

Hammerstone Road Depot, Manchester

SuDS Verification Report

Curtins Ref: HRD-CUR-XX-00-RP-C-92000

Revision: P01

Issue Date: 08 September 2025

Client Name: Morgan Sindall

Site Address: Hammerstone Road Depot, Gorton, Manchester, M18 8EQ

Rev	Description	Issued by	Checked	Date
P01	First Issue	JC	ATL	08 September 2025

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Reviewed		Date
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Contents

1 Introduction	4
2 Drainage Strategy	6
3 Verification	8
4 General Maintenance	18

Appendices

Appendix A

Final Construction Drawings

Appendix B

Flood Defence Consent – Reference NW_South_2016_528

S106 Approval – Reference 02926533

Appendix C

Drainage Components Manufacturer's Information

1 Introduction

1.1 Project Background

Curtins have been appointed by Morgan Sindall to provide a SuDS Verification Report for the proposed below ground drainage design for Hammerstone Road Depot, Manchester.

The report is based on currently available information and best practice guidance.

Proposals contained or forming part of this report represent the design intent and may be subject to alteration or adjustment in completing the detailed design for this project. Where such adjustments are undertaken as part of the detailed design and are deemed a material deviation from the intent contained in this document, prior approval shall be obtained from the relevant authority in advance of commencing such works.

The surface water network has been designed to accommodate the 1 in 100-year storm rainfall event plus 40% for climate change. As the flows are being attenuated within on-site features there will be a period of time after storm events where the network is still partially or fully surcharged and is draining down. Where this surcharging is still present after 48hrs appropriate action should be taken.

1.2 Planning Condition

This report has been produced in order to satisfy the discharge requirements of Condition 12 which is as follows:

12) No development hereby permitted shall be occupied until details of the implementation, maintenance and management of the sustainable drainage scheme have been submitted to and approved by the local planning authority. The scheme shall be implemented and thereafter managed and maintained in accordance with the approved details. Those details shall include:
Verification report providing photographic evidence of construction as per design drawings;
As built construction drawings if different from design construction drawings;
Management and maintenance plan for the lifetime of the development which shall include the arrangements for adoption by any public body or statutory undertaker, or any other arrangements to secure the operation of the sustainable drainage scheme throughout its lifetime.

Reason- To manage flooding and pollution and to ensure that a managing body is in place for the sustainable drainage system and there is funding and maintenance mechanism for the lifetime of the development, pursuant to policies EN08 and EN14 of the Manchester Core Strategy (2012).

1.3 Scope of the Maintenance Strategy

This report demonstrates the below ground drainage which has been installed for the development site and provides product information to inform future maintenance requirements.

This manual is intended to give an overview of the operation and maintenance for the drainage features included with the drainage strategy and in relation to typical details only. Where proprietary products are specified the manufacturer's instructions and recommendations should be followed in priority to this document unless specifically noted otherwise due to project constraints.

The recommended operations and frequencies are typical only and should be more frequent initially to ensure that there are no unforeseen issues with the operation and then adjusted to suit the site requirements.

2 Drainage Strategy

2.1 General

The drainage networks on site are private drainage network.

The drainage network is a separate foul and surface water system within the development. The foul network discharges to a public combined sewer.

The surface water drainage discharges to an existing culvert in the north of the site.

2.2 Foul Drainage

The new private foul drainage within the site connects to the existing private manhole in the south of the site, which discharges to the existing combined sewer within Gorton Lane.

Surface water from the washdown area discharges to the foul water sewer in Hammerstone Road, reusing the existing connection to UU2801.

The peak flow from the site has been determined as 26.7 l/s, based on a total of 1453.8 Discharge Units, provided by the M&E Designer.

The as-built drainage drawings are attached in appendix A.

2.3 Surface Water Drainage

Any new development site drainage should be designed in accordance with current best practice to provide adequate capacity not to flood for the critical 1 in 30-year storm event and flood water generated for up to the critical 1 in 100-year plus climate change storm event shall be constrained within the areas on site so not to cause damage to buildings, essential services or adjoining developments and services.

Assessment was completed at preliminary design stage to confirm the most viable method of discharge was connection to the existing culverted watercourse via a new manhole at a restricted rate.

The discharge from the site is via three separate outfalls:

- The roof drainage is served by a siphonic drainage system, and discharges to an existing watercourse at manhole SRH08.
- The main car park hardstanding area is served by a gravity drainage network, and discharges to the existing watercourse at manhole SRH06.
- The washdown area is served via a separate network, which discharges to the public foul sewer in Hammerstone Road, as agreed with United Utilities. A Trade Effluent agreement has been agreed. The connection is made to the existing foul drainage at manhole BS4.

The discharge rates for the drainage is summarise in Table 1:

Table 1: Discharge Rates

Discharge Point	Discharge Rate (l/s)		
	1-Year Storm	30-Year Storm	100-Year Storm (+45% Climate Change)
Discharge 1 (SRH08)	18.1 l/s		
Discharge 2 (SRH09)	45 l/s	107 l/s	140 l/s
Discharge 3 (BS4)	5 l/s		

Cellular attenuation tanks have been provided to accommodate the restricted flow rates:

- Discharge 1 (SRH08): 643m³
- Discharge 2 (SRH09) 737m³
- Discharge 3 (BS4) 40m³

Surface Water Drainage

Surface water run-off from hard paved areas at risk of contamination should receive water quality treatment. Commercial delivery/service access is considered low hazard in terms of contamination. Figure 10 illustrates the pollution hazard indices for different land use classifications from The CIRIA SuDS Manual C753 (2015).

Due to the urbanized character of the site, the following treatment stages have been provided:

- Petrol interceptor for the main hardstanding area, located under the commercial parking area.
- A washdown/ silt separator for the Washdown area, and silt traps to the drainage channels.

The as-built drainage drawings are attached in the appendix A. The drawings show the main surface water drainage runs and attenuation tanks as constructed.

2.4 Approvals

A Section 106 agreement was approved by United Utilities (Ref 02926533).

Consent of the Discharge of Trade Effluent (Ref 39927)

Copies of the approvals are available in Appendix B.

3 Verification

3.1 Introduction

The Verification section has been developed with reference to the drainage design details and philosophy provided in section 2 of this report. Manchester City Council requirements are to verify the installation of the drainage and SuDS to confirm by photographic record that this has been installed.

The following elements have been recorded to date:

- Attenuation Tank – Phase 1
- Attenuation Tank – Phase 2
- Flow Control Chambers
- Petrol Interceptor – Phase 1
- Washdown/silt separator – Phase 1

A CCTV survey has also been provided along with as-built record information for part of the main drainage works to the site.

