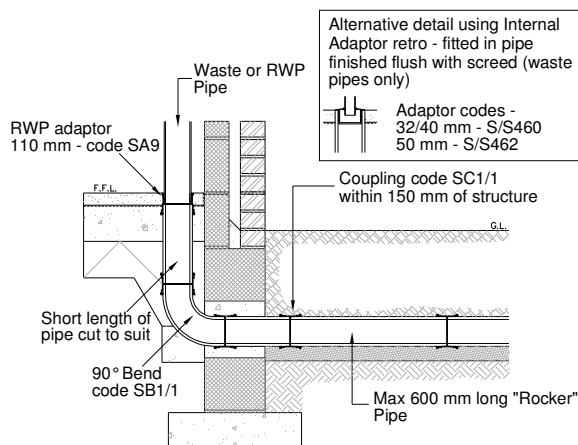
4 Terminal connection points

4.1 Direct Connections

Direct connections are made to the drainage system through a 90 ° bend and the appropriate adaptor. Please read the tick box to determine which products are applicable to this particular development.

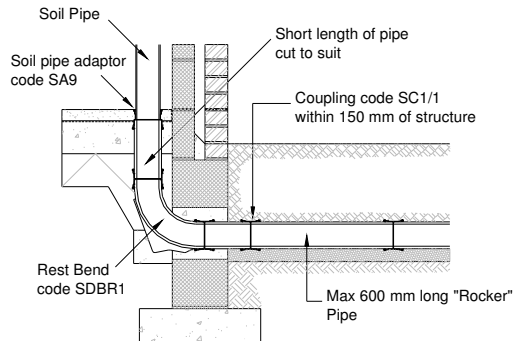
DC1 – internal waste pipe connection

Applicable ☒



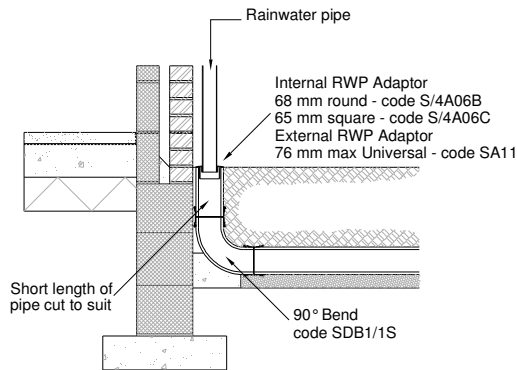
DC2 – Soil stack / Stub stack / WC connection

Applicable ☒



DC4 – External Rainwater pipe connection

Applicable ☒

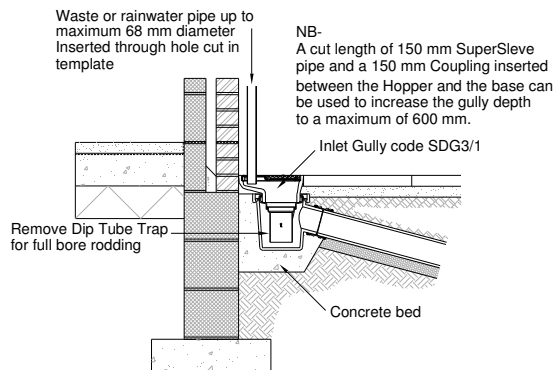


4.2 Gully connections (Trapped)

The selection of the correct gully will depend on the diameter and shape of the waste or rainwater pipe, the need for rodding access and the security of the grid. Hopper and trap combinations are not roddable. Please read the tick box to determine which products are applicable to this particular development.

