

LAING O'ROURKE

SUSTAINABLE DRAINAGE SCHEME VERIFICATION REPORT

Abraham Moss Library & Leisure Centre





Abraham Moss Library & Leisure Centre

SUSTAINABLE DRAINAGE SCHEME VERIFICATION REPORT

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1.1.1 Groundworks and earthworks systems

System / Package Details	
Installer	EXPANDED STRUCTURES LTD
Work Package No	WP2100

1.1.1.1 System Description

An underground drainage system has been installed to deal with the waste water, pool discharge and surface water discharge needs for the facility.

Drainage and service ducting has been installed as per Engineers details.

Drainage includes manholes, gullies, internal linear drainage and gullies, external attenuation tanks with flow control units and petrol interceptor.

Ducting includes provision for power and data linked through a network of pits and ducts.

1.1.1.2 Equipment & Material Schedules

Link	Reference	Description	File Type	Company
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1.1.1.2.1 Generic Building

Classification: Pr_00_BLDG Generic Building

Data		
Manufactured By	Type Description	Model
ACO	ACO channels	MD system
BLUCHER UK LTD	Internal drainage (channels & Gullies)	Blucher gullies
GREENBLUE URBAN	Tree pits	GB System
KINGSPAN LIMITED	Petrol interceptor	NBS006
POLYPIPE CIVILS	Ducting	Rigiduct
POLYPIPE CIVILS	Underground drainage	Rigidrain, Polysewer
SCOTT PARNELL	Non return valve	WAPRO
SPEL PRODUCTS	Backwash tank	Tankstore
TUBOSIDER UK LTD	Attenuation tank	Twinstore

Spares						
Equipment	Description	Manufacturer	Part No	Size	Quantity	Notes
All equipment	N/A	N/A	N/A	N/A	N/A	N/A



COSHH	
Equipment	Value
All equipment	None identified

Disposal	
Equipment	Value
All equipment	None identified

Residual Risk	
Equipment	Value
All equipment	None identified

Equipment	Ref	Desc	Type	Company	Suitability	Status
ACO channels, MD system	1st May 2022	Drainage Channels	Catalogue	TUBOSIDER UK LTD	CR	---
Attenuation tank, Twinstore	None	Stormwater Attenuation Tanks	Data Sheet	TUBOSIDER UK LTD	CR	---
Backwash tank, Tankstore	06.20	Underground Tanks	Installation Manual	SPEL PRODUCTS	CR	---
Ducting, Rigiduct	MAR 2021	Chamber System	Data Sheet	POLYPIPE CIVILS	CR	---
Internal drainage (channels & Gullies), Blucher gullies	None	Filter Basket	Data Sheet	BLUCHER UK LTD	CR	---
Non return valve, WAPRO	None	Inline Check Valve	Data Sheet	WAPRO	CR	---
Petrol interceptor, NBS006	None	Surface Water And Rainwater Harvesting Products	Installation Manual	KINGSPAN LIMITED	CR	---
Tree pits, GB System	None	Pavement Support System	Data Sheet	GREENBLUE URBAN	CR	---



Underground drainage, Rigidrain, Polysewer	None	Gully Grates D400 Highway	Data Sheet	WREKIN	CR	---
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1.1.1.3 Operation

See Appendix A

1.1.1.4 Maintenance

1.1.1.4.1 Installer Recommended Maintenance

Maintenance		
Detail	Frequency	Notes
Inspections at 3 and 6 months should be made so as to be able to assess the volumes of silt and oil accumulated. An inspection and emptying programme can then be defined following the first 6 months site experience. We recommend a maximum inspection interval of 6 months. Inspections at 3 and 6 months should be made so as to be able to assess the volumes of silt and oil accumulated. An inspection and emptying programme can then be defined following the first 6 months site experience. We recommend a maximum inspection interval of 6 months.	3 Months	
Utility chambers, drainage chambers and channels should be visually inspected every 3 months. This should be recorded on a maintenance register	3 Months	
Drainage manholes, channels and pipes should be cleaned every 6 months. This should be recorded on a maintenance register. This frequency could be extended to 12 months if the first clean / inspection shows all components are clear and are being maintained / utilised correctly.	6 Months	

1.1.1.4.2 Manufacturers Recommended Maintenance

See Appendix A

Party Responsible for the management/ maintenance

For the external surface water drainage system, it is confirmed that Manchester City Council are responsible for the management and maintenance throughout the lifetime of the sustainable drainage scheme.

