Planning Condition 24 – Drainage Verification Report

Project: One Victoria, Manchester
Prepared and Issued by: Torsion Construction Ltd
Date: October 2025

1. Introduction

This report has been prepared by Torsion Construction Ltd to demonstrate compliance with Planning Condition 24. The purpose of this report is to confirm that the Drainage has been constructed, verified, and provided with appropriate long-term management and maintenance arrangements.

2. Planning Condition 24 Requirements

Condition 24 requires that the following documents and evidence be submitted for approval:

1. A verification report providing photographic evidence of construction as per the approved design drawings.
2. As-built construction drawings (if different from design drawings).
3. A management and maintenance plan for the lifetime of development, including arrangements for adoption by a public body or statutory undertaker, or any other provisions to ensure operation of the sustainable drainage scheme throughout its lifetime.

3. Verification Report

During RIBA Stage 5 (Construction), Civic Engineers undertook routine site visits to review progress of the below-ground drainage works at One Victoria, Manchester. The inspections confirmed that the works were carried out in accordance with the design information and Employers' Requirements, subject to allowable construction tolerances.
Reference is made to the contractor and subcontractor as-built drawings and photographic records, which may supersede the as-designed information. These have been reviewed and are considered to be consistent with the approved design intent.

A summary of the drainage verification and engineering drawings prepared by Civic Engineers (Ref: 756-02) is appended as Appendix A to this report.

A register of all drainage Quality Inspection Records complete with Photographic evidence is appended as Appendix B to this report.

4. As-Built Construction Drawings

Design construction drawings included as verification report confirms “as built” drawings will not be different.

Construction drawings appended as Appendix A to this report.

5. Management and Maintenance Plan

The long-term management and maintenance of the drainage system shall be undertaken in accordance with the ‘Drainage Maintenance Schedule’ prepared by Civic Engineers (Report Ref: 756-02, September 2025), appended as Appendix C.
The maintenance plan sets out inspection frequencies, cleaning requirements, and remedial actions for the following key components:

- Inspection chambers and manholes
- Pipes
- Slot drains, rills, and gullies
- Vortex flow control devices

Routine inspections are to be undertaken monthly for the first three months post-completion, followed by six-monthly intervals, and within 48 hours after significant storm events. Remedial work shall be undertaken as necessary to ensure continued performance of the SuDS features and to mitigate flood risk.

The arrangement for adoption is covered within our drainage diversion drawings and agreed with relevant bodies are indicated on drawings. (204-CIV-00-XX-DR-D-3110, 204-CIV-00-XX-DR-D-3101 Page 9 & 12)

A Drainage Maintenance Schedule prepared by (Civic Engineers, Ref: 756-02, September 2025) is appended as Appendix C to this report.

Appendices

Appendix A – Drainage Verification Report (Civic Engineers, Ref: 756-02, October 2025)

Appendix B – Quality Inspection Records complete with Photographic evidence

Appendix C – Drainage Maintenance Schedule (Civic Engineers, Ref: 756-02, September 2025)

Our Reference: 756-02

Torsion Construction
1280 Century Way
Thorpe Park
Leeds
LS15 8ZB

07/10/2025

One Victoria, Manchester – Verification Report on Below Ground Drainage

During RIBA Stage 5 (Construction) Civic Engineers conducted routine site visits to review progress of the below ground drainage works and to see that the works were in accordance with design information and Employers Requirements.

Site visits were conducted with decreasing frequency as the programme of civil structural engineering works progressed towards completion.

The Civil Engineering works has not been subject to a detailed site survey or full and thorough inspection. Therefore reference should be made to the contractor and subcontractor drawings and photographic records which may superseded the As Designed information.

Allowable construction tolerances may have resulted in differences between the as constructed works, and that defined within the construction issue drawings.

Yours sincerely,

Dan Podesta, Associate Director

On Behalf of Civic Engineers

Civic Engineers Limited (registered number 06824088)
Registered in England and Wales at: Carvers Warehouse, 77 Dale Street, Manchester M1 2HG

TEMPORARY STUB CONNECTION PROVIDED TO SERVE SITE WELFARE FACILITIES DURING CONSTRUCTION PHASE.

S201
CL: 28.□00
IL: 27.332

F204
CL: 28.□00
IL: 27.407

S200
CL: 28.□00
IL: 28.150

S202
CL: 28.□00
IL: 27.080

S203
CL: 28.□00
IL: 27.045

F202
CL: 28.□00
IL: 27.535

F203
CL: 28.□00
IL: 27.4□5

F201
CL: 28.□00
IL: 28.150

S203A
CL: 28.□00
IL: 27.853

CONNECTIONS TO BE SLEEVED THROUGH WALL

LONG RADIUS BEND RE□ UIRED TO AVOID PILECAP PC5

F205
CL: 28.□25
IL: 27.2□3

F207
CL: 28.□25
IL: 27.100

ALL RWP AND SVP DROPS TO BE CONFIRMED BY ARCHITECT

F200
CL: 28.□00
IL: 27.723

F208
CL: 28.□25
IL: 27.340

TANK S2
15m2 □ 0.8m
STORAGE VOL □ 11.4 m3
IL: 2□.□40
TANK TO MANUFACTURER DESIGN AND INSTALLATION

C200
CL: 28.350
IL: 2□.831

PROPOSED BACKDROP CONNECTION TO PUBLIC COMBINED SEWER DIVERSION SUBJECT TO UNITED UTILITIES S10□ APPROVAL

F20□
CL: 28.□25
IL: 27.380

S204
CL: 28.□25
IL: 27.□00

BRESLYN STREET

CWD01 1.8m
CL: 28.254
IL: 24.67□ TBC

PROPOSED SADDLE CONNECTION TO PUBLIC COMBINED SEWER DIVERSION SUBJECT TO UNITED UTILITIES S10□ APPROVAL

Ex. MH IC 7007
CL 28.36
IL 23.76

S205
HYDROBRAKE OPTIMUM O.S.A
MD-SHE-0102-5200-1400-5200
DESIGN HEAD: 1.4m
DESIGN FLOW: 5.2 □/□
CL: 28.350
IL: 2□.8□5

F103
CL: 28.700
IL: 27.□□5

C100
CL: 28.700
IL: 2□.770

F102
CL: 28.700
IL: 27.775

F104
CL: 28.700
IL: 2□.8□5

S101
CL: 28.700
IL: 27.470

CONNECTIONS TO BE SLEEVED THROUGH WALL

F101
CL: 28.800
IL: 28.150

S100
CL: 28.800
IL: 28.000

F100
CL: 28.800
IL: 28.050

TANK S1
5.0m □ 1.5m □ 0.8m MIN
5.5m □ 1.5m □ 0.8m MAX
STORAGE VOL □ □.08 m3
IL: 27.300
TANK TO MANUFACTURER DESIGN AND INSTALLATION

S102
HYDROBRAKE OPTIMUM O.S.A
MD-SHE-0077-2□00-1000-2□00
DESIGN HEAD: 1.0m
DESIGN FLOW: 2.□ □/□
CL: 28.700
IL: 27.285

CWD02 2.4m
CL: 28.700
IL: 24.535 525
IL:24.121 3

PROPOSED CONNECTION OF PROPOSED DIVERSION TO EXISTING PUBLIC SEWER VIA SECTION 185 DIVERSION AWAITING UNITED UTILITIES APPROVAL.

NO WORKS ON THE PUBLIC SEWER TO BE COMMENCED BEFORE APPROVAL IS RECEIVED.

Ex. MH IC 7005
CL: 28.710
IL: 24.410

PROPOSED COMBINED WATER SEWER 525 CONC AT 1:125

EXISTING PUBLIC COMBINED WATER SEWER 3 CONC AT 1:83

EXISTING PUBLIC COMBINED WATER SEWER 3 CONC AT 1:83

RAILWAY VIADUCT

By Department Legend
- Am□□□ Spa□
- B□d□□
  Ma□a□ m□□
- C□a□□□ S□□
- C□mm□

HEALTH □ SAFETY: THE WORKS SHALL BE CARRIED OUT BY SPECIALIST COMPETENT AND EXPERIENCED CONTRACTORS. ALL OPERATIVES SHALL HAVE RECEIVED FULL AND APPROPRIATE TRAINING WITH APPROPRIATE □UALIFICATIONS FOR THE OPERATIONS THEY ARE RE□UIRED TO UNDERTAKE. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT HEALTH □ SAFETY REGULATIONS.

DRAINAGE NOTES
ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER FOR ACTION PRIOR TO CONSTRUCTION.

ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RE□ UIREMENTS OF THE LOCAL AUTHORITY AND IN CONJUNCTION WITH ALL RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND □ESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS□AND ADDENDUMS AS APPROPRIATE.
ALL DRAINAGE SHALL COMPLY WITH THE TYPICAL DRAINAGE CONSTRUCTION DETAILS AND THE RE□ UIREMENTS OF BS EN 752.

ACCESS COVERS AND FRAMES SHALL COMPLY WITH THE LOADINGS SPECIFIED AND TO BS EN 124 AND KITEMARKED OR IF RECESSED COVERS ARE SPECIFIED THEN IN ACCORDANCE WITH FACTA ASSOCIATION E□ UIVALENT.

ALL INTERNAL COVERS TO BE DOUBLE SEALED RECESSED COVERS TO ACCEPT PROPOSED FLOOR FINISHES.

THE PROPOSED BUILDING OUTLINES SHOWN ON THIS DRAWING ARE FOR INFORMATION ONLY. REFER TO ARCHITECTS PLANS FOR SETTING OUT INFORMATION AND DETAILS.

FOR SETTING OUT DIMENSIONS OF SS□5, SVP□5, RWP□5, FLOOR GULLY □ OTHER DRAINAGE □OP UP□LOCATIONS, REFER TO ARCHITECTS OR MECHANICAL □ ELECTRICAL ENGINEERS DRAWINGS. LOCATION OF EXTERNAL CHANNEL DRAINS AND GULLY LOCATIONS / RE□ UIREMENTS TO BE CONFIRMED BY ARCHITECT.
ALL DRAINAGE PIPEWORK SHOWN SHALL BE 100MM DIAMETER FOR FOUL AND 150MM FOR SURFACE WATER UNLESS NOTED OTHERWISE.
ALL DRAINAGE PIPEWORK SHALL BE LAID SOFFIT TO SOFFIT UNLESS NOTED OTHERWISE.

ALL UNDERSLAB DRAINAGE SHALL BE LAID AT GRADIENTS OF 1:80 MIN. FOR FOUL PIPEWORK AND 1:100 MIN. FOR SURFACE WATER UNLESS NOTED OTHERWISE. ALL UNDERSLAB DRAINAGE SHALL BE CLEAR OF FOUNDATIONS UNLESS SHOWN OTHERWISE.
ALL BENDS IN PIPEWORK TO BE AS LARGE A RADIUS AS POSSIBLE (EXCLUDING CONNECTIONS TO CHAMBERS) TO ENSURE FREE FLOW. SHORT RADIUS BENDS TO BE AGREED WITH DRAINAGE ENGINEER.

ALL SURFACE WATER DROP DOWN POSITIONS SHALL HAVE A BEND SET AT INVERT LEVEL NO GREATER THAN 1.3M BELOW FINISH FLOOR LEVEL.

AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FOUL RUN SHALL BE VENTED TO THE ATMOSPHERE. ALL SVPS, SSS AND RWP DOWNPIPES SHALL BE ACCESSIBLE AT GROUND LEVEL FOR RODDING PURPOSES.