3.2 Photographic Information

Figure 2 - Attenuation Tank Installation Phase 1 – Tank 1



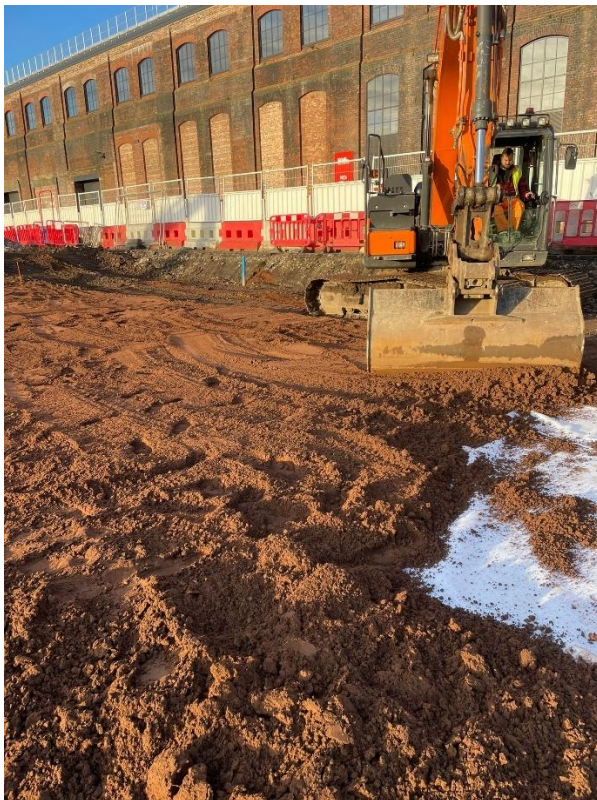




Figure 3 - Attenuation Tank Installation Phase 2 – Tank 2



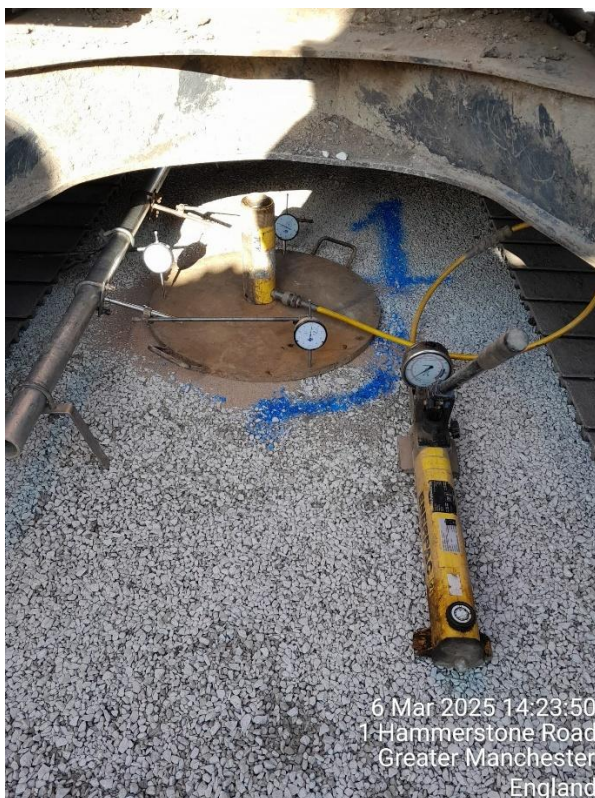
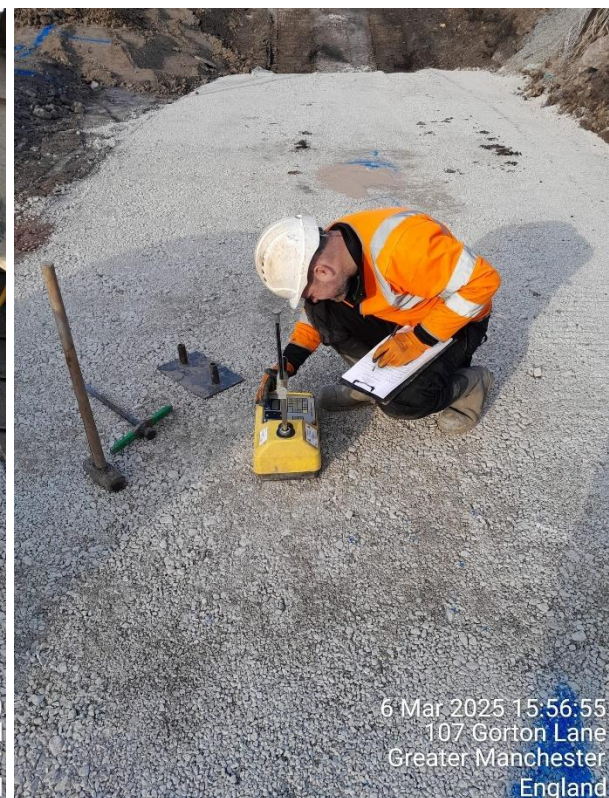
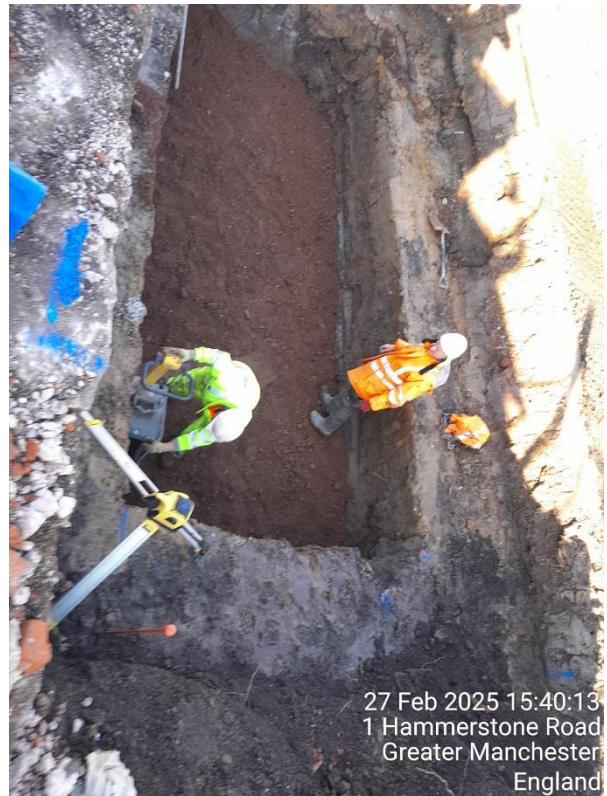


Figure 4 – Interceptor Tank





Figure 4 – Interceptor Tank





3.3 CCTV Survey and As-built Information

A number of CCTV Surveys have been completed on the installed drainage network, ranging between April and June 2025. The CCTV covers the Phase 1 and 2 works for the drainage scheme.

A further CCTV survey is to be undertaken to pick up the final portion of the drainage works. Once this section of the CCTV works has been completed, this report will be updated.

The as-built surface and foul water CCTV drainage surveys have been reviewed and indicate the drainage has been constructed to the required standards, in accordance with the survey information provided.

The survey confirms at this time; the drainage network was in general good condition, and no remedial works are required.

There have been a number of minor changes to the drainage through the construction phase. These have been necessary due to on-site issues. The changes do not have an impact on the overall drainage philosophy, and the drainage design is still in line with the requirements of the Planning Approval.

The drainage drawings have been updated to include the as-constructed details provided by the contractor, and are available in Appendix A.

4 General Maintenance

4.1 Components

This section is intended to give an overview of the operation and maintenance for the drainage features included with the drainage strategy and in relation to typical details. Where proprietary products are specified, the manufacturer's instructions and recommendations should be followed in priority to this document unless specifically noted otherwise due to project constraints.

The recommended operations and frequencies are typical only and should be more frequent initially to ensure that there are no unforeseen issues with the operation and then adjusted to suit the site requirements.

The following components have been included within the drainage design for the proposed development:

- Inspection, Manhole and Catchpit Chambers
- Pipes
- Drainage Channels and Gullies
- Attenuation Tanks
- Flow Control Unit – Hydrobrakes
- Petrol Interceptors

The location of all drainage is indicated on Curtins drainage drawings enclosed in Appendix A.

A suitable maintenance strategy should be adopted to ensure the drainage network is cleaned regularly and the routine maintenance and cleansing regime should be documented.

It is assumed that the maintenance of the private drainage network will be the responsibility of an on-site facilities management team.

The surface water network has been designed to accommodate the 1 in 100-year storm rainfall event plus an allowance for 45% climate change particular to the requirements of the site. As the flows are being attenuated on site and within SuDs features there will be a period of time after storm events where the network is still partially or fully surcharged and is draining down. Where this surcharging is still present after 48hrs appropriate action should be taken as noted below.

It is recommended that the drainage system is inspected as a minimum twice a year, with the system also being inspected after any major storm event.

Significant sediment deposition is likely in areas used for storage, so a post clean-up operation may be required including the removal of litter, vegetation, sewerage debris and larger objects.

Long-term management practices include monthly sweeping of external paved areas. The sweeping program will remove sand and contaminants directly from paved surfaces before they become mobilised during storm events and transported to the drainage system.

During the winter months, drainage features such as gullies and channels should be cleared of ice, snow, debris, or litter.

Sediment/material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols; especially where run-off is taken from potentially contaminated areas such as the filter drains and the upstream/downstream chambers.¹

4.2 Inspection, Manhole and Catchpit Chambers

The locations of the chambers are indicated on Curtins drainage drawings HRD-CUR-XX-00-DR-C-92-504 & 508

Access points have been located at the head of each run, at a change in direction and at a change of pipe size in accordance with Building Regulations Part H.

The appropriate barriers and signage should be installed during any opening of manholes to warn site users/pedestrians.

When accessing chambers, the latest Health and Safety legislation should be adhered to.

The appropriate health and safety equipment must be used when accessing manholes. Confined space certificates must be held by any personnel entering a manhole and the appropriate permits should be obtained from the Facilities Maintenance Manager prior to any access.

Sediment/material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols; especially where run-off is taken from potentially contaminated areas.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required)	Initial inspection should be provided as post construction CCTV survey.	N/A
	Inspect for evidence of poor operation via water level in chambers. If required, take remedial action.	3-monthly, 48 hours after large storms.
Occasional maintenance	Check and remove large vegetation growth near pipe runs.	6 monthly
Remedial actions	Rod through poorly performing runs as initial remediation.	As required.
	If continued poor performance jet and CCTV survey poorly performing runs.	As required.
	Seek advice as to remediation techniques suitable for the type of performance issue and location.	As required If above does not improve performance.

4.3 Pipes

The locations of the pipes are indicated on Curtins drainage HRD-CUR-XX-00-DR-C-92-504 & 508.

Pipes are proprietary products, and the materials can vary across the site and as such where used the manufacture's recommendations should be followed. Regardless of the product used the pipes are fully compliant with the Curtins drainage specification.

Pipes are intended to be the main conveyance across the development and where oversized they form the attenuation volume required by the limitation of the discharge rate. They are intended to be dry except for during rainfall events. These have been designed to be self-cleansing where possible for smaller diameter pipes, and for larger diameters the risk is reduced due to the overall pipe size.

Access for maintenance is provided through access chambers and manholes.

Regular inspection and maintenance are important to identify areas which may have been obstructed/clogged and may not be drainage correctly thus exposing the development to a greater level of flood risk.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Initial Inspection should be provided as post construction CCTV survey.	N/A
Regular maintenance\ inspection	Inspect for evidence of poor operation via water level in chambers. If required, take remedial action.	3-monthly, 48 hours after large storms.
	Check and remove large vegetation growth near pipe runs.	Monthly or as required
Remedial Action	Rod through poorly performing runs as initial remediation.	As required.
	If continued poor performance jet and CCTV survey poorly performing runs.	As required.
	Seek advice as to remediation techniques suitable for the type of performance issue and location.	As required If above does not improve performance.

4.4 Drainage Channels and Gullies

The locations of the drainage channels and gullies are indicated on Curtins drainage drawings HRD-CUR-XX-00-DR-C-92-504 & 508.

Channels and gullies should be inspected and cleaned in accordance with the manufacturer's details.

Channels and gullies installed have removable covers to allow cleaning and clearing of debris and silt.

Channel units can be cleaned through the use of a high-pressure hose; this can be fed into the channel system through access units strategically placed along the channel run. The throat section of channel units should be kept clear at all times to ensure uninterrupted flow of surface water into the drainage channel and any debris within the throat should be removed.

The appropriate barriers and signage should be installed during any opening of gullies/channel outlet boxes to warn site users/pedestrians.

Locking bolts should be replaced and sufficiently tightened, taking care that the bolt heads do not stand above the top surface of the cover or grate. If covers are allowed to move within their frame, this may cause damage to the frame or seating.

Sediment/material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols; especially where run-off is taken from potentially contaminated areas such as the car park drainage.

Manufacturers information is enclosed in Appendix C.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Initial Inspection.	Half yearly and after large storms.
Regular maintenance\ inspection	Litter and debris removal	Monthly or as required.
	Check and remove large vegetation growth near gully gratings.	Monthly or as required
	Inspect for evidence of poor operation and/or weed growth. If required, take remedial action. Inspect silt accumulation rates and establish appropriate brushing frequencies. Silt can also be caused by adjacent landscaping areas which should be reprofiled to	3-monthly, 48 hours after large storms.

	provide a flat area or berm adjacent to the paving.	
Remedial Action	Inspect sumps and outlet pipes and rod through poorly performing channels and outlets as initial remediation.	As required.
	<p>Inspect for evidence of poor operation and/or weed growth. If required, take remedial action.</p> <p>Inspect silt accumulation rates and establish appropriate brushing frequencies. Silt can also be caused by adjacent landscaping areas which should be reprofiled to provide a flat area or berm adjacent to the paving.</p>	3-monthly, 48 hours after large storms.
Regular maintenance\ inspection	Brushing and Vacuuming	Three times/year at end of winter, mid-summer, after autumn leaf fall, or as required based on site specific observations of clogging or manufacturers' recommendations.
Occasional maintenance	Stabilise and mow contributing and adjacent areas.	As required and as per landscape architect's specification.
	Removal of weeds	As required.
Remedial Action	Remediate any landscaping which, through vegetation maintenance or soil slip, has been raised to within 50 mm of the level of the paving.	As required.
	Remedial work to any depressions, rutting and cracked or broken blocks considered detrimental to the structural performance or a hazard to users.	As required.