PROJECT NAME:	AMLC	LOCATION:		
PROJECT No:	N3939	West Elevation		DATE: 10/01/2022

DRAINAGE MANHOLE / TANK INFORMATION

Chamber ref:	Attenuation Tank 01 (S1-AC1 - S1-AC2)
Drawing & details ref:	As Attached

INSPECTIONS

	APPROVAL (INITIALS)		Comments
	Expanded	LOR	
Invert levels of inlets, outlet correct:	M.S	P.D	
Stub pipes correct:	M.S	P.D	
Formation acceptable: (visual inspection of formation)	M.S	P.D	
Segments correct (inc seals):	M.S	P.D	
Step irons/ladder correct: (spacing, verticality, horizontal and orientation)	M.S	P.D	
Making good around incoming connection completed (pipes & ducts):	M.S	P.D	
Finishing to chamber internals correct:	M.S	P.D	
Biscuit(s) correct (bedding & orientation):	M.S	P.D	
Temporary cover correct (if required):	M.S	P.D	
Permeant cover and frame correct:	M.S	P.D	
Other (give details):			

AS BUILT INFORMATION

S1-AC1	Easting (mE)	Northing (mN)
Theoretical:	384422.061	401702.918
Actual:	384422.067	401702.914
Difference (mm):	0.006	-0.004
S1-AC2	Easting (mE)	Northing (mN)
Theoretical:	384422.061	401702.918
Actual:	384422.065	401702.912
Difference (mm):	0.004	-0.006

	Theoretical	Actual	Diff (mm)
Tank IL (AC1)	62.6	62.61	0.01
Tank IL (AC2)	62.525	62.527	0.002

NCR Ref (for noncompliances) :

APPROVALS - CHAMBER ACCEPTABLE

Approved by: for Sub-Contractor	Signature:	<i>M Scott</i>	Name:	Mike Scott
Approved by: for Principal Contractor	Signature:	<i>P Davies</i>	Name:	Phil Davies

PROJECT NAME:	AMLC	LOCATION:		
PROJECT No:	N3939	South Elevation		DATE: 03/02/2022

DRAINAGE MANHOLE / TANK INFORMATION

Chamber ref:	Attenuation Tank 02 (S1-AC3 - S1-AC5)
Drawing & details ref:	As Attached

INSPECTIONS

	APPROVAL (INITIALS)		Comments
	Expanded	LOR	
Invert levels of inlets, outlet correct:	M.S	P.D	
Stub pipes correct:	M.S	P.D	
Formation acceptable: (visual inspection of formation)	M.S	P.D	
Segments correct (inc seals):	M.S	P.D	
Step irons/ladder correct: (spacing, verticality, horizontal and orientation)	M.S	P.D	
Making good around incoming connection completed (pipes & ducts):	M.S	P.D	
Finishing to chamber internals correct:	M.S	P.D	
Biscuit(s) correct (bedding & orientation):	M.S	P.D	
Temporary cover correct (if required):	M.S	P.D	
Permeant cover and frame correct:	M.S	P.D	
Other (give details):			

AS BUILT INFORMATION

S1-AC3	Easting (mE)	Northing (mN)
Theoretical:	384437.543	401638.797
Actual:	384437.53	401638.791
Difference (mm):	-0.013	-0.006
S1-AC5	Easting (mE)	Northing (mN)
Theoretical:	384454.77	401620.634
Actual:	384454.782	401620.62
Difference (mm):	0.012	-0.014

	Theoretical	Actual	Diff (mm)
Tank IL (AC1)	61.4	61.431	0.031
Tank IL (AC2)	61.325	61.349	0.024

NCR Ref (for noncompliances) :

APPROVALS - CHAMBER ACCEPTABLE

Approved by:
for Sub-Contractor

Signature:

M Scott

Name:

Mike Scott

Approved by:

for Principal Contractor

Signature:

P Davies

Name:

Phil Davies

PROJECT NAME:	AMLC	LOCATION:		
PROJECT No:	N3939	South Elevation		DATE: 10/02/2022

DRAINAGE MANHOLE / TANK INFORMATION

Chamber ref:	Oil Interceptor (S1-OS1)
Drawing & details ref:	As Attached

INSPECTIONS

	APPROVAL (INITIALS)		Comments
	Expanded	LOR	
Invert levels of inlets, outlet correct:	M.S	P.D	
Stub pipes correct:	M.S	P.D	
Formation acceptable: (visual inspection of formation)	M.S	P.D	
Segments correct (inc seals):	M.S	P.D	
Step irons/ladder correct: (spacing, verticality, horizontal and orientation)	M.S	P.D	
Making good around incoming connection completed (pipes & ducts):	M.S	P.D	
Finishing to chamber internals correct:	M.S	P.D	
Biscuit(s) correct (bedding & orientation):	M.S	P.D	
Temporary cover correct (if required):	M.S	P.D	
Permeant cover and frame correct:	M.S	P.D	
Other (give details):			