COVER LEVELS SHOWN ON THIS DRAWING ARE APPROXIMATE AND SHALL BE ADJUSTED TO SUIT LEVELS ON SITE BY CONTRACTOR. COVERS SHALL BE ORIENTATED TO SUIT PAVEMENT FINISHES WHERE APPROPRIATE.
ALL COVER LEVELS ARE TO BE CONFIRMED BY THE ARCHITECT

ALL PRIVATE DRAINAGE PIPEWORK FOR FOUL AND SURFACE WATER SYSTEMS HAVE BEEN DESIGNED ON THE BASIS OF UPVC TO BS EN 1401-1, UNLESS NOTED OTHERWISE.

CONCRETE ENCASEMENT OF THE PIPEWORK SHALL BE RE□ UIRED WHERE VERTICAL CLEARANCE BETWEEN TWO PIPES CROSSING IS LESS THAN 300MM.
WHERE NEW DRAINAGE IS SITUATED WITHIN 5 METRES OF NEW OR EXISTING TREES THE PIPEWORK SHALL BE ENCASED IN CONCRETE TO REDUCE THE RISK OF ROOT INGRESS.

ALL DRAINAGE CONNECTING TO THE PUBLIC SEWER NETWORK SHALL NOT COMMENCE UNTIL RECEIPT OF THE APPROVAL FROM THE DRAINAGE AUTHORITY AND SHALL COMPLY WITH RE□ UIREMENTS USING VITRIFIED CLAY PIPEWORK TO BS EN 2□5 WITH PLAIN SLEEVED OR SOCKETED FLEXIBLE JOINTS SUBJECT TO APPROVAL.

WHERE DRAINAGE WORKS ARE CARRIED OUT IN THE PUBLIC HIGHWAY THE RELEVANT NECESSARY APPROVALS AND ROAD OPENING NOTICES SHALL BE OBTAINED FROM THE HIGHWAY AUTHORITY AND UTILITY COMPANIES.

PRIOR TO CONSTRUCTION THE FLOW CONTROL MANUFACTURER□S DRAWING AND HYDRAULIC TABLE SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL

PRIOR TO CONSTRUCTION THE ATTENUATION TANK MANUFACTURER□S DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL

UPON COMPLETION ALL NEW DRAINAGE INSTALLATION TOGETHER WITH ANY EXISTING DRAINAGE RETAINED SHALL BE JETTED AND CCTV SURVEYED UPON COMPLETION. CONTRACTOR TO ENSURE THAT THE DRAINAGE SYSTEM IS FULLY OPERATIONAL, FREE OF EXCESS DEBRIS/SILT AND ALL IDENTIFIED FAULTS RECTIFIED.

S□□d□rd N□□□

1. T□□ dr□□ □□ □ □ □□ r□□d □ □□□□□□□□ □ □□ □□□ r□□□□□□Ar□□□□□□□ R□d □□□□□r□ dr□□ □□□ R□d □□□ □□□□□□□□□.
2. T□□ dr□□ □□ □□□□d □□□□□ □□□□d.
3. A□d□m□□□□□□ r□ □ □□ □r□□d □□ □□ □□□ □□□□□□r □□ □□□.
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CIVIC ENGINEERS LIMITED

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TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS. RECEIVED ON: 07.0□.22 DRG NO: 41020MCLS-01

ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL RWP AND SVP DROPS TO BE CONFIRMED BY ARCHITECT

ALL POP UP REST BENDS ARE SET MIN 450mm BELOW SSL

WHERE POP UPS ARE LOCATED ON PILECAPS / GROUND BEAMS AND A CONTINUOUS GRADE CANNOT BE ACHIEVED PIPE SHOULD BE SET AT A MIN 1:40 GRADIENT UNTIL CLEAR OF PILECAP FOOTPRINT WITH A BEND TO ALLOW FOR STEEP GRADIENT CONNECTION TO DOWNSTREAM INSPECTION CHAMBER.
REFER TO TYPICAL DETAIL ON DRAWING C-31001

- FOUL SEWER 100mm DIAMETER UNLESS OTHERWISE NOTED
- STORM SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- COMBINED SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- EXISTING PUBLIC COMBINED SEWER
- PROPOSED S185 CW SEWER DIVERSION
- FOUL SEWER INSPECTION CHAMBER 450mm DIAMETER
- STORM SEWER INSPECTION CHAMBER 450mm DIAMETER
- SW FLOW CONTROL CHAMBER
- COMBINED SEWER INSPECTION CHAMBER / MANHOLE
- STUB STACK
- SVP
- RWP
- FLOOR GULLY
- SLOT DRAIN ACO M100D WITH BRICKSLOT ST GRATING
- YG YARD GULLY

24.08.23	C04	S203 REINSTATED. S203A REFERENCE UPDATED	□G	CK
21.08.23	C03	POP UP LOCATIONS UPDATED	□G	CK
03.08.23	C02	PROPOSED DIVERSION UPDATED	□G	JF
11.07.23	C01	ISSUED FOR CONSTRUCTION	□G	CK
08.12.22	P07	RWP ADDED/LAYOUT AMENDED	CD	□G
2□.11.22	P06	DRAINAGE UPDATED	CD	CK
25.11.22	P05	DRAINAGE UPDATED	□G	CK
02.11.22	P04	DRAINAGE UPDATED	CD	CK
18.10.22	P03	UPDATED FLU□AND DRAINAGE	CD	CK
12.0□.22	P02	COORDINATED WITH M□ E DESIGN	□G	CK
04.07.22	P01	FOR INFORMATION	CD	CK
D□□	R□□	D□□□r□□□□	Dr□□ □	Ch□d

Civic Engineers
MANCHESTER
LONDON
LEEDS
GLASGOW

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ONE VICTORIA
MANCHESTER

T□□

DRAINAGE GENERAL ARRAGEMENT

S□□□□

CONSTRUCTION

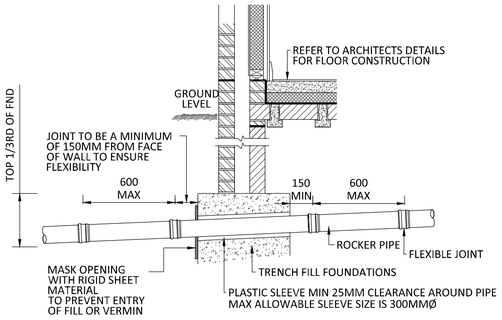
Pr□□□□N□m□r	S□□□ □ A1	D□□□ Cr□□□d	Dr□ □	Ch□□□d	S□□□□□□
75□-02	1:100	04.07.22	CD	CK	----

Dr□□ □□ N□m□r

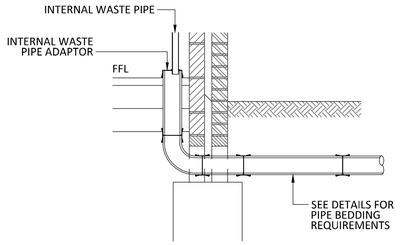
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R□□□□□

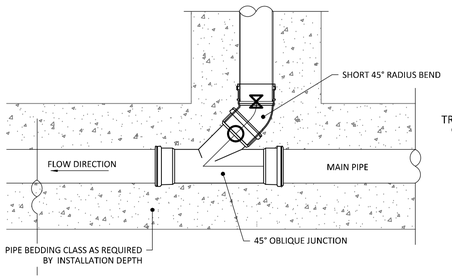
C04



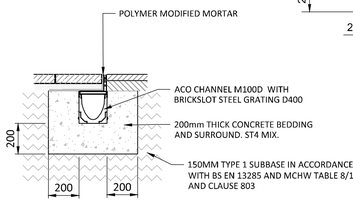
TYPICAL DETAIL OF PIPE PASSING THROUGH FOUNDATION



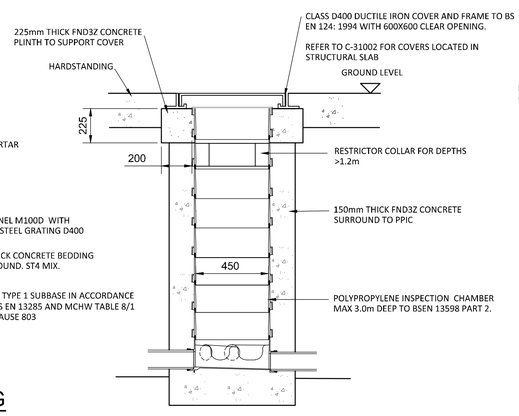
TYPICAL INTERNAL WASTE PIPE CONNECTION DETAIL



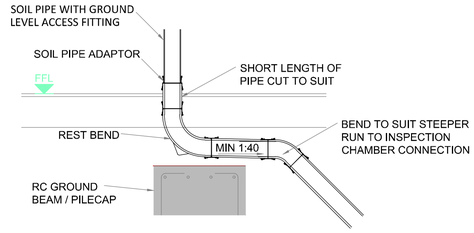
TYPICAL 45° PIPE JUNCTION CONNECTION DETAIL



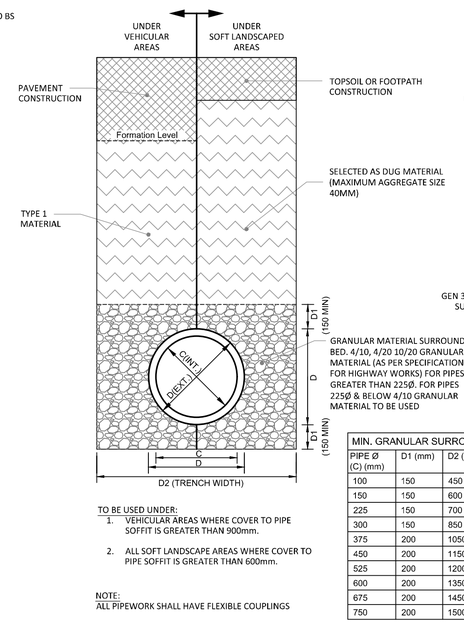
SLOT DRAIN- ACO CHANNEL WITH BRICKSLOT ST GRATING



POLYPROPYLENE INSPECTION CHAMBER



TYPICAL PIPE BENDING OVER FOUNDATION

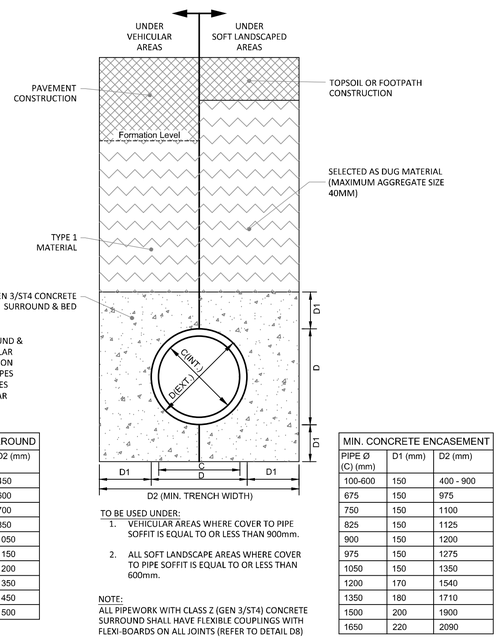


TO BE USED UNDER:
1. VEHICULAR AREAS WHERE COVER TO PIPE SOFFIT IS GREATER THAN 900mm.
2. ALL SOFT LANDSCAPE AREAS WHERE COVER TO PIPE SOFFIT IS GREATER THAN 600mm.

NOTE:
ALL PIPEWORK SHALL HAVE FLEXIBLE COUPLINGS

MIN. GRANULAR SURROUND		
PIPE Ø (C) (mm)	D1 (mm)	D2 (mm)
100	150	450
150	150	600
225	150	700
300	150	850
375	200	1050
450	200	1150
525	200	1200
600	200	1350
675	200	1450
750	200	1500

CLASS S PIPE BEDDING & SURROUND (TO BE USED FOR PLASTIC, VITRIFIED CLAY & CONCRETE PIPEWORK)

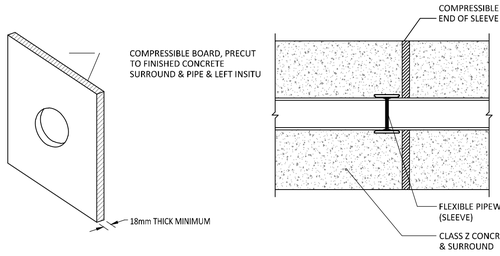


TO BE USED UNDER:
1. VEHICULAR AREAS WHERE COVER TO PIPE SOFFIT IS EQUAL TO OR LESS THAN 900mm.
2. ALL SOFT LANDSCAPE AREAS WHERE COVER TO PIPE SOFFIT IS EQUAL TO OR LESS THAN 600mm.