	Rehabilitation of surface and upper sub-structure. This could include replacement of the jointing and bedding material. The upper geotextiles layer may also need replacing if clogged and Terram 1000 has a life span of 25 years.	As required (if infiltration performance is reduced as a result of significant clogging).
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4.5 Attenuation Tanks

The location of the attenuation tanks is indicated on Curtin's drainage HRD-CUR-XX-00-DR-C-92-504 & 508.

The attenuation tanks are geocellular units and are intended for storage of surface water run-off from the site up to and including the 1 in 100-year plus 45% climate change event to reduce the rate of run-off into the downstream network and to minimise flood risk.

The geocellular units are proprietary products and therefore manufacturer's recommendations should also be taken into consideration.

Access for maintenance has been provided by catchpit manhole chambers upstream and downstream of the tank. Vents are also provided to the upstream manholes.

Manufacturers information is enclosed in Appendix C.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Inspect inlets, outlets and overflows for blockages, and clear if required. If faults persist jetting and CCTV survey may be required.	Monthly and after large storms.
Regular maintenance\ inspection	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly.
	Debris removal from catchment surface (where may cause risks to performance).	Monthly
	Remove sediment from pre-treatment structures.	Annually (or as required after heavy rainfall events)

Remedial Actions	Repair/rehabilitation of inlets, outlets and overflows.	As required.
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4.6 Flow Control Chamber (Orifice Plate)

The location of the Flow Control Chambers are indicated on Curtin's drainage HRD-CUR-XX-00-DR-C-92-504 & 508

The flow control units are intended for source control and flow restriction.

The flow controls are a Hydro-brake Optimum unit and is a proprietary product; therefore, manufacturer's recommendations should also be taken into consideration.

Access for maintenance has been provided by locating within a manhole chamber.

Manufacturers information is enclosed in Appendix C.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Inspect inlets for blockages, and clear if required. If faults persist jetting and CCTV survey may be required.	Monthly and after large storms.
Regular maintenance\ inspection	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly.
	Debris removal from catchment surface (where may cause risks to performance).	Monthly
	Remove sediment from pre-treatment structures and flow control chambers.	Annually (or as required after heavy rainfall events)
Remedial Actions	Repair/rehabilitation of inlets.	As required.

4.7 Petrol Interceptors

The locations of the Petrol Interceptors are indicated on Curtin's drainage drawings HRD-CUR-XX-00-DR-C-92-504 & 508

The petrol interceptors are proprietary products and therefore manufacturer's recommendations should also be taken into consideration.

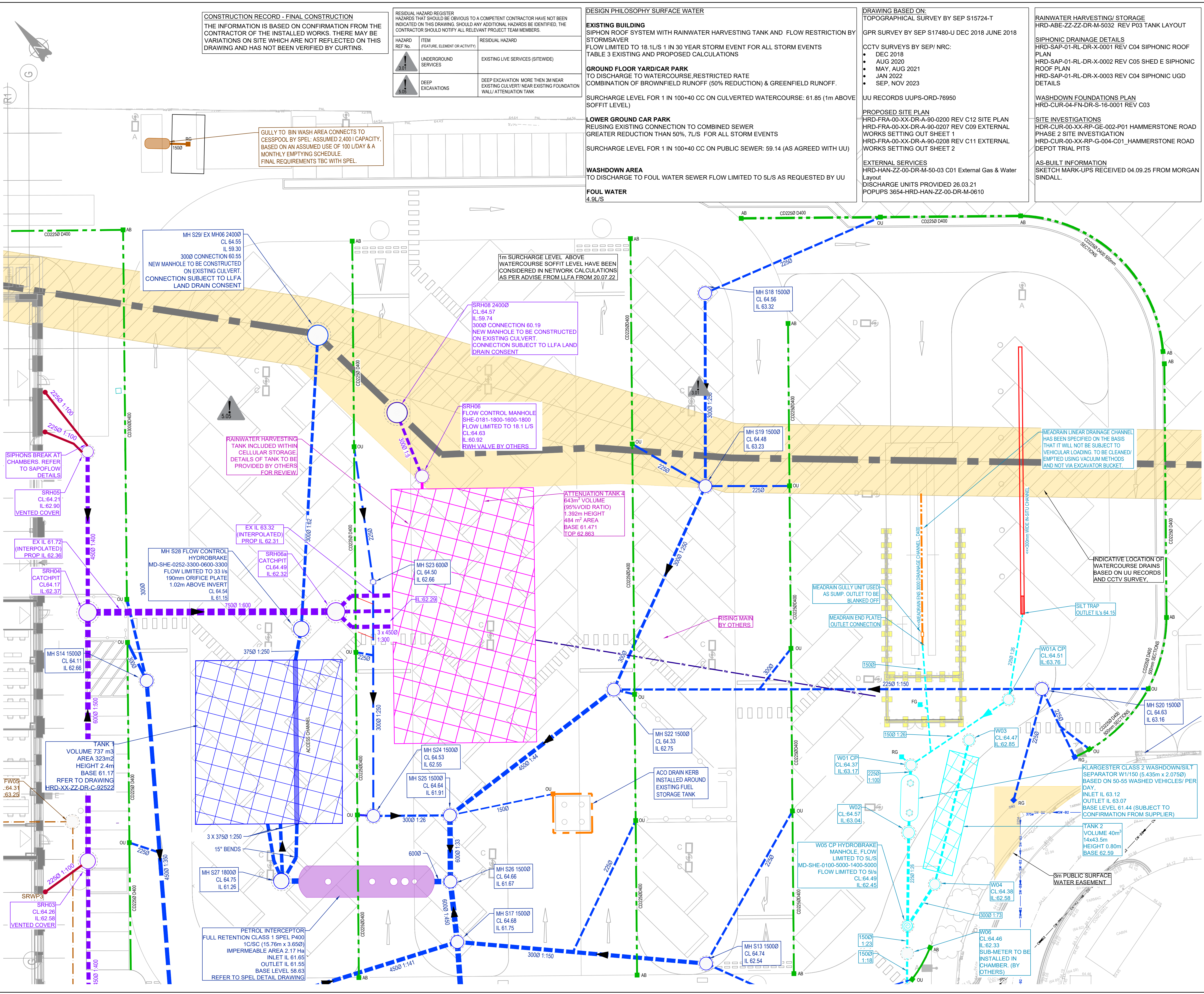
Access for maintenance is provided by access tunnels within the interceptors.

Sediment\material removal should be undertaken in consultation with the environmental regulator to confirm appropriate protocols; especially where run-off is taken from potentially contaminated areas such as the chamber containing Smart Filters.

Maintenance Schedule	Required Action	Frequency
Monitoring (to be undertaken more regularly within the first year of operation and adjusted as required).	Inspect inlets and outlets for blockages, and clear if required. If faults persist jetting and CCTV survey may be required.	Monthly and after large storms.
Regular maintenance\ inspection	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly.
	Debris removal from catchment surface (where may cause risks to performance).	Monthly
	Remove sediment from pre-treatment structures and filter chambers.	Annually (or as required after heavy rainfall events)
Remedial Actions	Repair/rehabilitation of inlets/outlets.	Required.

Appendix A

Final Construction Drawings



CONSTRUCTION RECORD - FINAL CONSTRUCTION
THE INFORMATION IS BASED ON CONFIRMATION FROM THE CONTRACTOR OF THE INSTALLED WORKS. THERE MAY BE VARIATIONS ON SITE WHICH ARE NOT REFLECTED ON THIS DRAWING AND HAS NOT BEEN VERIFIED BY CURTINS.

RESIDUAL HAZARD REGISTER
HAZARDS THAT SHOULD BE OBVIOUS TO A COMPETENT CONTRACTOR HAVE NOT BEEN INDICATED ON THIS DRAWING. SHOULD ANY ADDITIONAL HAZARDS BE IDENTIFIED, THE CONTRACTOR SHOULD NOTIFY ALL RELEVANT PROJECT TEAM MEMBERS.

HAZARD REF No.	ITEM (FEATURE, ELEMENT OR ACTIVITY)	RESIDUAL HAZARD
3.01	UNDERGROUND SERVICES	EXISTING LIVE SERVICES (SITEWIDE)
5.05	DEEP EXCAVATIONS	DEEP EXCAVATION MORE THEN 3M NEAR EXISTING CULVERT NEAR EXISTING FOUNDATION WALL ATTENUATION TANK

DESIGN PHILOSOPHY SURFACE WATER
EXISTING BUILDING
SIPHON ROOF SYSTEM WITH RAINWATER HARVESTING TANK AND FLOW RESTRICTION BY STORMSAVER
FLOW LIMITED TO 18.1L/S 1 IN 30 YEAR STORM EVENT FOR ALL STORM EVENTS
TABLE 3 EXISTING AND PROPOSED CALCULATIONS
GROUND FLOOR YARD/CAR PARK
TO DISCHARGE TO WATERCOURSE, RESTRICTED RATE
COMBINATION OF BROWNFIELD RUNOFF (50% REDUCTION) & GREENFIELD RUNOFF.
SURCHARGE LEVEL FOR 1 IN 100+40 CC ON CULVERTED WATERCOURSE: 61.85 (1m ABOVE SOFFIT LEVEL)
LOWER GROUND CAR PARK
REUSING EXISTING CONNECTION TO COMBINED SEWER
GREATER REDUCTION THAN 50%, 7L/S FOR ALL STORM EVENTS
SURCHARGE LEVEL FOR 1 IN 100+40 CC ON PUBLIC SEWER: 59.14 (AS AGREED WITH UU)
WASHDOWN AREA
TO DISCHARGE TO FOUL WATER SEWER FLOW LIMITED TO 5L/S AS REQUESTED BY UU
FOUL WATER
4.9L/S

DRAWING BASED ON:
TOPOGRAPHICAL SURVEY BY SEP S15724-T
GPR SURVEY BY SEP S17480-U DEC 2018 JUNE 2018
CCTV SURVEYS BY SEP/ NRC:
• DEC 2018
• AUG 2020
• MAY, AUG 2021
• JAN 2022
• SEP, NOV 2023
UU RECORDS UUPS-ORD-76950
PROPOSED SITE PLAN
HRD-FRA-00-XX-DR-A-90-0200 REV C12 SITE PLAN
HRD-FRA-00-XX-DR-A-90-0207 REV C09 EXTERNAL WORKS SETTING OUT SHEET 1
HRD-FRA-00-XX-DR-A-90-0208 REV C11 EXTERNAL WORKS SETTING OUT SHEET 2
EXTERNAL SERVICES
HRD-HAN-ZZ-00-DR-M-50-03 C01 External Gas & Water Layout
DISCHARGE UNITS PROVIDED 26.03.21
POPUPS 3654-HRD-HAN-ZZ-00-DR-M-0610

RAINWATER HARVESTING/ STORAGE
HRD-ABE-ZZ-ZZ-DR-M-5032 REV P03 TANK LAYOUT
SIPHONIC DRAINAGE DETAILS
HRD-SAP-01-RL-DR-X-0001 REV C04 SIPHONIC ROOF PLAN
HRD-SAP-01-RL-DR-X-0002 REV C05 SHED E SIPHONIC ROOF PLAN
HRD-SAP-01-RL-DR-X-0003 REV C04 SIPHONIC UGD DETAILS
WASHDOWN FOUNDATIONS PLAN
HRD-CUR-04-FN-DR-S-16-0001 REV C03
SITE INVESTIGATIONS
HDR-CUR-00-XX-RP-GE-002-P01 HAMMERSTONE ROAD PHASE 2 SITE INVESTIGATION
HRD-CUR-00-XX-RP-G-004-C01_HAMMERSTONE ROAD DEPOT TRIAL PITS
AS-BUILT INFORMATION
SKETCH MARK-UPS RECEIVED 04.09.25 FROM MORGAN SINDALL.