AS BUILT INFORMATION

S1-AC3	Easting (mE)	Northing (mN)
Theoretical:	384458.88	401618.822
Actual:	384458.855	401618.828
Difference (mm):	-0.025	0.006

	Theoretical	Actual	Diff (mm)
Tank IL (AC1)	61.15	61.17	0.02

NCR Ref (for noncompliances) :

APPROVALS - CHAMBER ACCEPTABLE

Approved by:
for Sub-Contractor

Signature:

M Scott

Name:

Mike Scott

Approved by:

for Principal Contractor

Signature:

P Davies

Name:

Phil Davies

PROJECT NAME:	AMLC	LOCATION:		
PROJECT No:	N3939	South Elevation		DATE: 21/03/2022

DRAINAGE MANHOLE / TANK INFORMATION

Chamber ref:	Backwash Tank (F2-AC1 - F2-AC2)
Drawing & details ref:	As Attached

INSPECTIONS

	APPROVAL (INITIALS)		Comments
	Expanded	LOR	
Invert levels of inlets, outlet correct:	M.S	P.D	
Stub pipes correct:	M.S	P.D	
Formation acceptable: (visual inspection of formation)	M.S	P.D	
Segments correct (inc seals):	M.S	P.D	
Step irons/ladder correct: (spacing, verticality, horizontal and orientation)	M.S	P.D	
Making good around incoming connection completed (pipes & ducts):	M.S	P.D	
Finishing to chamber internals correct:	M.S	P.D	
Biscuit(s) correct (bedding & orientation):	M.S	P.D	
Temporary cover correct (if required):	M.S	P.D	
Permeant cover and frame correct:	M.S	P.D	
Other (give details):			

AS BUILT INFORMATION

F2-AC1	Easting (mE)	Northing (mN)
Theoretical:	384463.804	401616.312
Actual:	384462.961	401617.087
Difference (mm):	-0.843	0.775
F2-AC2	Easting (mE)	Northing (mN)
Theoretical:	384467.596	401612.653
Actual:	384468.8	401611.474
Difference (mm):	1.204	-1.179

Note:- Centres of tank access point differ in design to the coordinates drawn on the Ramboll drawing 51102

	Theoretical	Actual	Diff (mm)
Tank IL (AC1)	61.2	61.235	0.035
Tank IL (AC2)	61.2	61.229	0.029

NCR Ref (for noncompliances) :

APPROVALS - CHAMBER ACCEPTABLE

Approved by:
for Sub-Contractor

Signature:

M Scott

Name:

Mike Scott

Approved by:

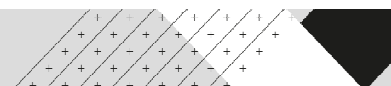
for Principal Contractor

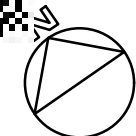
Signature:

P Davies

Name:

Phil Davies





KEY TO HEALTH AND SAFETY SYMBOLS	
	INDICATES A RESIDUAL RISK REQUIRING A COMPULSORY ACTION
	INDICATES A RESIDUAL RISK FOR INFORMATION
	INDICATES A RESIDUAL RISK REQUIRING A PROHIBITIVE ACTION
	INDICATES A RESIDUAL RISK AS A WARNING

- ### KEY

ONAL TO HAZARDS/RISKS NORMALLY ASSOCIATED WITH

AND THE PRINCIPAL CONTRACTOR FOR MORE RISKS ASSOCIATED WITH THIS WORK.

Note

- Drawing No: **IP44107-BAM-B01-XX-DR-D-51101** Rev: **C03**

- SWIMMING POOL BACKWASH WILL BE DRAINED INTO THE EXISTING DRAINAGE NETWORK, AND ULTIMATELY THE PUBLIC SEWER AT A PASS FORWARD RATE OF 3 L/S SUBJECT TO DRADE EFFLUENT CONSENT AND APPROVAL FROM UU
- **TRADE EFFLUENT APPLICATION BY OTHERS**
- EXISTING SERVICES SUPPLYING THE EXISTING BUILDING WILL BE REMOVED. ANY NEW OR RETAINED SERVICES CAN BE TEMPORARILY DIVERTED TO ALLOW THE INSTALLATION OF THE PROPOSED DRAINAGE SYSTEM
- EXTERNAL LEVELS ARE TO REMAIN COMPARABLE TO THE EXISTING SITE SCENARIO, ESPECIALLY AT TIE IN AREAS