NOTE:
ALL PIPEWORK WITH CLASS Z (GEN 3/ST4) CONCRETE SURROUND SHALL HAVE FLEXIBLE COUPLINGS WITH FLEXI-BOARDS ON ALL JOINTS (REFER TO DETAIL D8)

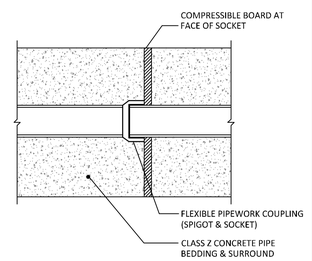
MIN. CONCRETE ENCASEMENT		
PIPE Ø (C) (mm)	D1 (mm)	D2 (mm)
100-600	150	400 - 900
675	150	975
750	150	1100
825	150	1125
900	150	1200
975	150	1275
1050	150	1350
1200	170	1540
1350	180	1710
1500	200	1900
1650	220	2090

CLASS Z PIPE BEDDING & SURROUND (TO BE USED FOR PLASTIC, VITRIFIED CLAY & CONCRETE PIPEWORK)

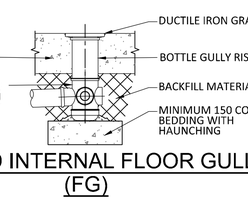


FLEXIBLE JOINT DETAIL FOR CONCRETE ENCASED SPIGOT & SOCKET JOINTED PIPES

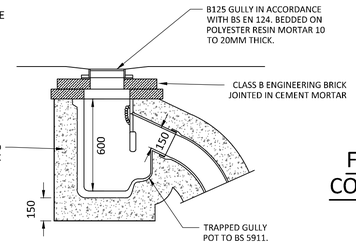
FLEXIBLE JOINT DETAIL FOR CONCRETE ENCASED SLEEVE JOINTED PIPES



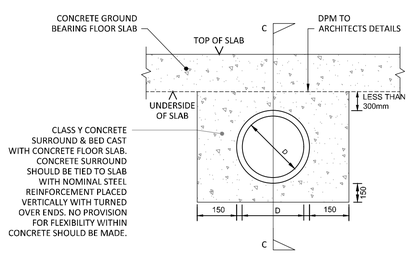
FLEXIBLE JOINT DETAIL FOR CONCRETE ENCASED PIPES (TO B.S. 1142)



TRAPPED INTERNAL FLOOR GULLY (FG)



TYPICAL YARD GULLY DETAIL

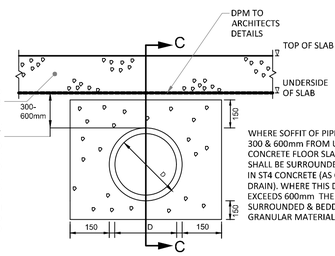


SECTION A-A

WHERE DISTANCE BETWEEN PIPE SOFFIT & UNDERSIDE OF CONCRETE GROUND BEARING FLOOR SLAB/GROUND BEAM IS LESS THAN 300mm

WHERE SOFFIT OF PIPE IS WITHIN 300mm OF UNDERSIDE OF CONCRETE FLOOR SLAB, THE PIPE SHALL BE SURROUNDED & BEDDED INTEGRAL WITH REINFORCED GROUND SLAB (REFER TO CIVIC STRUCTURAL DRGS FOR DETAILS)

NOTE:
ROCKER PIPE DETAIL SHOULD BE USED AS THE PIPE LEAVES THE CONCRETE SURROUND CAST WITH CONCRETE FLOOR SLAB.(ie. 150mm FROM EDGE OF CONCRETE STRUCTURE TO FIRST FLEXIBLE COUPLING, 600mm LONG ROCKER PIPE WITH FLEXIBLE COUPLINGS & COMPRESSIBLE BOARDS ON EACH COUPLING IF PIPE IS TO HAVE CLASS Z SURROUND & BED.)

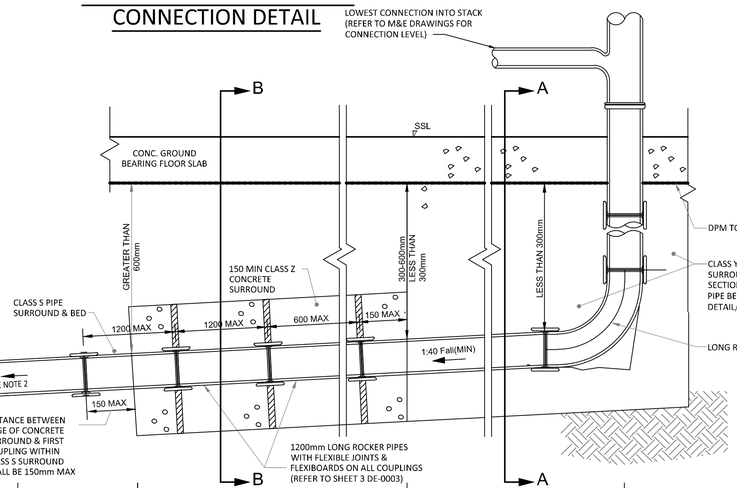


NOTE:
IF DISTANCE IS 300-600mm CLASS Z CONCRETE SURROUND & BED TO BE USED WITH FLEXIBLE COUPLINGS & FLEXI-BOARDS USED ON EACH JOINT. ROCKER PIPE DETAIL TO BE USED AS PIPE LEAVES CONCRETE SURROUND & BED. IF DISTANCE IS GREATER THAN 600mm CLASS S SURROUND & BED SHALL BE USED

WHERE SOFFIT OF PIPE IS BETWEEN 300 & 600mm FROM UNDERSIDE OF CONCRETE FLOOR SLAB, THE PIPE SHALL BE SURROUNDED & BEDDED IN ST4 CONCRETE (AS CLASS Z, DRAIN). WHERE THIS DISTANCE EXCEEDS 600mm THE PIPE SHALL BE SURROUNDED & BEDDED IN GRANULAR MATERIAL

SECTION B-B

WHERE DISTANCE BETWEEN PIPE SOFFIT & UNDERSIDE OF FLOOR SLAB/GROUND BEAM IS GREATER THAN 300mm



CROSS-SECTION C-C

NOTES:
1. THIS DETAIL SHALL ONLY BE USED UNDER AREAS OF GROUND BEARING SLAB WHERE UNDER SLAB PIPEWORK CAN BE SUPPORTED BY UNDER SLAB FILL MATERIAL.
2. CONNECTION INTO INTERNAL MANHOLE OR MAIN UNDER SLAB RUN OR EXIT THROUGH FOUNDATION EDGE DETAIL (REFER TO DRAINAGE PLAN)

TYPICAL UNDERSLAB PIPE BEDDING DETAILS FOR PIPEWORK UNDER STRUCTURAL SLAB

S[illegible]d N[illegible]

1. T[illegible] dr[illegible] [illegible] [illegible] [illegible] r[illegible]d [illegible] r[illegible]. [illegible] [illegible] r[illegible] Ar[illegible] r[illegible] d Engineering dr[illegible] [illegible] r[illegible] [illegible] [illegible].
2. T[illegible] dr[illegible] [illegible] [illegible] [illegible] [illegible].
3. Af[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].
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CIVIC ENGINEERS LIMITED

N[illegible] K[illegible]

11.07.23	C01	ISSUED FOR CONSTRUCTION	[illegible]	CK
18.10.22	P03	DETAILS UPDATED	CD	CK
12.08.22	P02	ISSUED FOR INFORMATION	[illegible]	CK
04.07.22	P01	FOR INFORMATION	CD	CK
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Civic Engineers

MANCHESTER [illegible]
LONDON [illegible]
LEEDS [illegible]
GLASGOW [illegible]

[illegible]

ONE VICTORIA
MANCHESTER

[illegible]

DRAINAGE DETAILS
SHEET 1

[illegible]

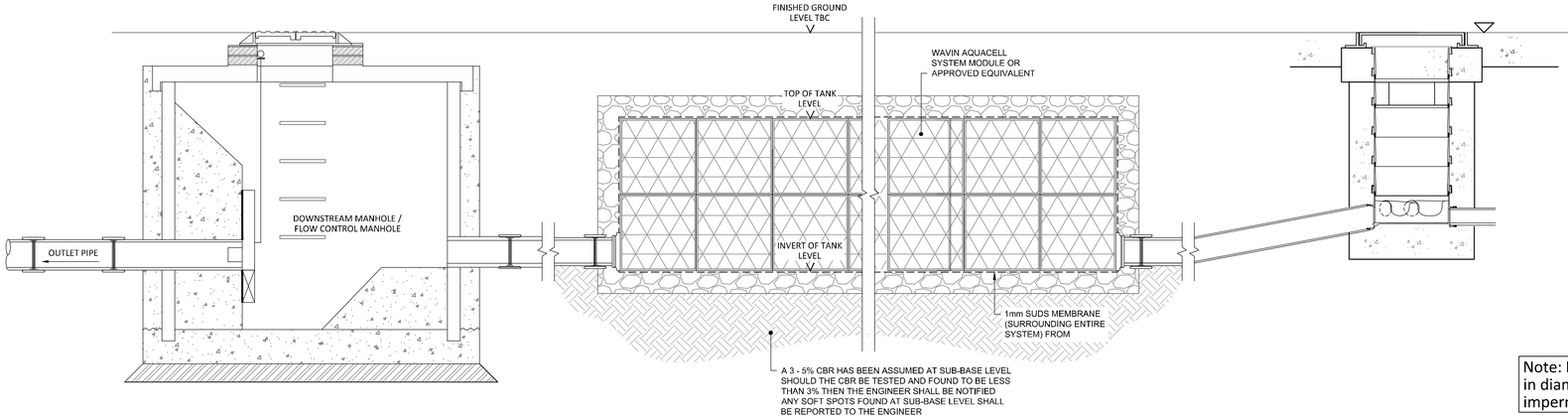
CONSTRUCTION

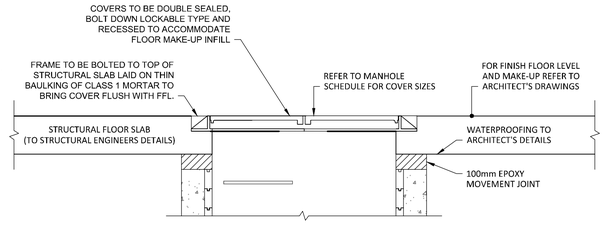
Pr[illegible] N[illegible]	S[illegible] A1	[illegible]	[illegible]	[illegible]	S[illegible]
75[illegible]-02	1:20	04.07.22	CD	CK	----

[illegible] N[illegible]