LEGEND

EXISTING SERVICES BASED ON CCTV SURVEY AUG 2020

- SW-B2 SW-B2 EXISTING SURFACE WATER PIPE
- SW-B2 SW-B2 EXISTING COMBINED WATER PIPE
- SW-B2 SW-B2 EXISTING UNSURVEYED BUILDING DRAINAGE (ASSUMED ROUTE SHOWN)

UNITED UTILITIES RECORDS UUPS-ORD-76950
ALL UU ASSETS ARE SHOWN INDICATIVELY

- UU FOUL WATER SEWER
- UU SURFACE WATER SEWER
- UU COMBINED WATER SEWER WATERCOURSE
- 8M EASEMENT BASED ON SEWER FOR ADOPTION 6TH EDITION

PROPOSED DRAINAGE

- PROPOSED FOUL WATER DRAIN
- PROPOSED RISING MAIN FROM RH TANK
- PROPOSED SURFACE WATER DRAIN
- PROPOSED SURFACE WATER FOR WASHDOWN
- PROPOSED SURFACE WATER FROM SIPHON BY SAPOFLOW
- PROPOSED SURFACE WATER GRAVITY DRAINAGE FROM SIPHON
- PROPOSED SURFACE WATER BY STORMSAVER
- LINEAR DRAINAGE CHANNEL GATIC CASTSLOT TREADSAFE D400
- LINEAR DRAINAGE CHANNEL MEADRAIN ENS 3000 D400
- FOUL WATER DOWN PIPE
- FLOOR GULLY
- SIPHON RAIN WATER PIPE
- ACCESS BOX
- OUTLET BOX
- CATCHPIT
- FLOW CONTROL CHAMBER
- PROPOSED ATTENUATION TANK
- PETROL INTERCEPTOR OR SIMILAR
- PROPOSED SERVICES
- EXISTING BUILDING FOOTPRINT

FC01	FINAL CONSTRUCTION ISSUE	08.09.25	JC	ATL
C09	UPDATED IN LINE WITH DISCUSSIONS/ AS CONSTRUCTED TANK INFO	03.03.25	JC	ATL
C08	WASHDOWN DRAINAGE AMENDED	10.02.25	JC	ATL
C07	LINEAR DRAINAGE CHANNEL AMENDED	22.10.24	JC	ATL
C06	UPDATED IN LINE WITH DISCUSSIONS	21.10.24	JC	ATL
C05	STAGE 5 ISSUE	23.09.24	JC	ATL
P08	UPDATED IN LINE WITH COMMENTS	13.02.24	ATL	MW
P07	UPDATED FOR NEW TENDER	02.02.24	ATL	MW
C04	CAR PARK DRAINAGE REMOVED	20.04.23	ATL	MW
C03	DRAINAGE FLOWS, COVER LEVELS AND, WASHDOWN OUTFALL ARRANGEMENT AMENDED	25.11.22	ATL	MW
C02	EX1 TO BE REBUILT, LANDSCAPE PLAN AND SERVICES UPDATED	24.10.22	MW	MW
C01	ISSUED FOR CONSTRUCTION	21.09.22	ATL	MW

Rev:	Description:	Date:	By:	Chkd:

Curtins
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FINAL CONSTRUCTION

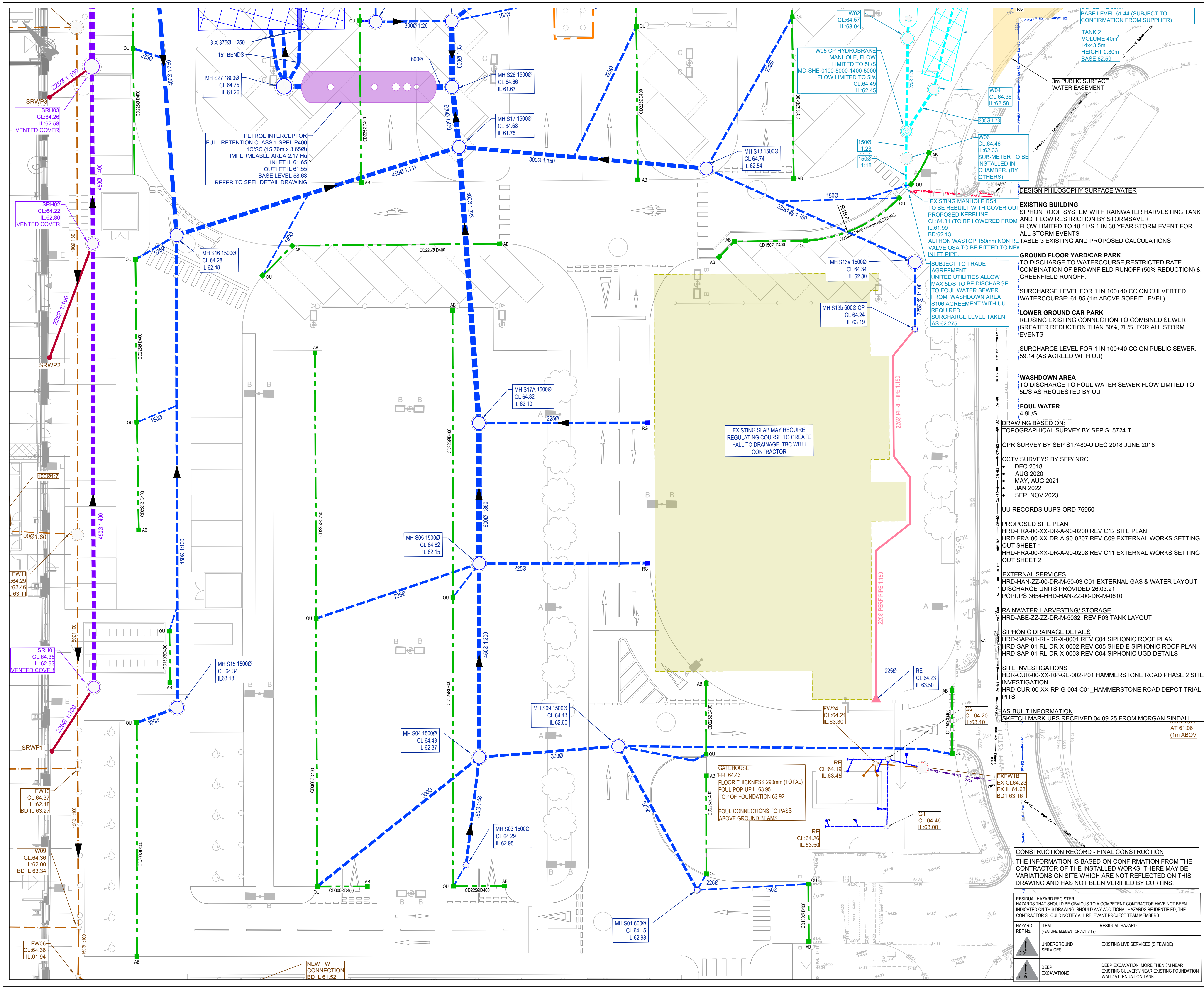
Project: **HAMMERSTONE ROAD**

Dwg Title: **PROPOSED DRAINAGE 1:200 LAYOUT SHEET 1**

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
068065	A1	14.04.21	ATL	ATL	MW

Scale: 1:200

Project Code:	Originator:	Zone:	Level:	Type:	Discipline:	Category/Number:	Rev:
HRD	- CUR	- XX	- 00	- DR	- C	- 92-504	FC01



LEGEND

SITE BOUNDARY BASED ON
HRD-FRA-00-XX-DR-A-90-0200

EXISTING SERVICES BASED ON CCTV SURVEY AUG 2020

— SW-B2 — SW-B2 — EXISTING SURFACE WATER PIPE
— — — — — EXISTING COMBINED WATER PIPE
— — — — — EXISTING UNSURVEYED BUILDING DRAINAGE (ASSUMED ROUTE SHOWN)

UNITED UTILITIES RECORDS UUPS-ORD-76950
ALL UU ASSETS ARE SHOWN INDICATIVELY

— — — — — UU FOUL WATER SEWER
— — — — — UU SURFACE WATER SEWER
— — — — — UU COMBINED WATER SEWER WATERCOURSE
— — — — — 8M EASEMENT BASED ON SEWER FOR ADOPTION 6TH EDITION

PROPOSED DRAINAGE

— — — — — PROPOSED FOUL WATER DRAIN
— — — — — PROPOSED RISING MAIN FROM RH TANK
— — — — — PROPOSED SURFACE WATER DRAIN
— — — — — PROPOSED SURFACE WATER FOR WASHDOWN
— — — — — PROPOSED SURFACE WATER FROM SIPHON BY SAPOFLOW
— — — — — PROPOSED SURFACE WATER GRAVITY DRAINAGE FROM SIPHON
— — — — — PROPOSED SURFACE WATER BY STORMSAVER

DP Foul Water Down Pipe
FG Floor Gully
SRWP Siphon Rain Water Pipe
AB Access Box
OU Outlet Box

CP Catchpit
FC Flow Control Chamber

Proposed Attenuation Tank
Petrol Interceptor or Similar
Proposed Services
Existing Building Footprint

DESIGN PHILOSOPHY SURFACE WATER

EXISTING BUILDING
SIPHON ROOF SYSTEM WITH RAINWATER HARVESTING TANK AND FLOW RESTRICTION BY STORMSAVER FLOW LIMITED TO 18.1L/S 1 IN 30 YEAR STORM EVENT FOR ALL STORM EVENTS
TABLE 3 EXISTING AND PROPOSED CALCULATIONS

GROUND FLOOR YARD/CAR PARK
TO DISCHARGE TO WATERCOURSE RESTRICTED RATE COMBINATION OF BROWNFIELD RUNOFF (50% REDUCTION) & GREENFIELD RUNOFF.