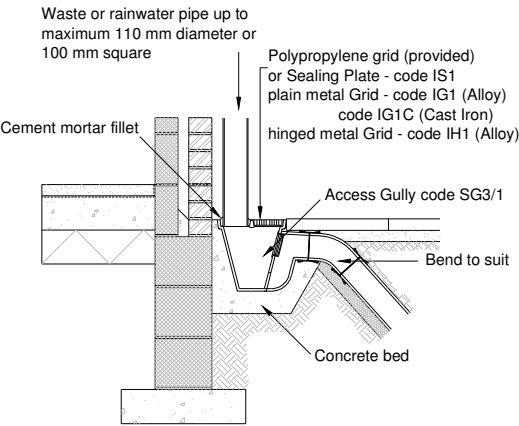
GC1 – inlet Gully connection

Applicable ☐



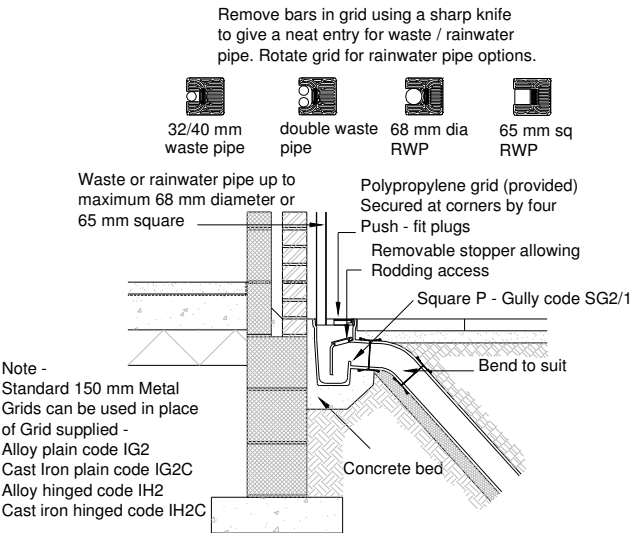
GC2 – Access Gully Connection

Applicable ✓



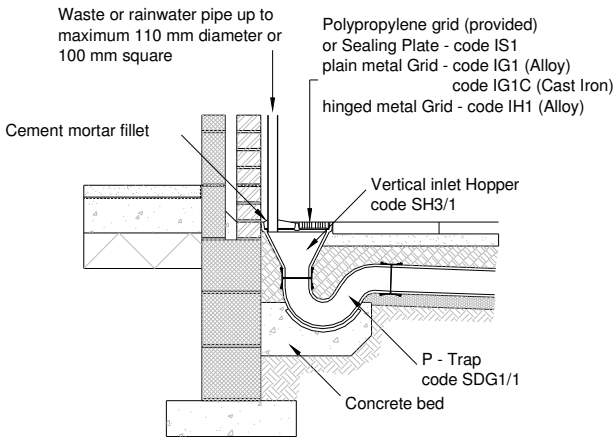
GC3 – Square P-Gully Connection

Applicable ✓



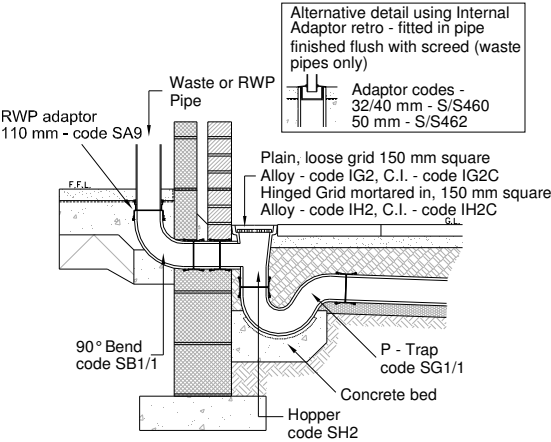
GC4 – Vertical inlet Hopper connection (trapped)

Applicable ✓



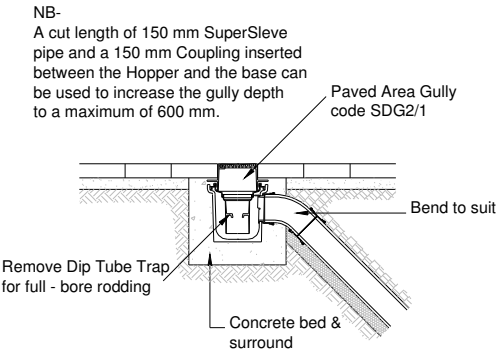
GC5 – Horizontal Inlet Hopper connection (trapped)