204-CIV-00-XX-DR-C-31001 | C01

TANK TO BE DESIGNED BY SUPPLIER TO SUIT LOADINGS AND GROUND CONDITIONS FOR BOTH PRE AND POST CONSTRUCTION PHASES



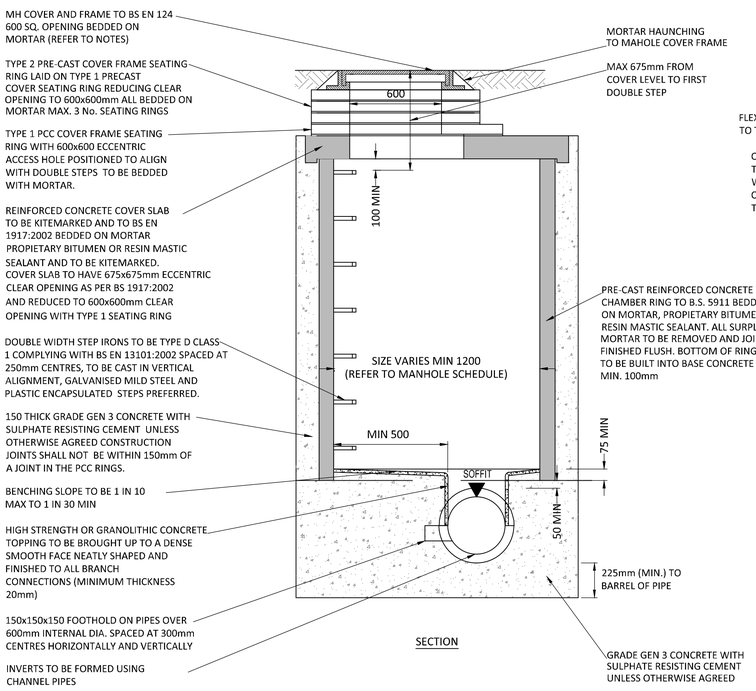


MANHOLE COVER DETAIL WITHIN STRUCTURAL SLAB

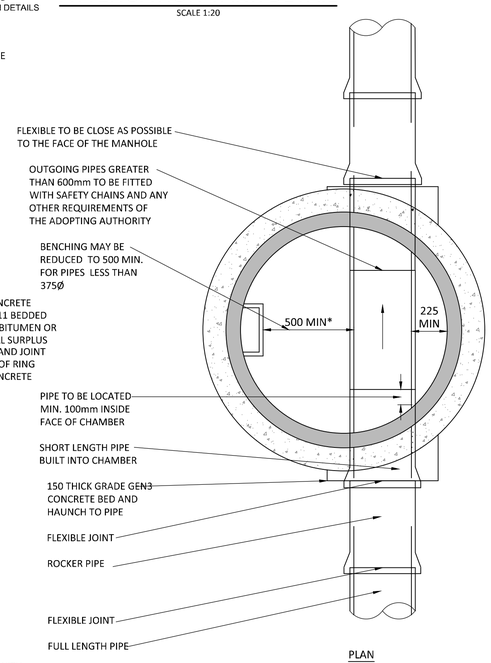
ATTENUATION TANK DETAIL

SCALE 1:20

NOTE: THIS DRAWING IS INDICATIVE ONLY SEE MANUFACTURER'S DRAWINGS AND SPECIFICATIONS FOR CONSTRUCTION DETAILS



SECTION



PLAN

NOMINAL SIZE	EFFECTIVE LENGTH (mm)
100 & BELOW	600
150 TO 600	600
675 TO 675	1000
825 AND ABOVE	1250

SHORT AND ROCKER PIPE LENGTHS

APPLICABLE TO ALL MANHOLE TYPES

DIA. OF LARGEST PIPE IN MH	CHAMBER SECTION INT.DIA. (mm)
LESS THAN 375mm	1200
375 TO 450	1350
500 TO 700	1500
750 TO 900	1800
1000	2100

TABLE APPLICABLE TO MANHOLE TYPES A & B

(CHAMBER SIZES ARE MINIMUM REQUIRED. SEE LAYOUT FOR VARIATIONS, IF ANY)

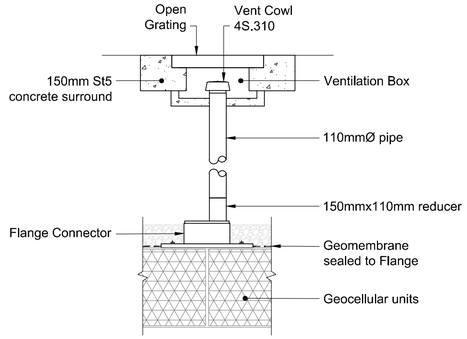
TYPICAL MANHOLE DETAIL - TYPE B DEPTH TO SOFFIT OF PIPE UP TO 3.00m

(SCALE 1:20)

FLOW CONTROL MANHOLE NOTES

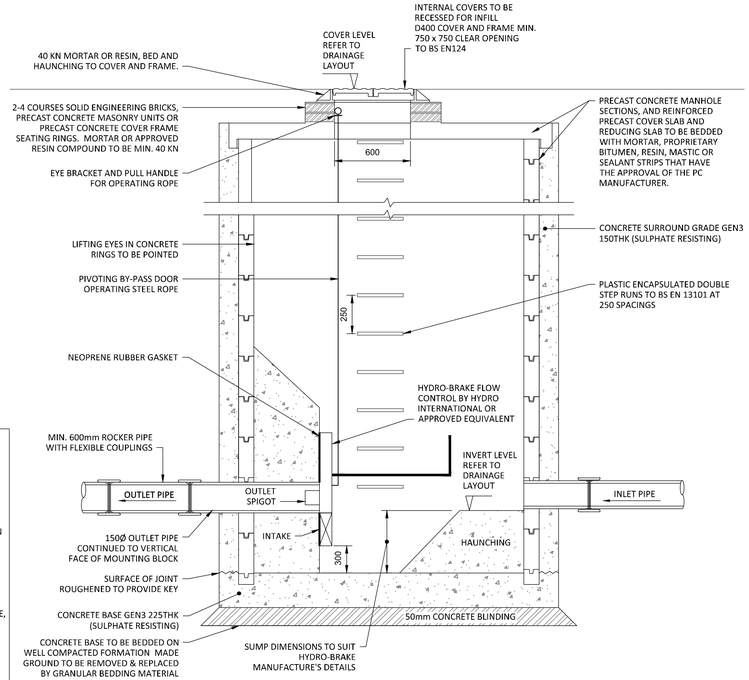
1. ALL DIMENSION ARE IN MILLIMETERS
2. PRECAST CONCRETE UNITS TO BE BS5911 PART 200 AND TO BE CONSTRUCTED WITH A MINIMUM CLASS 3 SULPHATE RESISTING CEMENT
3. ALL INSITU CONCRETE TO BE GEN3 SULPHATE RESISTING CONCRETE
4. MATERIALS FOR JOINTING MANHOLE RINGS TO BE A RUBBER BITUMEN COMPOUND OF APPROVED MANUFACTURER 'TOKSTRIP' OR SIMILAR.
5. ALL BRICKWORK TO BE CLASS B ENGINEERING -2 COURSES MIN:4 COURSES MAX; 225mm THICK
6. 20mm THICK GRANOLITHIC CONCRETE BENCHING TO BE BROUGHT UP TO A DENSE SMOOTH FACE NEATLY SHAPED AND FINISHED TO ALL BRANCH CONNECTIONS. WHERE BENCHING IS LESS THAN 450mm WIDE, SLOPE TO BE 1:10; MORE THAN 450mm, 1:30
7. PIPES ENTERING MANHOLES TO HAVE A FLEXIBLE JOINT AS CLOSE AS FEASIBLE TO OUTSIDE FACE OF ANY STRUCTURE INTO WHICH THE PIPE IS BUILT IN ORDER TO FACILITATE MOVEMENT OF THE JOINT. THE LENGTH OF THE NEXT PIPE (ROCKER PIPELINES, BEDDING, LAYING AND JOINTING OF PIPES AND BACKFILING OF TRENCHES SHALL BE IN ACCORDANCE WITH THE W.S.A.SPEC 'SEWERS FOR ADOPTION' - 7TH EDITION TOGETHER WITH ANY LOCAL AUTHORITY REQUIREMENTS.

Note: It is recommended that one vent pipe, 110mm in diameter, is provided per 7,500 square metres of impermeable catchment area on a site.



TYPICAL ATTENUATION TANK VENT DETAIL

SCALE 1:20



FLOW CONTROL MANHOLE DETAIL

Standard Notes

1. This drawing is to be read in conjunction with the relevant Architectural and Engineering drawings and specifications.
2. This drawing is based upon survey information.
3. Although reasonable care has been taken in the preparation of this drawing, all dimensions must be checked on site.
4. Although reasonable endeavours have been made to ensure the accuracy of this drawing, Civic Engineers Limited cannot accept responsibility for errors or omissions.

Notes Relating to Works

11.07.23	C01	ISSUED FOR CONSTRUCTION	IG	CK
18.10.22	P02	ISSUED FOR INFORMATION	CD	CK
12.05.22	P01	ISSUED FOR INFORMATION	IG	CK
Date	Rev	Description	Drwn	Chkd

Civic Engineers
MANCHESTER
LONDON
LEEDS
GLASGOW

Project

ONE VICTORIA MANCHESTER

Title

DRAINAGE DETAILS SHEET 2

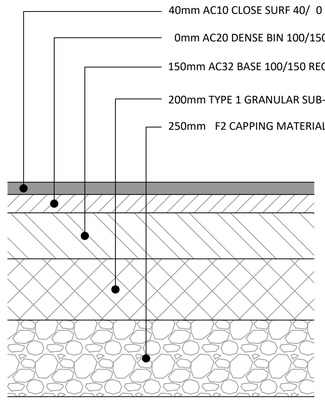
Status

CONSTRUCTION

Project No./Originator	Scale @ A1	Date Created	Drawn	Checked	Suitability
75[illegible]-02	1:20	12.0[illegible].22	IG	CK	----

Drawing No./Revision

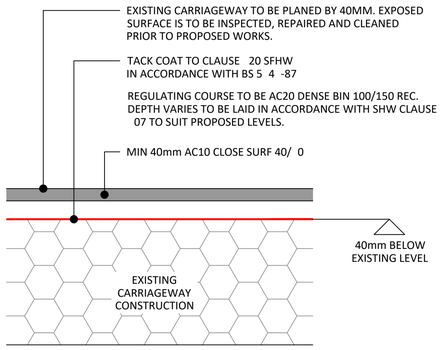
204-CIV-00-XX-DR-C-31002 — C01



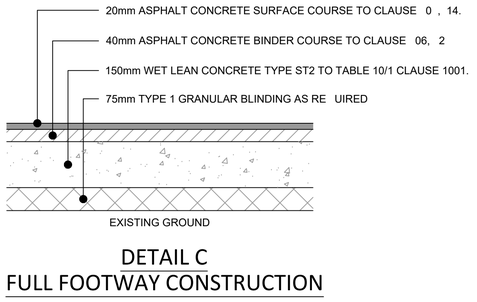
DETAIL A
FULL CARRIAGEWAY CONSTRUCTION

DETAIL A NOTES

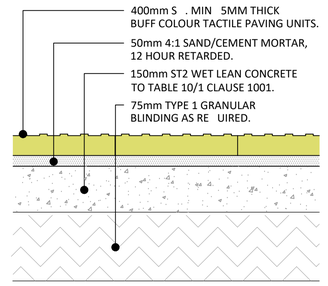
- WHERE NEW FULL DEPTH CARRIAGEWAY CONSTRUCTION IS RE UIRED, CBR TESTING MUST BE UNDERTAKEN ON THE FORMATION AT 10M INTERVALS, PRIOR TO CARRIAGEWAY CONSTRUCTION AND MUST RETURN A MINIMUM CBR OF 2.5 OR 31MPA. THE THICKNESS OF THE CAPPING AND SUBBASE MATERIAL SHOULD BE BASED UPON CBR RESULT AND TAKEN FROM FIGURE 3.20 FROM DMRB CD225. IF IT IS LESS THAN 2.5 , THEN GROUND REMEDIATION WILL BE RE UIRED. ANY PROPOSED REMEDIATION METHOD DISCUSSED AND AGREED WITH MCC ENGINEER PRIOR TO IMPLEMENTATION, WITH AND THE AREA RETESTED TO ENSURE THE GROUND MEETS THE 2.5 CBR MINIMUM.
- CBR TESTING IS RE UIRED ON CAPPING MATERIAL WITH MINIMUM ACCEPTABLE CBR OF 30 AND ON SUBBASE MATERIAL WITH MINIMUM ACCEPTABLE CBR OF 15 .
- NUCLEAR DENSITY TESTING (NDT) IS RE UIRED ON THE CARRIAGEWAY ROAD BASE AND BINDER COURSES WITH MINIMUM ACCEPTABLE RESULT OF 3 COMPACTION RE UIRED. THESE TESTS SHOULD BE UNDERTAKEN AT THE SAME LOCATIONS AS THE CBR TESTING.
- MINIMUM DEPTH OF CARRIAGEWAY CONSTRUCTION SHALL BE 450MM FOR FROST PROTECTION.