SURCHARGE LEVEL FOR 1 IN 100+40 CC ON CULVERTED WATERCOURSE: 61.85 (1m ABOVE SOFFIT LEVEL)

LOWER GROUND CAR PARK
REUSING EXISTING CONNECTION TO COMBINED SEWER GREATER REDUCTION THAN 50%, 7L/S FOR ALL STORM EVENTS

SURCHARGE LEVEL FOR 1 IN 100+40 CC ON PUBLIC SEWER: 59.14 (AS AGREED WITH UU)

WASHDOWN AREA
TO DISCHARGE TO FOUL WATER SEWER FLOW LIMITED TO 5L/S AS REQUESTED BY UU

FOUL WATER
4.9L/S

DRAWING BASED ON:
TOPOGRAPHICAL SURVEY BY SEP S15724-T
GPR SURVEY BY SEP S17480-U DEC 2018 JUNE 2018
CCTV SURVEYS BY SEP/ NRC:
• DEC 2018
• AUG 2020
• MAY, AUG 2021
• JAN 2022
• SEP, NOV 2023
UU RECORDS UUPS-ORD-76950

PROPOSED SITE PLAN
HRD-FRA-00-XX-DR-A-90-0200 REV C12 SITE PLAN
HRD-FRA-00-XX-DR-A-90-0207 REV C09 EXTERNAL WORKS SETTING OUT SHEET 1
HRD-FRA-00-XX-DR-A-90-0208 REV C11 EXTERNAL WORKS SETTING OUT SHEET 2

EXTERNAL SERVICES
HRD-HAN-ZZ-00-DR-M-50-03 C01 EXTERNAL GAS & WATER LAYOUT
DISCHARGE UNITS PROVIDED 26.03.21
POPUPS 3654-HRD-HAN-ZZ-00-DR-M-0610

RAINWATER HARVESTING/ STORAGE
HRD-ABE-ZZ-ZZ-DR-M-5032 REV P03 TANK LAYOUT

SIPHONIC DRAINAGE DETAILS
HRD-SAP-01-RL-DR-X-0001 REV C04 SIPHONIC ROOF PLAN
HRD-SAP-01-RL-DR-X-0002 REV C05 SHED E SIPHONIC ROOF PLAN
HRD-SAP-01-RL-DR-X-0003 REV C04 SIPHONIC UGD DETAILS

SITE INVESTIGATIONS
HDR-CUR-00-XX-RP-GE-002-P01 HAMMERSTONE ROAD PHASE 2 SITE INVESTIGATION
HRD-CUR-00-XX-RP-G-004-C01 HAMMERSTONE ROAD DEPOT TRIAL PITS

AS-BUILT INFORMATION
SKETCH MARK-UPS RECEIVED 04.09.25 FROM MORGAN SINDALL

FC01	FINAL CONSTRUCTION ISSUE	08.09.25	JC	ATL
C05	UPDATED IN LINE WITH DISCUSSIONS/ AS CONSTRUCTED TANK INFO	03.03.25	JC	ATL
C04	WASHDOWN DRAINAGE AMENDED	10.02.25	JC	ATL
C03	LINEAR DRAINAGE CHANNEL AMENDED	22.10.24	JC	ATL
C02	UPDATED IN LINE WITH DISCUSSIONS	21.10.24	ATL	ATL
C01	STAGE 5 ISSUE	23.09.24	JC	ATL
P03	UPDATED IN LINE WITH UPDATED SITE LAYOUT	03.04.24	KS	ATL
P02	UPDATED IN LINE WITH COMMENTS	13.02.24	ATL	MW
P01	ISSUED FOR NEW TENDER	29.01.24	ATL	MW

Rev:	Description:	Date:	By:	Chkd:

Curtins

Merchant Exchange, 17-19 Whitworth Street West, Manchester, M1 5WG
0161 238 2384
manchester@curtins.com
www.curtins.com

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Status: **FINAL CONSTRUCTION**

Project: **HAMMERSTONE ROAD**

Dig Title: **PROPOSED DRAINAGE
1:200 LAYOUT SHEET 2**

Project No:	Size:	Date:	Drawn By:	Designed By:	Checked By:
068065	A1	29.01.24	ATL	ATL	MW
Scale: 1:200					
Project Code:	Originator:	Zone:	Level:	Type:	Discipline:
HRD - CUR - XX - 00 - DR - C - 92-508	FC01				

HAZARD REF No.		ITEM (FEATURE, ELEMENT OR ACTIVITY)	RESIDUAL HAZARD
3.01		UNDERGROUND SERVICES	EXISTING LIVE SERVICES (SITEWIDE)
5.05		DEEP EXCAVATIONS	DEEP EXCAVATION MORE THAN 3M NEAR EXISTING CULVERT/ NEAR EXISTING FOUNDATION WALL/ ATTENUATION TANK

Time & Project 068065 - Hammerstone Road Depot/MS 4 Production/MS 4 Drawings/MS 4 Notes & Drawings/MS 4

Appendix B

Flood Defence Consent – Reference NW_South_2016_528

S106 Approval – Reference 02926533

WATER INDUSTRY ACT 1991**CONSENT TO THE DISCHARGE OF TRADE EFFLUENT**

Whereas **Manchester City Council**

(hereinafter called "the Trader") whose Head Office or Registered Office is at

Corporate Estates Team 8th Floor, Town Hall Extension PO Box 532 Manchester M60 2LA

Is the **owner/occupier** of the trade premises at:

**Hammerstone Road Depot
Hammerstone Road
Gorton
Manchester
M18 8EQ**

and by the Duly made application dated **01 June 2023**

Have applied to UNITED UTILITIES WATER LIMITED (hereinafter called "the Company") for consent to discharge trade effluent from the said trade premises into the sewers.

Under the provisions of the above mentioned Act the discharge of trade effluent in accordance with the said application form would not be lawful without the consent of the Company.

NOW THEREFORE in exercise of the powers conferred upon them by the above Act the Company HEREBY CONSENT to the discharge of trade effluent by the Trader from the said premises into their sewers SUBJECT TO THE FOLLOWING CONDITIONS:

**Nature of
discharge**

- 1a) Subject to the provisions of conditions 6,7,8 and 9 below the nature or composition of the trade effluent to be discharged under this Consent shall be solely as specified in the said application form and shall consist solely of waste water derived from **commercial and council vehicle washdown facility, for street cleaning vehicles, refuse collection vehicles and normal operational vehicles.**
- 1b) The trader shall give to the Company prior written notice of any change in the process or the process materials or any other circumstances likely to alter the constituents of the trade effluent as set out in condition 1(a). In such circumstances, no substance of which the Company has not had previous notice, may be discharged unless and until the Company has agreed to accept the substance at a limit imposed by the Company which shall then be deemed to be incorporated in this Consent by agreement and shall not prejudice the right of the Company to serve a Direction earlier than two years from the date of such incorporation.

The Trader shall also give not less than seven days written notice to the Company of any change in the name of the occupier or owner.

- | | |
|--|--|
| Sewer affected | 2. The sewer into which the trade effluent may be discharged and the point of discharge is the foul sewer situate at Hammerstone Road (Manhole Ref: 2801) . |
| Connections | 3. No connections shall be made to the said sewer without the prior approval of the Company and all such connections shall be constructed and maintained to the satisfaction of the Company at the expense of the Trader. |
| Maximum volume of discharge | 4. The maximum amount of the trade effluent discharged in any one day of twenty four hours shall not exceed 30 m³ without prior written consent of the Company. |
| Maximum rate of discharge | 5. The highest rate at which the trade effluent may be discharged shall not exceed 4 litre/sec . |
| Matters to be eliminated prior to discharge to sewers | <p>6. The following matters shall be eliminated from the trade effluent before it is discharged into the sewers of the Company:</p> <ul style="list-style-type: none"> a) petroleum spirit; b) calcium carbide; c) carbon disulphide; d) except as provided in paragraph 7 hereof, the prescribed substances listed in Schedule 1 to The Trade Effluents (Prescribed Processes and Substances) Regulations 1989, as amended from time to time, insofar as they are in concentration greater than the background concentration (as defined in the said Regulations); e) where the trade effluent derives from a prescribed process mentioned in Schedule 2 to the said Regulations, and except as provided in paragraph 7 hereof, asbestos (as defined in the said Regulations) and chloroform in concentration greater than the background concentration (as defined in the said Regulations); f) organo-halogen compounds including pesticide residues and degreasing agents; g) any substances which either alone or in combination with each other or with any other matter lawfully present in the said sewers would be likely to; <ul style="list-style-type: none"> i) cause a nuisance or produce flammable, harmful or toxic vapours either in the sewers or at the sewage works of the Company; ii) injure the sewers or interfere with the free flow of their contents or affect prejudicially the treatment and disposal of their contents or have injurious effects on the sewage treatment works to which it is conveyed or upon any treatment plant there; iii) be dangerous to or cause injury to any person working in the sewers or at the sewage treatment works; |

- iv) affect prejudicially any watercourse, estuary or coastal water into which the treated effluent will eventually be discharged.