Applicable ✓



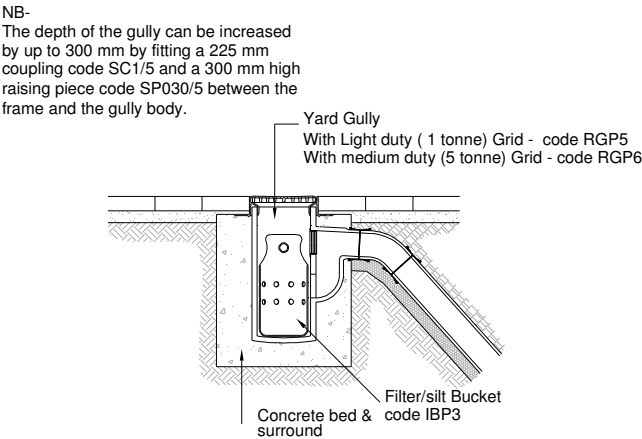
GC6 – Paved Area Gully connection

Applicable ✓



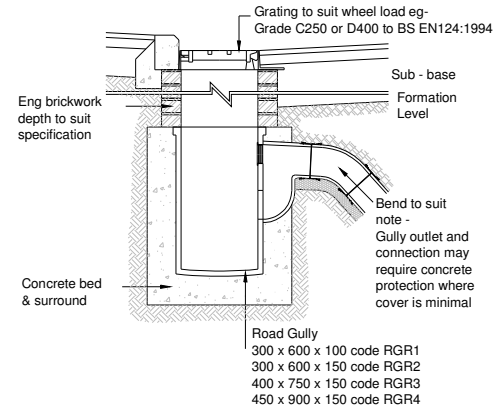
GC8 – Yard Gully connection

Applicable ✓



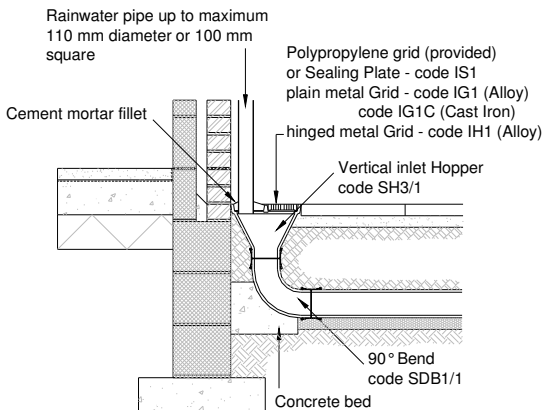
GC9 – Road Gully connection

Applicable ✓



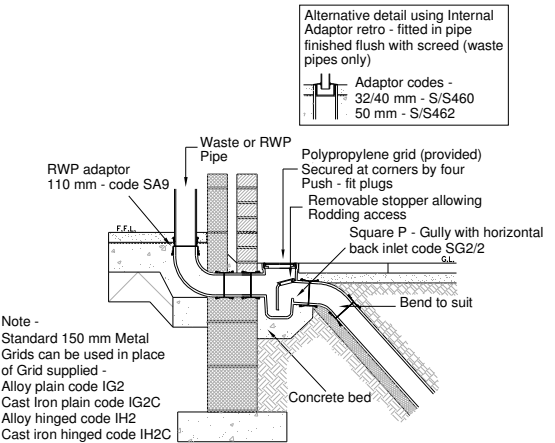
GC10 - Vertical inlet Hopper connection (untrapped)

Applicable ✓



GC13 - horizontal Inlet Square – P Gully connection

Applicable ✓



5 Testing

A test for watertightness using the air or water test should be applied initially after the system has been installed, before any backfilling, and again after backfilling is complete.

5.1 Cleaning

Flush out the whole of the system with water to remove any silt and debris before final tests are applied.

5.2 Air test

For pipes up to 300 mm diameter apply a pressure of 110 mm water gauge for approximately 5 minutes before testing. The pipe should then hold an initial 100 mm pressure with a maximum loss of head on a manometer of 25 mm, in 5 minutes for 100, 150 and 225 mm pipelines, or 7 minutes for 300 mm pipelines.

5.3 Water test

For pipes up to 300 mm diameter fill the system with water to a maximum depth of 5 metres above the lowest invert in the test section and a minimum depth of 1 metre above the highest invert in the test section. On steep runs it may be necessary to test in sections, to avoid exceeding the maximum head. This should then be left for one hour to condition the pipeline. The level of water should then be maintained for a period of 30 minutes by topping up to within 100 mm of the required level throughout the test. The quantity of water used should be recorded.

The loss per square metre of internal pipe surface area should not exceed –

- 0.15 litres for test lengths consisting of pipes only,
- 0.20 litres for test lengths including pipes and manholes,
- 0.40 litres for tests on inspection chambers or manholes only.

As a guideline, per 10 metres of pipe run, this equates to –

Pipe diameter	100 mm	150 mm	225 mm	300mm
Permitted loss (litres)	0.47	0.72	1.07	1.41

Please note –

No responsibility for any errors or omissions will be accepted.