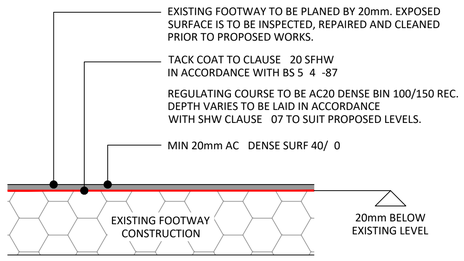
DETAIL B
PLANE / REGULATE / RESURFACE EXISTING CARRIAGEWAY CONSTRUCTION



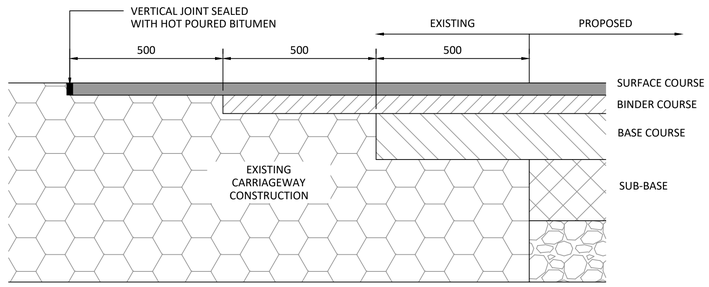
DETAIL C
FULL FOOTWAY CONSTRUCTION



DETAIL D
TACTILE PAVING CONSTRUCTION

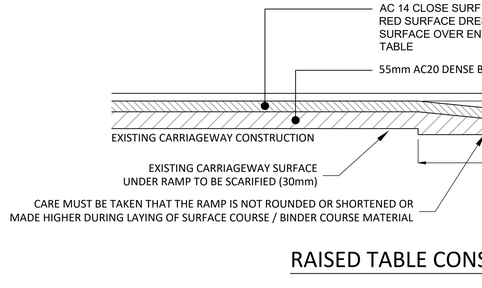


DETAIL E
FOOTWAY RESURFACING

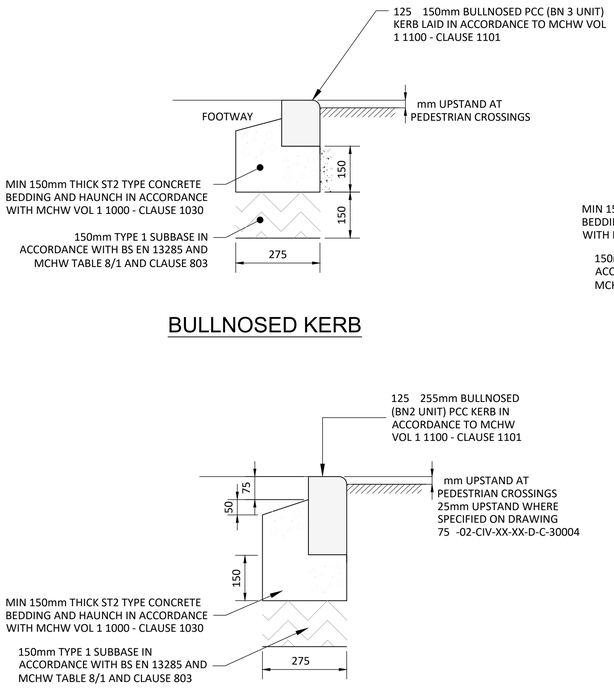


FOR PAVEMENT SPECIFICATION REFER TO DETAIL A

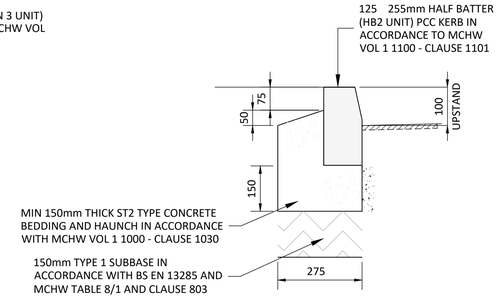
DETAIL F
PROPOSED CARRIAGEWAY TIE IN TO EXISTING DETAIL



RAISED TABLE CONSTRUCTION

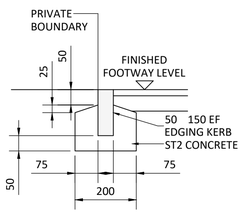


BULLNOSED KERB

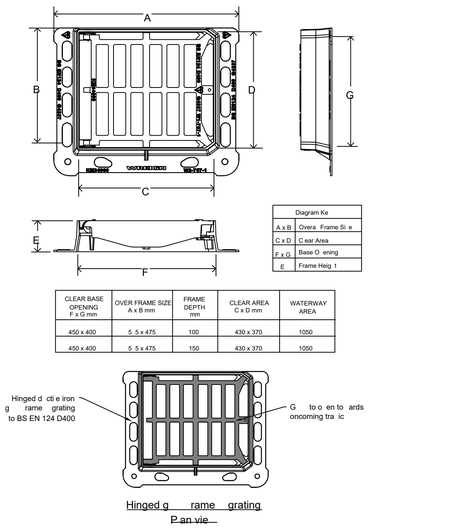


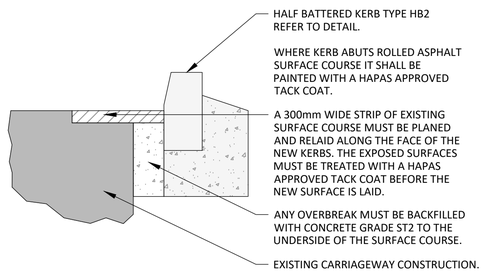
HB2 KERB

BULLNOSED KERB WITHIN RAISED TABLE EXTENTS



EF - EDGING KERB





KERB OVERBREAK CONSTRUCTION DETAIL

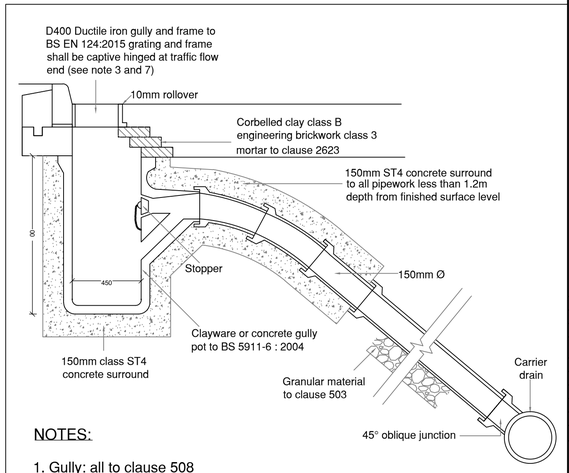
HALF BATTERED KERB TYPE HB2 REFER TO DETAIL.

WHERE KERB ABUTS ROLLED ASPHALT SURFACE COURSE IT SHALL BE PAINTED WITH A HAPAS APPROVED TACK COAT.

A 300mm WIDE STRIP OF EXISTING SURFACE COURSE MUST BE PLANED AND RELAID ALONG THE FACE OF THE NEW KERBS. THE EXPOSED SURFACES MUST BE TREATED WITH A HAPAS APPROVED TACK COAT BEFORE THE NEW SURFACE IS LAID.

ANY OVERBREAK MUST BE BACKFILLED WITH CONCRETE GRADE ST2 TO THE UNDERSIDE OF THE SURFACE COURSE.

EXISTING CARRIAGEWAY CONSTRUCTION.



NOTES:

1. Gully: all to clause 508
   a. Standard gully pot of 95 litres capacity (450mm Ø)
   b. Small gully pot to be 50 litres capacity (375mm Ø)
2. Maximum trench width for 150mm gully lead IS 600mm
3. Clause numbers refer to dept. of transport specification for highway works amended as appropriate
4. Number of bends may vary due to site differences
5. Concrete to comply with clause 2602 table 26/1
6. Concrete surround to pipes shall always finish at a joint
7. Gully gratings - MCC standard detail D47

GULLY DETAIL
1:20

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH S278 PLANS:

204-CIV-00-XX-DR-C-20001 - PROPOSED LEVELS
204-CIV-00-XX-DR-C-30002 - GENERAL ARRANGEMENT
204-CIV-00-XX-DR-C-30003 - S278 SITE CLEARANCE
204-CIV-00-XX-DR-C-30004 - PAVEMENT CONSTRUCTION
204-CIV-00-XX-DR-C-30005 - HIGHWAY ADOPTION PLAN

S d rd N

1. T dr r d r Ar d E r dr d .
2. T dr d d.
3. A d m r r d r r .
4. A d r d r r d C.A. r r mm m r .

CIVIC ENGINEERS LIMITED

N d K

ALL WORKS SUBJECT TO MANCHESTER CITY COUNCIL HIGHWAYS SECTION 278 APPROVAL

17.12.24	P0	UPDATED FOLLOWING MCC CONSULTATION	HH	CK
1 .12.24	P08	UPDATED TO MCC COMMENTS	HH	CK
04.12.24	P07	UPDATED TO MCC COMMENTS	HH	CK
30.08.24	P0	UPDATED TO SUIT MCC S278 COMMENTS MCC DETAILS ADDED	CD	CK
27.02.24	P05	UPDATED TO SUIT MCC COMMENTS	G	CK
24.11.23	P04	ISSUED FOR TECHNICAL REVIEW	G	CK
2 .11.22	P03	DETAILS UPDATED/ADDED	CD	CK
18.10.22	P02	DETAILS UPDATED	CD	CK
12.0 .22	P01	ISSUED FOR INFORMATION	G	CK
D	R	D r	Dr	C d

Civic Engineers
MANCHESTER C r r W r , 77 D S r , M r, M1 2HG. T :01 1 228 757
LONDON R d W r, 33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS T r W r , U 02-01, G R d, L d , LS11 5 G. T : 0113 2025 130
GLASGOW Gr m C m r , 45 W N S , G , G1 2PT. T : 0141 370 182
. r . m