Matters to be limited prior to discharge to sewer

7. The trade effluent shall not contain
- a) Arsenic as As in excess of **50 ug/l**
 - b) Chloroform in excess of **100 ug/l**
 - c) Cyanides and cyanogen compounds which produce hydrogen cyanide on acidification in excess of **1 mg/l**
 - d) Separable grease and oil in excess of **100mg/l**
 - e) Sulphates as SO₄ in excess of **1,000 mg/l**
 - f) Sulphides, hydrosulphides, polysulphides and substances producing hydrogen sulphide on acidification in excess of **1 mg/l**
 - g) Total suspended solids at pH 7.0 and dried at 110° C in excess of **1,000 mg/l**
 - h) Toxic metals in excess of **10,000 ug/l** either individually or in total ie Antimony, Beryllium, Chromium, Copper, Lead, Nickel, Selenium, Silver, Tin, Vanadium, Zinc;

Temperature

8. No trade effluent shall be discharged which has a temperature higher than **43.3°C (110°F)**.

pH value

9. No trade effluent shall be discharged having a pH of less than **6** or greater than **10**

Inspection Chamber

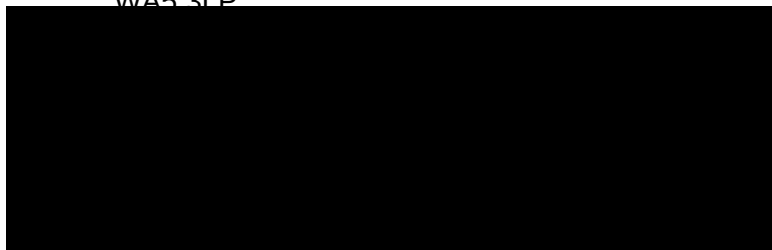
10. a) An inspection chamber or manhole shall be provided and maintained by the Trader in a suitable position in connection with each pipe through which the trade effluent is discharged and shall be so constructed and maintained as to enable a person readily to obtain at any time samples of the trade effluent so discharged, to the approval of the Company.
- b) Suitable apparatus for measuring and automatically recording the volume and composition of trade effluent discharged shall be provided and maintained in working order by the Trader in connection with every such pipe, unless otherwise exempted in writing by the Company.
- c) If the measuring and recording apparatus as aforesaid ceases to function satisfactorily, then the Company shall have the right to make estimates of the volume and composition of the trade effluent until such time as the said apparatus is again operating to the satisfaction of the Company.

- d) Records shall be kept by the Trader of the volume, rate of discharge, nature and composition of the trade effluent discharged to the sewer, together with any records required to be kept by the Trader under the provisions of any Notice of Determination issued by the Secretary of State under Sections 120 and 132 of the Water Industry Act 1991. Such records shall be kept available for inspection at all reasonable times by an authorised officer of the Company and copies shall be sent to the Company on demand.
- e) The foregoing provision of this condition shall be deemed to be complied with if other methods of sampling the trade effluent, determining its nature and composition, and measuring and recording the discharge are agreed and confirmed in writing by the Company.

Dated 01 August 2023

Issuing Office Wastewater Services
 Lingley Mere Business Park
 Lingley Green Avenue
 Great Sankey
 Warrington
 WA5 3LP

Signed



Your attention is drawn to Section 122 of the Water Industry Act 1991 which provides that any person aggrieved by any conditions attached to this Consent may appeal to the Director General of Water Services.

RE: Hammerstone Road - Secondary Water Meter

From Philip Godfrey <pgodfrey@abeng.co.uk>

Date Mon 2024-12-23 11:08

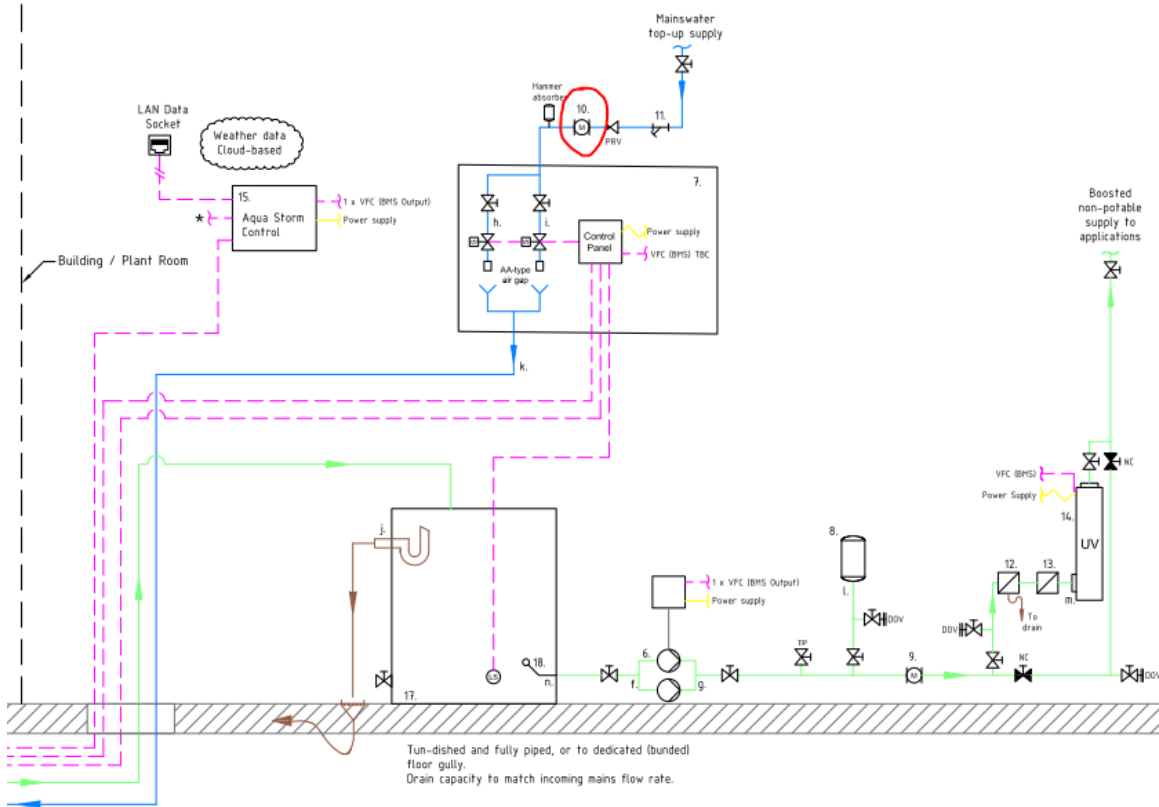
To Webb, Dave (MS) <Dave.Webb@morgansindall.com>; Craig Sanders <csanders@abeng.co.uk>

Cc Boardman, John (MSC) <John.Boardman@morgansindall.com>; Ryan, James (MS) <James.Ryan@morgansindall.com>

Hi Dave.

Picking up on some old emails, water to the RW is already dub metered, so no need for an extra one.

For the BMS connection, I will look into this as I don't know how or if this is being connected to the BMS. I need to discuss with Craig what we agreed on for our costs. @Craig Sanders one to discuss.



Cheers

Philip Godfrey

Technical Director

t:0151 228 4661 m:07825 517864 e:pgodfrey@abeng.co.uk

Holly Terrace | 9 - 17 Derby Lane | Liverpool | L13 6QA

abengineering



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www.abeng.co.uk



Certificate No.448762024



Certificate No.450752024

From: Webb, Dave (MS) <Dave.Webb@morgansindall.com>

Sent: 07 November 2024 14:44

To: Anna Lucas <Anna.Lucas@manchester.gov.uk>; Philip Godfrey <pgodfrey@abeng.co.uk>

Cc: Boardman, John (MSC) <John.Boardman@morgansindall.com>; Ryan, James (MS) <James.Ryan@morgansindall.com>
Subject: RE: Hammerstone Road - Secondary Water Meter

Hi Anna,

The below is clear as day now. We will not approach UU with regards to installing a pulsed meter. Instead, we will install a secondary pulsed water meter within our site boundary that monitors the washdown area and is linked to site BMS.

Hi Phil,

I know we have discussed this topic, can you please ensure that we show/install a secondary pulsed water meter on the water supply to the washdown area and monitored by the BMS?

Cheers.

[Dave Webb](#)

Building Services Manager

Dave.Webb@morgansindall.com | 07812 487385

6th Floor, Anchorage 2, Salford Quays, Salford Quays, M50 3YW | 0161 874 1000

**MORGAN
SINDALL**
CONSTRUCTION

morgansindallconstruction.com



From: Anna Lucas <Anna.Lucas@manchester.gov.uk>
Sent: Wednesday, November 6, 2024 4:17 PM
To: Webb, Dave (MS) <Dave.Webb@morgansindall.com>
Subject: FW: Hammerstone Road - Secondary Water Meter

Hi Dave

Please see below response from our energy officer regarding the LOA. Are you happy to proceed with the amended wording in blue?

Kind regards
Anna

From: Lindsay Oldham <lindsay.oldham@manchester.gov.uk>
Sent: 06 November 2024 16:14
To: Anna Lucas <Anna.Lucas@manchester.gov.uk>
Cc: Emma Rubezevicius <emma.rubezevicius@manchester.gov.uk>; Joel Anderson <janderson@wave-utilities.co.uk>; John Burke <john.burke@manchester.gov.uk>
Subject: RE: Hammerstone Road - Secondary Water Meter

Hi Anna

I am happy to sign a LOA for **your** description of works, which is correct, i.e. to install a secondary pulsed meter downstream of the existing water meter (within the site's boundary). However, Morgan Sindall's letter says the existing water meter is to be replaced with a pulsed meter to link to the BMS (copied and pasted in blue below)

As previously explained and verified by the retailer, UU will only permit their own certified data loggers to be installed on their meters, by their contractors and to date, have not been willing to allow a connection to a site BMS system. The content of Mogan Sindall's draft LOA does not seem to reflect this fundamental condition.

Ameon Utilities need to install a secondary pulsed meter, downstream of the UU revenue meter. That meter should be in its own chamber or cabinet, on customer's side and as it is effectively a sub-meter, there should be no requirement for UU permissions.

Dear Sir / Madam,

I hereby authorise Ameon Utilities to work on the behalf of Manchester City Council (MCC) to apply to UU and request for the existing water meter SPID 3002532363W15 to be exchanged for a new BMS compatible water meter.

Your comments please.

Kind regards Lindsay

Lindsay Oldham
Senior Technical Officer (Water)
Energy Management Unit
Corporate Procurement
Corporate Services Department
Manchester City Council
Town Hall Extension
Level 5
Manchester
M60 2LA

External Tel: 0161-234-3632
Internal Tel: 801-33632
Mobile 07788 978712
e-mail: lindsay.oldham@manchester.gov.uk

From: Anna Lucas <Anna.Lucas@manchester.gov.uk>
Sent: Wednesday, November 6, 2024 10:26 AM
To: Lindsay Oldham <lindsay.oldham@manchester.gov.uk>
Cc: Emma Rubezevicius <emma.rubezevicius@manchester.gov.uk>
Subject: Hammerstone Road - Secondary Water Meter

Hi Lindsay

Hope you're good.