Pr
ONE VICTORIA
MANCHESTER

T
TYPICAL HIGHWAY DETAILS

S
INFORMATION

Pr	N m r	S	A1	D Cr d	Dr	C d	S
75	-02	1:10		12.0 .22	G	CK	----

Dr N m r
204-CIV-00-XX-DR-C-30005
R P0

ONE VICTORIA EAST MANHOLE SCHEDULE

PROPOSED MANHOLE SCHEDULE												
MANHOLE NAME	EASTING (m)	NORTHING (m)	COVER LEVEL (m)	SUMP LEVEL (m)	DEPTH (m)	SIZE (mm)	TYPE	ACCESS SIZE & COVER GRADE	PIPE IN DIAMETER (mm)	PIPE IN INVERT LEVEL (m)	PIPE OUT DIAMETER (mm)	PIPE OUT INVERT LEVEL (m)
C200	3837[illegible]5.14[illegible]	3[illegible]018.3[illegible]	28.350	2[illegible].831	1.51[illegible]	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 150 100	2[illegible].831 2[illegible].831 2[illegible].881	150	2[illegible].831
F200	3837[illegible]8.457	3[illegible]02[illegible].132	28.[illegible]00	27.723	1.177	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	100 100	27.773 27.773	150	27.723
F201	383800.547	3[illegible]031.885	28.[illegible]00	28.150	0.750	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	100 100 100	28.200 28.200 28.200	150	28.150
F202	383805.487	3[illegible]02[illegible].073	28.[illegible]00	27.535	1.3[illegible]5	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 150 150	27.535 27.535 27.535	150	27.535
F203	383807.[illegible]71	3[illegible]023.852	28.[illegible]00	27.4[illegible]5	1.435	450	PPIC	450[illegible]450 RECESSED, D400 DOUBLE SEALED	150 100 100	27.4[illegible]5 27.515 27.515	150	27.4[illegible]5
F204	383812.8[illegible]3	3[illegible]018.477	28.[illegible]00	27.407	1.4[illegible]3	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	100 100	27.457 27.457	150	27.407
F205	383805.303	3[illegible]013.348	28.[illegible]25	27.2[illegible]3	1.332	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 100 100 100 100	27.2[illegible]3 27.343 27.343 27.343 27.343	150	27.2[illegible]3
F20[illegible]	3837[illegible]5.[illegible]14	3[illegible]010.[illegible]4	28.[illegible]25	27.380	1.245	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	100 100 100	27.430 27.430 27.430	150	27.380
F207	3837[illegible].[illegible]35	3[illegible]013.8[illegible]7	28.[illegible]25	27.100	1.525	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 150 100	27.100 27.100 27.150	150	27.100
F208	3837[illegible].517	3[illegible]01[illegible].503	28.[illegible]25	27.340	1.285	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	100 100 100 100	27.3[illegible]0 27.3[illegible]0 27.3[illegible]0 27.3[illegible]0	150	27.340
S200	383804.[illegible]77	3[illegible]032.[illegible]32	28.[illegible]00	28.150	0.750	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 150 150	28.150 28.150 28.150	150	28.150
S201	383811.8[illegible]5	3[illegible]022.588	28.[illegible]00	27.332	1.5[illegible]8	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 150	27.332 27.332	150	27.332
S202	383810.704	3[illegible]018.530	28.[illegible]00	27.080	1.820	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 150	27.080 27.080	150	27.080
S203A	383801.210	3[illegible]02[illegible].7[illegible]8	28.[illegible]00	27.853	1.047	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 150	27.853 27.853	150	27.853
S203	383808.45[illegible]	3[illegible]017.011	28.[illegible]00	27.045	1.855	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150	27.045	150	27.045
S204	3837[illegible]7.[illegible]30	3[illegible]00[illegible].512	28.[illegible]25	27.[illegible]00	1.025	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 150	27.[illegible]00 27.[illegible]00	150	27.[illegible]00
S205	3837[illegible].282	3[illegible]01[illegible].0[illegible]2	28.350	2[illegible].8[illegible]5	1.485	1200	PCC - HYDROBRAKE	[illegible]00[illegible]00 RECESSED, A15 DOUBLE SEALED	150 150	2[illegible].8[illegible]5 2[illegible].8[illegible]5	150	2[illegible].8[illegible]5

ONE VICTORIA WEST MANHOLE SCHEDULE

PROPOSED MANHOLE SCHEDULE												
MANHOLE NAME	EASTING (m)	NORTHING (m)	COVER LEVEL (m)	SUMP LEVEL (m)	DEPTH (m)	SIZE (mm)	TYPE	ACCESS SIZE & COVER GRADE	PIPE IN DIAMETER (mm)	PIPE IN INVERT LEVEL (m)	PIPE OUT DIAMETER (mm)	PIPE OUT INVERT LEVEL (m)
C100	383785.175	3[illegible]021.540	28.700	2[illegible].770	1.[illegible]30	1200	PCC	[illegible]00[illegible]00 RECESSED, D400 DOUBLE SEALED	150 150 150 100	2[illegible].770 2[illegible].770 2[illegible].770 2[illegible].820	150	2[illegible].770
F100	3837[illegible]8.05[illegible]	3[illegible]028.0[illegible]2	28.800	28.050	0.750	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	100 100 100	28.100 28.100 28.100	150	28.050
F101	383771.4[illegible]2	3[illegible]030.3[illegible]5	28.800	28.150	0.[illegible]50	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	100 100	28.200 28.200	150	28.150
F102	38377[illegible].045	3[illegible]028.572	28.700	27.775	0.[illegible]25	450	PPIC	450[illegible]450 RECESSED, D400 DOUBLE SEALED	150 100	27.775 27.825	150	27.775
F103	383782.175	3[illegible]028.70[illegible]	28.700	27.[illegible]05	1.005	450	PPIC	450[illegible]450 RECESSED, D400 DOUBLE SEALED	150 100 100	27.[illegible]05 27.745 27.745	150	27.[illegible]05
F104	383781.815	3[illegible]017.815	28.700	2[illegible].8[illegible]5	1.805	450	PPIC	450[illegible]450 RECESSED, D400 DOUBLE SEALED	100	2[illegible].[illegible]45	150	2[illegible].8[illegible]5
S100	3837[illegible].882	3[illegible]02[illegible].357	28.800	28.000	0.800	450	PPIC	450[illegible]450 RECESSED, A15 DOUBLE SEALED	150 150	28.000 28.000	150	28.000
S101	383775.147	3[illegible]028.[illegible]32	28.700	27.470	1.230	450	PPIC	450[illegible]450 RECESSED, D400 DOUBLE SEALED	150 150 150	27.470 27.470 27.470	150	27.470
S102	38377[illegible].888	3[illegible]021.[illegible]4[illegible]	28.700	27.285	1.415	1200	PCC - HYDROBRAKE	[illegible]00[illegible]00 RECESSED, D400 DOUBLE SEALED	150 150	27.285 27.285	150	27.285

S[illegible]d[illegible]rd N[illegible]

1. T[illegible] dr[illegible] [illegible] [illegible] [illegible] [illegible] r[illegible]d [illegible] [illegible]. [illegible] [illegible] r[illegible]Ar[illegible] [illegible]d E[illegible]r[illegible] dr[illegible] [illegible]d [illegible] [illegible].
2. T[illegible] dr[illegible] [illegible] [illegible]d [illegible] [illegible]d.
3. A[illegible]m[illegible] [illegible]r[illegible] [illegible] [illegible]d [illegible] [illegible]r[illegible] [illegible].
4. A[illegible]d[illegible] [illegible] [illegible]d [illegible] r[illegible]r[illegible]d [illegible] C.A. [illegible]r[illegible] [illegible] [illegible]mm[illegible]m[illegible] [illegible] [illegible].

CIVIC ENGINEERS LIMITED

N[illegible]d K[illegible]

24.08.23	C03	UPDATED TO SUIT LATEST LAYOUT	[illegible]G	CK
21.08.23	C02	UPDATED TO SUIT LATEST LAYOUT	[illegible]G	CK
11.07.23	C01	ISSUED FOR CONSTRUCTION	[illegible]G	CK
08.12.22	P02	COVER DETAILS ADDED	CD	[illegible]G
25.11.22	P01	FOR INFORMATION	CD	CK
D[illegible]	R[illegible]	D[illegible]r[illegible]	Dr[illegible]	C[illegible]d

Civic Engineers
MANCHESTER [illegible]
LONDON [illegible]
LEEDS [illegible]
GLASGOW [illegible]
[illegible].[illegible]r[illegible]m

Pr[illegible]

ONE VICTORIA
MANCHESTER

T[illegible]

MANHOLE SCHEDULE

S[illegible]

CONSTRUCTION

Pr[illegible]N[illegible]r	S[illegible] A1	D[illegible] Cr[illegible]d	Dr[illegible]	C[illegible]d	S[illegible]
75[illegible]-02	NTS	25.11.22	CD	CK	----

Dr[illegible] N[illegible]r

204-CIV-00-XX-DR-C-32001

R[illegible]

C03

S d rd N

1. T dr r d r Ar d E r dr d .
2. T dr d d.
3. A d m r r d r r .
4. A d r d r r d C.A. r r mm m r .

CIVIC ENGINEERS LIMITED

N d K

- EXISTING PUBLIC COMBINED SEWER
- EXISTING CONNECTION INTO PUBLIC COMBINED SEWER TO BE RETAINED
- EXISTING PUBLIC COMBINED SEWER TO BE ABANDONED
- EXISTING HIGHWAY GULLY WITH NEW CONNECTION. EXISTING CONNECTION ABANDONED
- PROPOSED PUBLIC COMBINED SEWER DIVERSION
- PROPOSED COMBINED PLOT CONNECTION
- PROPOSED S185 WORKS BOUNDARY

ALL CONNECTIONS TO EXISTING SEWER BELOW BRESLYN STREET TO BE RETAINED

ALL PRIVATE DRAINAGE SHOWN INDICATIVELY FOR CO-ORDINATION PURPOSES. NEW CONNECTIONS TO PUBLIC SEWER WILL BE SUBJECT TO A SEPARATE S10 APPLICATION

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS. DRG NO: 41020MCLS-01 RECEIVED ON 07.0 .22

ALL SEWERAGE WORKS TO COMPLY WITH SEWERAGE SECTOR GUIDANCE APPENDIX C "THE DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS OFFERED FOR ADOPTION" (THE DCG FOR SEWERAGE)

EXACT LOCATION OF EXISTING PUBLIC COMBINED SEWER IN BRESLYN STREET TO BE CONFIRMED. ASSUMED ROUTE SHOWN. ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL WORKS SUBJECT TO UNITED UTILITIES S185 APPROVAL

BLOCK A
SSL: 28.650

BLOCK B
SSL: 28.725

CWD01 1.8m
CL: 28.275
IL: 25.017 450x450
IL: 24.882 525

EXG

EXISTING GULLY CONNECTION TO BE ABANDONED NEW CONNECTION RE UIRED TO DIVERTED SEWER.

NEW COMBINED CONNECTION FROM PROPOSED BUILDING

EXISTING COMBINED WATER SEWER 450 450 BRICK

NOTE:
SHOULD THE EXISTING BRICK SEWER BE DAMAGED WHEN CUTTING OPEN THE CHANNEL THEN THE SEWER WILL NEED TO BE REPLACED WITH CONCRETE

EXISTING GULLY CONNECTION TO BE ABANDONED NEW CONNECTION RE UIRED TO DIVERTED SEWER.

NEW COMBINED CONNECTION FROM PROPOSED BUILDING

PROPOSED COMBINED WATER SEWER 525 CONC AT 1:30

EXISTING COMBINED WATER SEWER 450X450 BRICK TO BE ABANDONED

EXISTING SERVICES PRESENT IN FOOTWAY ADJACENT TO PROPOSED MANHOLE LOCATION. CURRENT LOCATION COORDINATED TO GPR SURVEY, POSITION MAY BE ADJUSTED ONSITE TO SUIT TRUE ALIGNMENT OF SERVICES

CWD04 1.2m
CL: 28.5 4
IL: 24.412

EXISTING PUBLIC COMBINED WATER SEWER 3 CONC AT 1:83

EXISTING CONNECTION POINT OF SEWER TO BE RETAINED TO MITIGATE STRUCTURAL ISSUES WITH EXISTING BRICK SEWER. CCTV SURVEY FOOTAGE SHOWS SOFFIT LEVEL CONECTION.
IL: 24.4 6 500 S . SEWER
IL: 24.057 3

CWD02 2.4m
CL: 28.700
IL: 24.535 525
IL:24.121 3

EXISTING PUBLIC COMBINED WATER SEWER 3 CONC AT 1:83

E . MH IC 7005
CL: 28.710
IL: 24.410

Ex. UU MH
HEAD OF SYSTEM UNABLE TO BE LOCATED ON SITE, ASSUMED BURIED

SURVEY ABANDONED DUE TO BLOCKAGE AT 31.25m

03.12.23	C01	FOR CONSTRUCTION	HH	CK
D	R	D r	Dr	C d

Civic Engineers

MANCHESTER C r r W r , 77 D S r , M r, M1 2HG. T : 01 1 228 757
LONDON R d W r, 33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS T r W r , U 02-01, G R d, L d , LS11 5 G. T : 0113 2025 130
GLASGOW Gr m C m r , 45 W N S , G , G1 2PT. T : 0141 370 182

. r . m

Pr

ONE VICTORIA
GREAT DUCIE STREET

T

SECTION 185 AGREEMENT
DRAINAGE GENERAL ARRAGEMENT

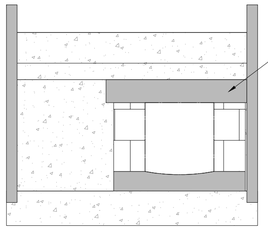
S

CONSTRUCTION

Pr N m r	S A1	D Cr d	Dr	C d	S
75 -02	1:100	MAY 23	G	CK	----

Dr N m r: 204-CIV-00-XX-DR-D-3101

R: C01

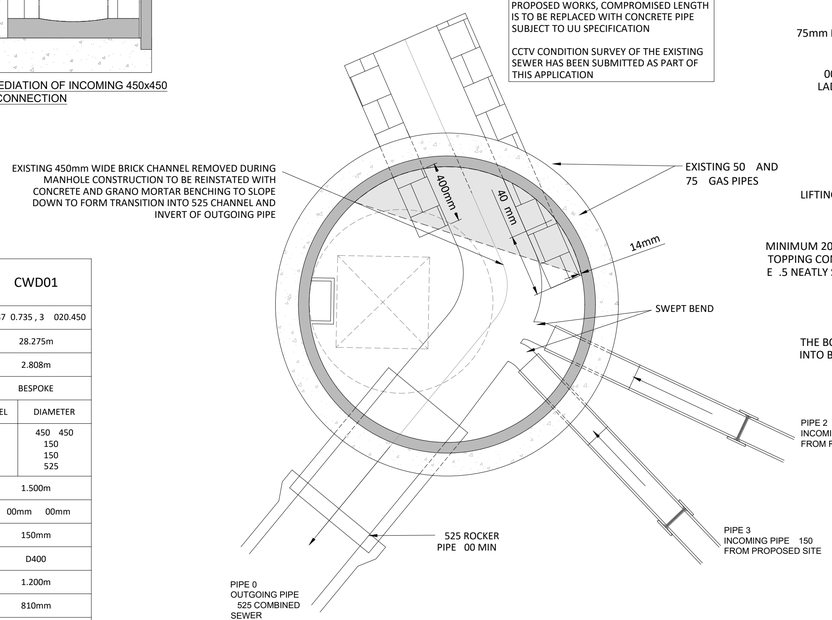


SECTION C-C - REMEDIATION OF INCOMING 450x450 CONNECTION

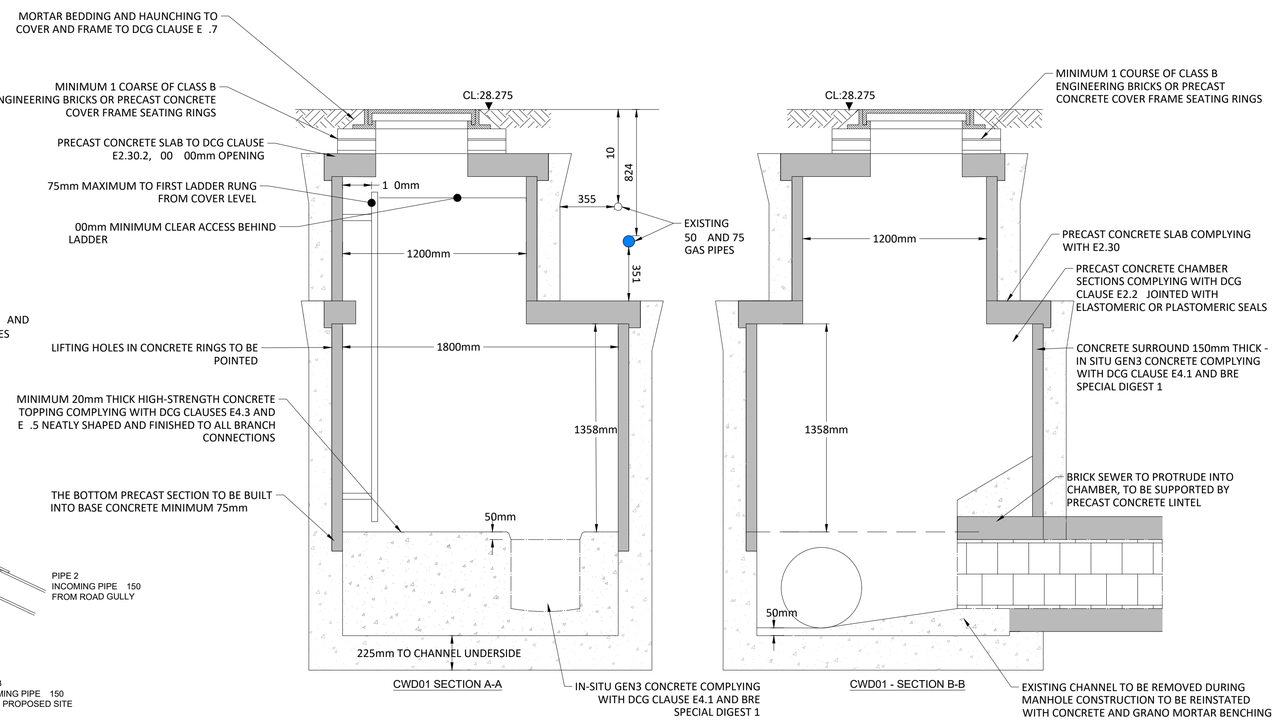
BRICK SEWER TO PROTRUDE INTO CHAMBER, TO BE SUPPORTED BY PRECAST CONCRETE LINTEL

NOTE:
IF 450 450 BRICK SEWER UPSTREAM BECOMES DAMAGED AS A RESULT OF THE PROPOSED WORKS, COMPROMISED LENGTH IS TO BE REPLACED WITH CONCRETE PIPE SUBJECT TO UU SPECIFICATION

CCTV CONDITION SURVEY OF THE EXISTING SEWER HAS BEEN SUBMITTED AS PART OF THIS APPLICATION



MH REFERENCE		CWD01
MANHOLE COORDINATES		3837 0.735 , 3 020.450
MANHOLE COVER LEVEL		28.275m
DEPTH TO PIPE SOFFIT		2.808m
MANHOLE TYPE		BESPOKE
PIPE REFERENCE	INVERT LEVEL	DIAMETER
1 2 3 0	25.017m 25.317m 25.317m 24.882m	450 450 150 150 525
INTERNAL CHAMBER SI E		1.500m
MIN CLEAR OPENING SI E		00mm 00mm
COVER DEPTH		150mm
COVER SPEC		D400
CHAMBER SHAFT SI E		1.200m
CHAMBER SHAFT DEPTH		810mm
RAILINGS		NO
SAFETY CHAINS		NO
ACCESS TYPE		MAN ENTRY
HOLE SI E IN COVER SLAB		00mm 00mm

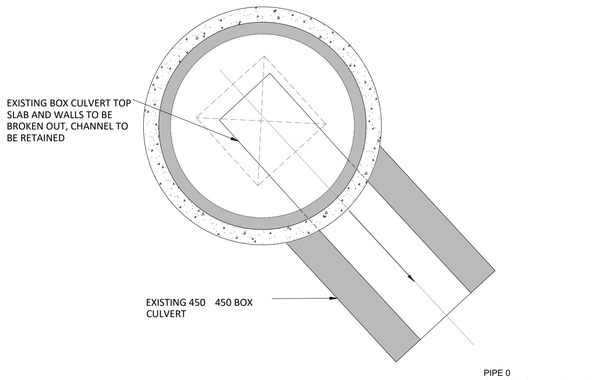


CWD01
1200 SHAFT CONNECTING TO 1800 CHAMBER

STANDARD NOTES

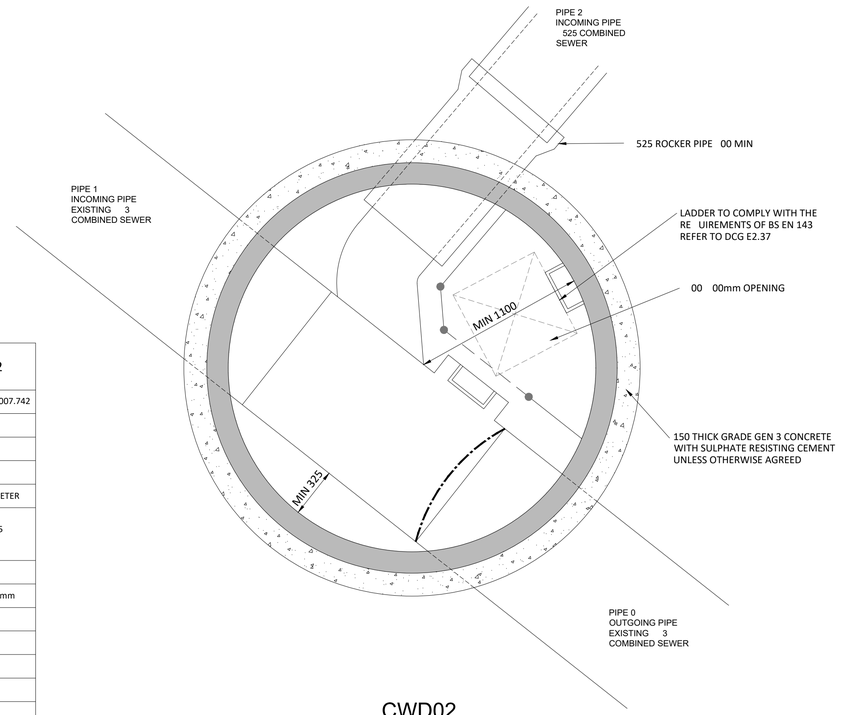
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT S AND ENGINEER S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

CIVIC ENGINEERS LIMITED



MH REFERENCE		CWD04
MANHOLE COORDINATES		383781.480 , 3 045.425
MANHOLE COVER LEVEL		28.5 4m
DEPTH TO PIPE SOFFIT		3.534m
MANHOLE TYPE		TYPE 1
PIPE REFERENCE	INVERT LEVEL	DIAMETER
0	24.412m	450 450
INTERNAL CHAMBER SI E		1.200m
MIN CLEAR OPENING SI E		00mm 00mm
COVER DEPTH		150mm
COVER SPEC		D400
CHAMBER SHAFT SI E		N/A
CHAMBER SHAFT DEPTH		N/A
RAILINGS		NO
SAFETY CHAINS		NO
ACCESS TYPE		NON MAN ENTRY
HOLE SI E IN COVER SLAB		00mm 00mm

CWD04 non man entr
1200



MH REFERENCE		CWD02
MANHOLE COORDINATES		38377 . 0 , 3 007.742
MANHOLE COVER LEVEL		28.700m
DEPTH TO PIPE SOFFIT		3. 40m
MANHOLE TYPE		TYPE 2
PIPE REFERENCE	INVERT LEVEL	DIAMETER
1 2 0	24.121m 24.535m 24.121m	3 525 3
INTERNAL CHAMBER SI E		2.400m
MIN CLEAR OPENING SI E		00mm 00mm
COVER DEPTH		150mm
COVER SPEC		D400
CHAMBER SHAFT SI E		N/A
CHAMBER SHAFT DEPTH		N/A
RAILINGS		YES
SAFETY CHAINS		YES
ACCESS TYPE		LADDER
HOLE SI E IN COVER SLAB		00mm 00mm