I'm getting in touch regarding the proposed pulsed water meter at Hammerstone – we were emailing about this a little while ago. The Contractor, Morgan Sindall, would like to install a secondary pulsed meter downstream of the existing water meter (within the site's boundary). This is so that the amount of water used for the vehicle washdown area can be monitored on the building's BMS system. They are not doing any work to the existing water meter.

To progress this, Morgan Sindall need a Letter of Authority from the Council, so that their subcontractor, Ameon, can get the appropriate permissions from UU to progress the works. Is this something you can provide?

If so, MS has prepared the letter for the Council to sign – please see attached.

Please let me know if you have any questions.

Kind regards
Anna

Anna Lucas

Senior Project Manager
Major Projects, Capital Programmes, Corporate Core Directive

e. anna.lucas@manchester.gov.uk
m. 07747 093 921

Working week: Monday - Thursday

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Emails are sent on behalf of the relevant Morgan Sindall company below. Each company is registered in England and Wales each with its registered office at Kent House, 14-17 Market Place, London W1W 8AJ and number as shown: Morgan Sindall Group plc (0521970), Morgan Sindall Construction & Infrastructure Ltd. (04273754), Morgan Sindall Engineering Solutions Limited (04969901), Morgan Sindall Property Services Limited (4515196).

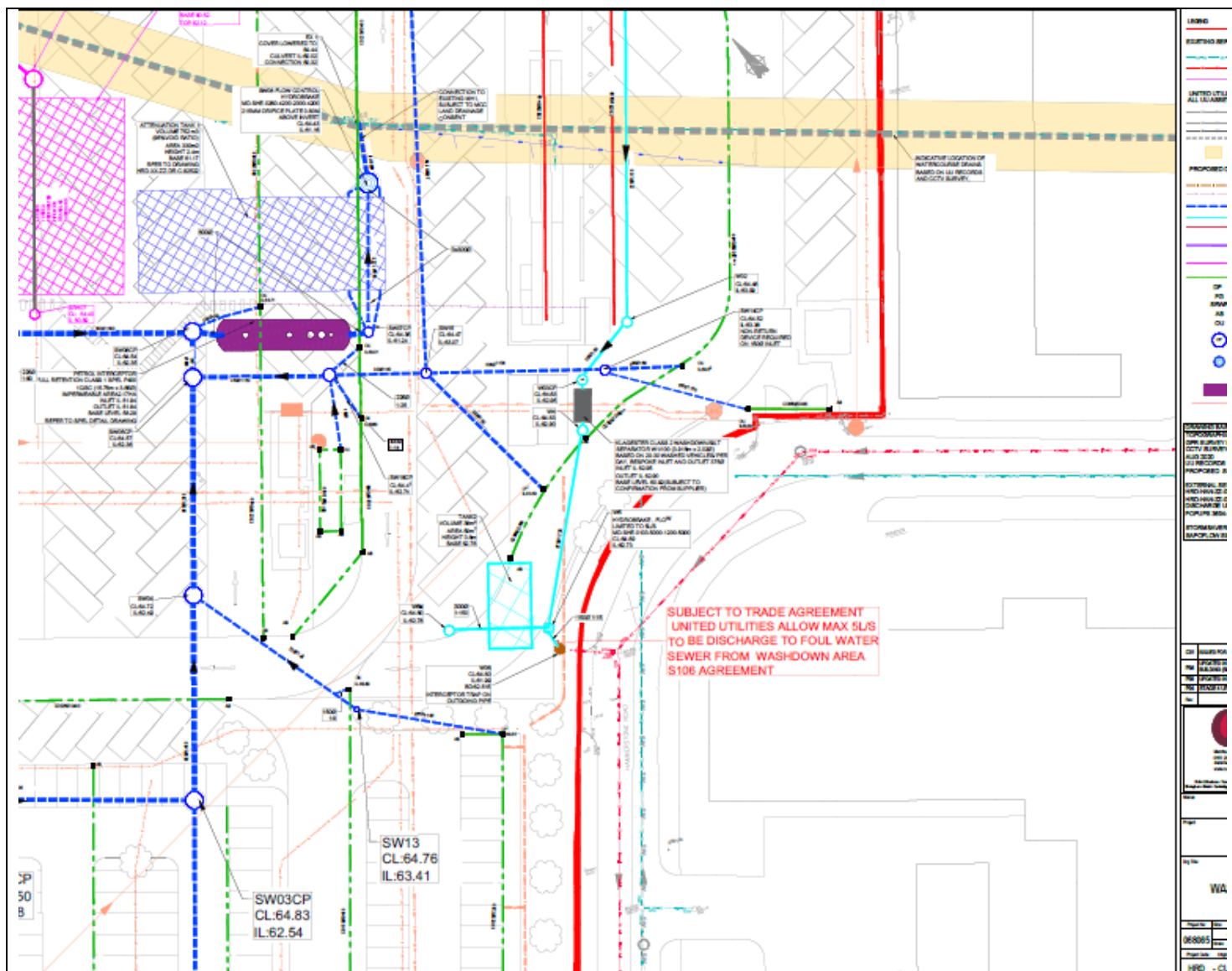
For further information on Morgan Sindall Group plc and its subsidiaries visit our website at www.morgansindall.com

+++++

S106 Part 1 'Application to connect to a public sewer' Approval Notice



United Utilities Reference Number:		02926533			
Applicant details					
Applicant name	Andy Losty				
Applicant address (including postcode)	Curtins Consulting Merchant Exchange 17-19 Whitworth Street West Manchester M1 5WG				
Applicant email	andy.losty@curtins.com				
Site details: The site / property which is proposed for connection to the public sewer					
Site address (including postcode)	Hammerstone Road Depot Manchester M18 8EQ				
APPROVED					
Your application for connection to the public sewer has been approved, to be made via a new connection:					
To a private drain	☒	You may appoint your contractor and advise your appointed building control body (who should inspect the work). United Utilities should be advised when this work is complete.			
Direct to the public sewer	☐	Further action required You may now appoint an appropriately qualified contractor. Your appointed contractor is responsible for obtaining authorisation to work on a public sewer. (The S106 Part 2 application form ' Request for permission to work on a public sewer ' is available on our website; unitedutilities.com).			
Mode of connection approved	Other - please see comments box				
Sewer connection type	Foul	☒	Surface water	☐	Combined
<p>This approval is valid for 12 months from the date below.</p> <p>This approval does not grant access to third party land, permission should be sought if required between applicant and land owner If the new connection renders access unsafe or is otherwise detrimental to the manhole or sewer, a new/upgraded manhole will be requested.</p>					
Comments					
<p>Consent To Discharge of Trade Effluent form received with the application - which indicates The sewer in which the trade effluent may be discharged and the point of discharge is the foul sewer situated at Hammerstone Road (Manhole Ref 2801)</p> <p>Approval is for the Washdown area – which has been granted consent from Trade Effluent Team.</p> <p>Approval granted for the foul connection utilising the existing private drainage which outfalls to the 375mm foul sewer in Hammerstone Road. (MH 2801)</p> <p>For low-lying sites, (where the ground level of the site or the level of a basement is below the ground level at the point where the drainage connects to the public sewer), care should be taken to ensure that the property is not at increased risk of flooding. If these circumstances exist it could affect the detailed design of your site and result in the need to incorporate appropriate mitigating measures in your drainage scheme.</p> <p>Please note, if you are proposing to connect to an existing, unchartered drain or sewer then it is the developer's responsibility to confirm that it communicates with the Public Sewer. Connections may be made to private lateral drains or to existing neighbouring drain. A part 1 approval does not give permission to access third party land. The applicant must seek permission from the relevant land owner.</p>					



Developer Services Inspector	Lynne Berry
Contact number	07881 034558
Date	13/03/2024

Appendix C

Drainage Components Manufacturer's Information

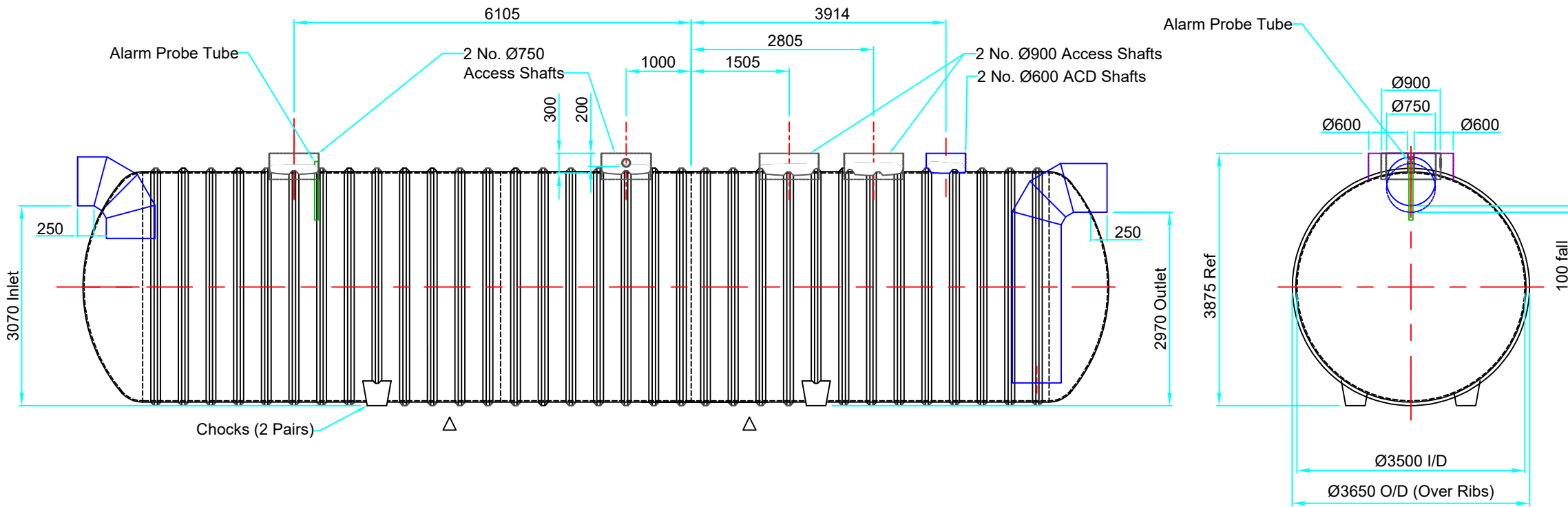
SERIAL No. 32749

Date

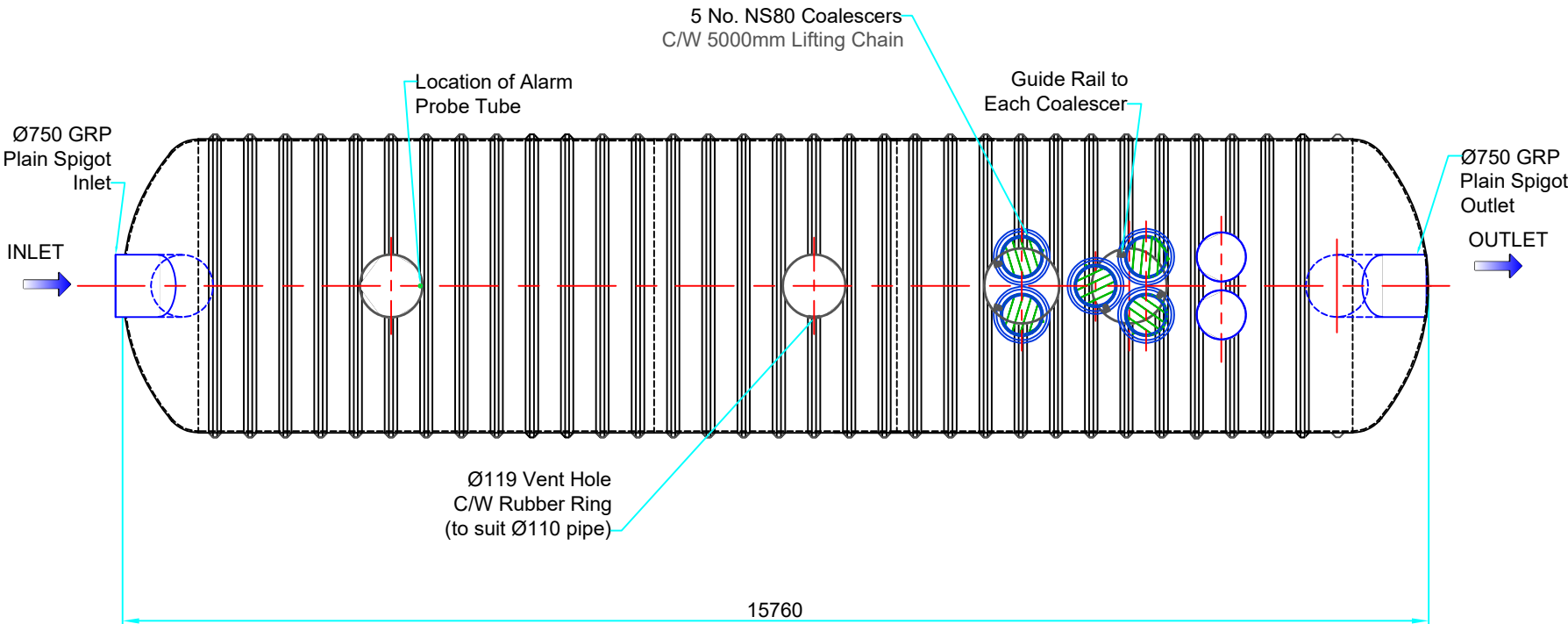
Approved By (Print)

Signed

CUSTOMER APPROVAL SIGN OFF



ORIENTATION: A
INLET: Ø750 GRP Plain Spigot
OUTLET: Ø750 GRP Plain Spigot



NOTE:-
This Tank is to be supplied with:
2 No. Ø600 Access Shaft Extensions - 2000mm High
2 No. Ø750 Access Shaft Extensions - 2000mm High
1 No. Ø900 Access Shaft Extension - 2000mm High
C/W 2 No. Coalescer Guide Rail Top Brackets,
1No. Chain Hook
1 No. Ø900 Access Shaft Extension - 2000mm High
C/W 3 No. Coalescer Guide Rail Top Brackets,
1No. Chain Hook
5 No. Ø25 Guide Rail Extension 2000mm Long
5 No. Lifting Chains 5000mm Long

Key to Symbols: △ Lifting Point

○ Hold-down strap rib locations where mechanical anchoring is required

△ Manufacturing Joint

○ BoQ's reference no.

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SPEL PRODUCTS

DIMENSIONS ARE SUBJECT TO DIMENSIONAL TOLERANCES. If critical, check physically prior to installation

Water table & Burial Depth:
The customer must check tank specification is compatible with ground water table level (in winter) and burial depth. If in doubt refer to SPEL Data Manual Section 7 or contact SPEL Products Sales or Technical Department

Title: SPEL 500 Series Puraceptor Model P400/1CSC Orientation (A)
Contract: Travis Perkins (Manchester) NWCH Hammerstone, Gorton, Manchester, M18 8EQ
Order No.: T00061553

Gross Capacity 144,500 Ltrs
Tank Specification STANDARD
Laminate Specification GP

All sizes in mm
If in doubt ASK!

SPEL
Life in Water
Lancaster Road, Shrewsbury
Shropshire, SY1 3NQ, England
Telephone: +44 (0)1743 445200
www.spelproducts.co.uk

Drawn RR
Checked SRB
Date 22.08.24
Scale 1:80 Sheet A3

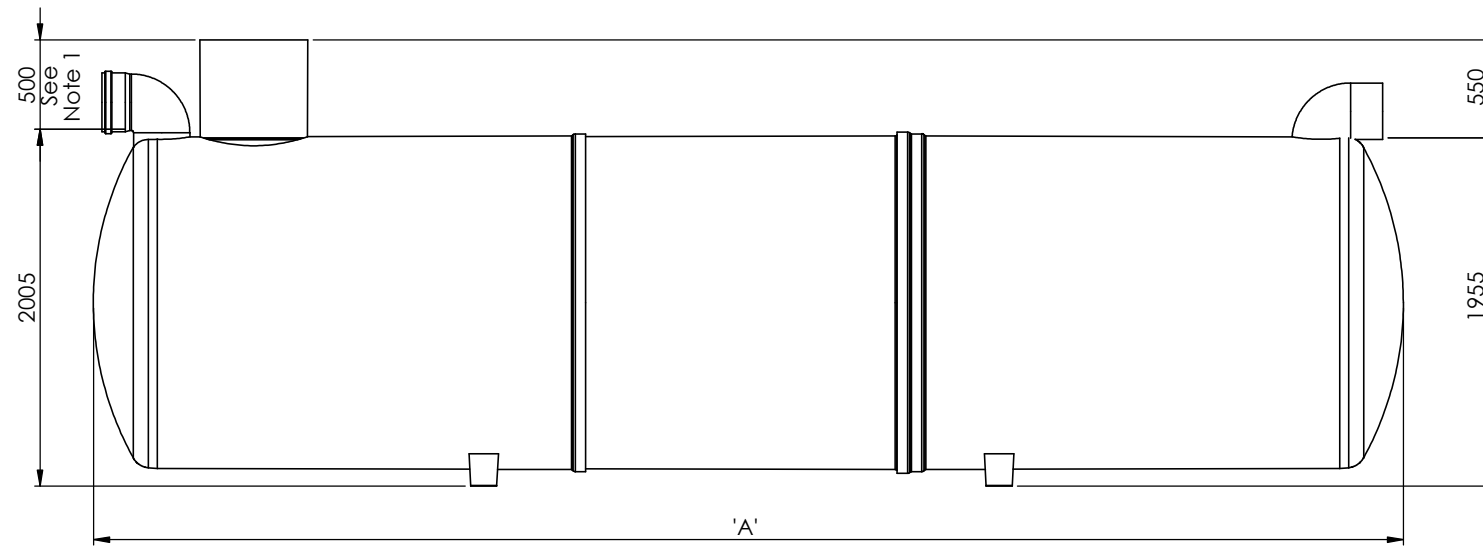
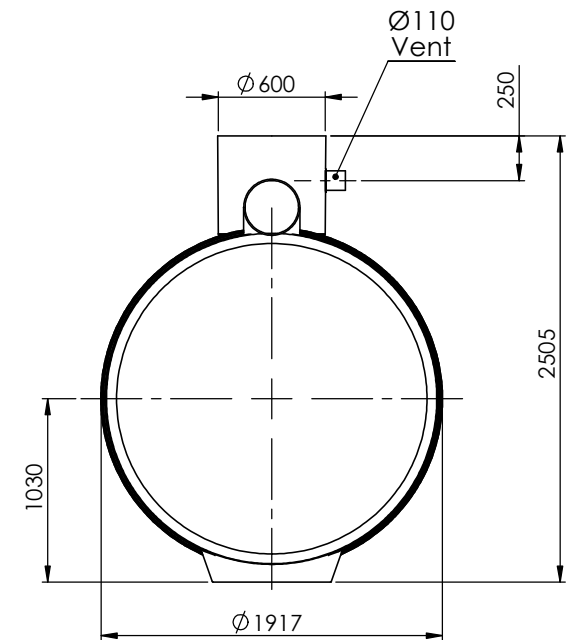
TANK SERIAL No. 32749
INTERNAL ORDER No. 23142/007

Revision A

RR

BY:

1. Units Can Be Provided With Extension Shafts In 0.5m Increments.
2. Standard Inlet/ Outlet Pipes Are PVCu Underground Drainage To BS5481, Other Pipe Sizes And Types Available.
3. It Is Essential That This Drawing Is Read In Conjunction With The Manual (Supplied With Unit) Giving Installation Details. This Drawing Should Be Used For Dimensional Information Only.



Unit	Working Capacity	DIM 'A'	DIM 'B'	Inlet/ Outlet STD. Size	Approx Weight (kg)		Fall Across The Unit
					Empty	Full	
W1/ 150	15000	5780	900	300	620	15620	50
W1/ 190	19000	7355		300	750	19750	50

Please Check with Kingspan Environmental For The Latest Issue Of This Drawing					Material : Various		Tolerance (unless stated) : n/a		Drawing : DS0855P <div>Page 1 of 1</div>			
Issue	Date	Drawn by	Approved by	Description	Finish : n/a		Thickness : n/a					
02	30/10/14	L.Steward		CC1179 - Re-drawn In Solidworks/ Change To New Ø1.8 Cases	Weight : n/a		Surface Area : n/a m²		W1/150 - W1/190 Washdown & Silt Separators. (1-Stage)			
					Modelled By :							
All Dimensions In mm			Scale: Do Not Scale		 Third Angle Projection		Kingspan Environmental reserve the right to alter the details of this drawing without prior notice. This drawing is copyright and may not be reproduced or used without the written permission of Kingspan Environmental				 Kingspan Environmental	
R:\Drawing Data\02 - Sales Drawings\DS\DS - 08\DS0855P W1 150 - W1 190 Washdown & Silt Separator (1 Stage)												