CWD02
2400

ALL PRIVATE DRAINAGE SHOWN INDICATIVELY FOR CO-ORDINATION PURPOSES. NEW CONNECTIONS TO PUBLIC SEWER WILL BE SUBJECT TO A SEPARATE S10 APPLICATION

ALL WORKS SUBJECT TO UNITED UTILITIES S185 APPROVAL

DATE	REV	DESCRIPTION	DRAWN	CHKD
03.12.24	C01	FOR CONSTRUCTION	HH	CK

Civic Engineers
MANCHESTER C r r W r , 77 D S r , M r, M1 2HG. T : 01 1 228 757
LONDON R d W r , 33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS 1 S M S r , W r L , L d , LS11 5WE. T : 0113 2025 130
GLASGOW 35 V r S r , G , G1 1TN. T : 0141 370 182
. r . m

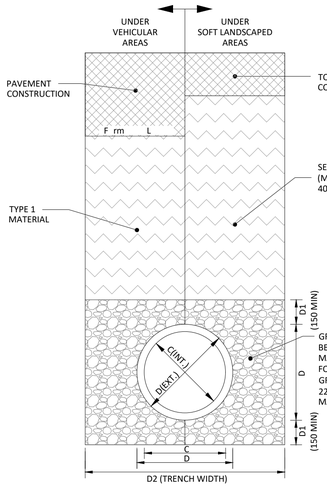
PROJECT

ONE VICTORIA
GREAT DUCIE STREET

TITLE

SECTION 185 AGREEMENT
PROPOSED MANHOLE DETAILS

DRAWING STATUS				STATUS CODE
CONSTRUCTION				-
CE PROJECT N .	SCALE A1	DATE CREATED	DRAWN	CHECKED
75 -02	1:20	MAY 23	G	CK
DRAWING N .				REV
204-CIV-00-XX-DR-D-3103				C01



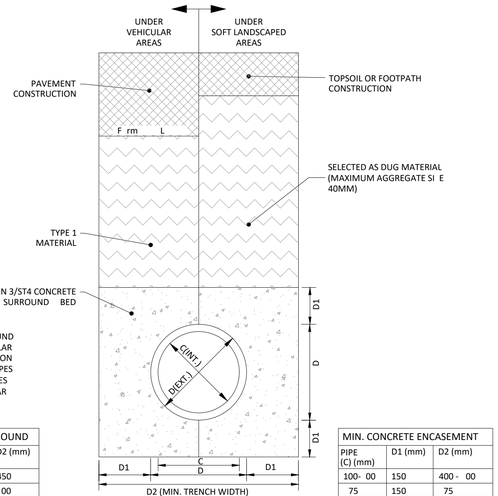
TO BE USED UNDER:

1. VEHICULAR AREAS WHERE COVER TO PIPE SOFFIT IS GREATER THAN 00mm.
2. ALL SOFT LANDSCAPE AREAS WHERE COVER TO PIPE SOFFIT IS GREATER THAN 00mm.

NOTE:
ALL PIPEWORK SHALL HAVE FLEXIBLE COUPLINGS

MIN. GRANULAR SURROUND		
PIPE (C) (mm)	D1 (mm)	D2 (mm)
100	150	450
150	150	00
225	150	700
300	150	850
375	200	1050
450	200	1150
525	200	1200
00	200	1350
75	200	1450
750	200	1500

CLASS S PIPE BEDDING SURROUND (TO BE USED FOR PLASTIC, VITRIFIED CLAY CONCRETE PIPEWORK)



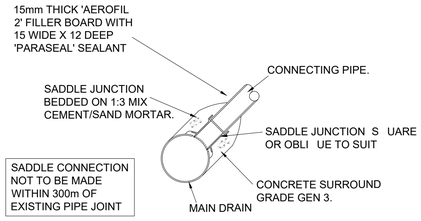
TO BE USED UNDER:

1. VEHICULAR AREAS WHERE COVER TO PIPE SOFFIT IS E UAL TO OR LESS THAN 00mm.
2. ALL SOFT LANDSCAPE AREAS WHERE COVER TO PIPE SOFFIT IS E UAL TO OR LESS THAN 00mm.

NOTE:
ALL PIPEWORK WITH CLASS (GEN 3/ST4) CONCRETE SURROUND SHALL HAVE FLEXIBLE COUPLINGS WITH FLEXI-BOARDS ON ALL JOINTS (REFER TO DETAIL D8)

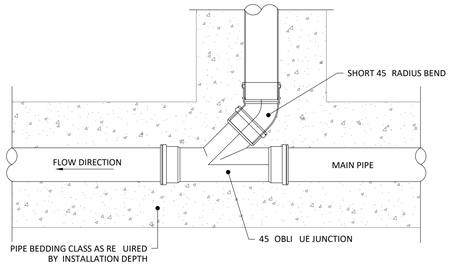
MIN. CONCRETE ENCASEMENT		
PIPE (C) (mm)	D1 (mm)	D2 (mm)
100- 00	150	400 - 00
75	150	75
750	150	1100
825	150	1125
00	150	1200
75	150	1275
1050	150	1350
1200	170	1540
1350	180	1710
1500	200	1 00
1 50	220	20 0

CLASS PIPE BEDDING SURROUND (TO BE USED FOR PLASTIC, VITRIFIED CLAY CONCRETE PIPEWORK)

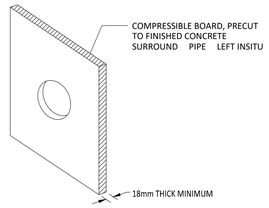


SADDLE CONNECTION DETAIL

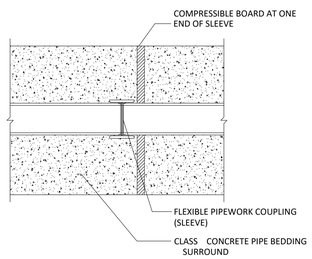
DIAMETER OF MAIN DRAIN TO BE A MINIMUM OF DOUBLE THE SIZE OF THE CONNECTING PIPE. IN ALL OTHER CASES A PRE-FORMED JUNCTION IS TO BE USED.



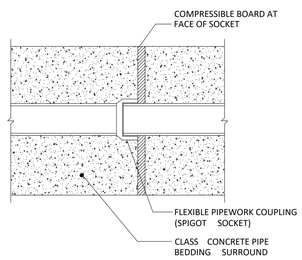
TYPICAL 45 PIPE JUNCTION CONNECTION DETAIL



FLEXIBLE JOINT DETAIL FOR CONCRETE ENCASED SPIGOT SOCKET JOINTED PIPES



FLEXIBLE JOINT DETAIL FOR CONCRETE ENCASED SLEEVE JOINTED PIPES



FLEXIBLE JOINT DETAIL FOR CONCRETE ENCASED PIPES (TO B.S. 1142)

STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT S AND ENGINEER S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

CIVIC ENGINEERS LIMITED

ALL PRIVATE DRAINAGE SHOWN INDICATIVELY FOR CO-ORDINATION PURPOSES. NEW CONNECTIONS TO PUBLIC SEWER WILL BE SUBJECT TO A SEPARATE S10 APPLICATION

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS. DRG NO: 41020MCLS-01 RECEIVED ON 07.0 .22

ALL SEWERAGE WORKS TO COMPLY WITH SEWERAGE SECTOR GUIDANCE APPENDIX C "THE DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS OFFERED FOR ADOPTION" (THE DCG FOR SEWERAGE)

EXACT LOCATION OF EXISTING PUBLIC COMBINED SEWER IN BRESLYN STREET TO BE CONFIRMED. ASSUMED ROUTE SHOWN.
ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL WORKS SUBJECT TO UNITED UTILITIES S185 APPROVAL

DATE	REV	DESCRIPTION	DRAWN	CHKD
03.12.24	C01	FOR CONSTRUCTION	HH	CK

Civic Engineers
MANCHESTER C r r W r , 77 D S r , M r, M1 2HG. T : 01 1 228 757
LONDON R d W r, 33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS 1 S M S r , W r L , L d , LS11 5WE. T : 0113 2025 130
GLASGOW 35 V r S r , G , G1 1TN. T : 0141 370 182
. r . m

PROJECT
ONE VICTORIA
GREAT DUCIE STREET

TITLE
SECTION 185 AGREEMENT
PROPOSED DRAINAGE DETAILS

DRAWING STATUS	STATUS CODE
CONSTRUCTION	-

CE PROJECT N .	SCALE A1	DATE CREATED	DRAWN	CHECKED
75 -02	1:20	MAY 23	G	CK

DRAWING N . 204-CIV-00-XX-DR-D-3104
REV C01

BLOCK A
SSL: 28.650

BLOCK B
SSL: 28.725

CWD01 1.8m
CL: 28.275
IL: 25.017 450x450
IL: 24.882 525

EXG

EXISTING COMBINED WATER SEWER 450 450 BRICK

EXISTING COMBINED WATER SEWER 450X450 BRICK TO BE ABANDONED

PROPOSED COMBINED WATER SEWER 525 CONC AT 1:30

BRESLYN STREET

SEWER ASSUMED INFILLED WITH CONCRETE. TO BE CONFIRMED DURING MIRABEL STREET SEWER REPAIR WORKS

EXISTING BRICK PUBLIC COMBINED WATER SEWER 525 X 450mm C.1:83 GRADIENT

EXISTING UU SEWER UNDER MIRABEL STREET CONFIRMED TO BE 525 X 450mm FROM RECENT LANES FOR DRAINS SURVEY

NOTE:
SHOULD THE EXISTING BRICK SEWER BE DAMAGED WHEN CUTTING OPEN THE CHANNEL THEN THE SEWER WILL NEED TO BE REPLACED WITH CONCRETE

PROPOSED 00mm DIAMETER CONCRETE PIPE

ASSUMED EXTENT OF EXISTING CONCRETE BLOCKAGE

CWD03 1.8m
CL: 28.440
IL: 23 63
CL AND IL INTERPOLATED BASED ON SURVEY INFORMATION. ACTUAL LEVELS TO SUIT FINISHED ROAD LEVEL AND SEWER INVERT. NEW 1800mm DIAMETER CHAMBER CONSTRUCTED OVER LINE OF EXISTING BRICK SEWER

Ex. MH IC 7007
CL 28.36
IL 23.76

CWD02 2.4m
CL: 28.700
IL: 24.535 525
IL:24.121 3

MANHOLE AND UPSTREAM BRESLYN STREET WORKS TO BE CONSTRUCTED AS PART OF S185 BRESLYN STREET SEWER DIVERSION

EXISTING PUBLIC COMBINED WATER SEWER 3 CONC AT 1:83

E . MH IC 7005
CL: 28.710
IL: 24.410

MIRABEL STREET

17
5
14
16
18
20

S d rd N

1. T dr r d r Ar d E r dr d .
2. T dr d d.
3. A d m r r d r r .
4. A d r d r r d C.A. r r mm m r .

CIVIC ENGINEERS LIMITED

N d K

EXISTING PUBLIC COMBINED SEWER

EXISTING CONNECTION INTO PUBLIC COMBINED SEWER TO BE RETAINED

EXISTING PUBLIC COMBINED SEWER TO BE ABANDONED

EXISTING HIGHWAY GULLY WITH NEW CONNECTION. EXISTING CONNECTION ABANDONED

PROPOSED PUBLIC COMBINED SEWER DIVERSION

PROPOSED COMBINED PLOT CONNECTION

ALL CONNECTIONS TO EXISTING SEWER BELOW BRESLYN STREET TO BE RETAINED

ALL PRIVATE DRAINAGE SHOWN INDICATIVELY FOR CO-ORDINATION PURPOSES. NEW CONNECTIONS TO PUBLIC SEWER WILL BE SUBJECT TO A SEPARATE S10 APPLICATION

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS. DRG NO: 41020MCLS-01 RECEIVED ON 07.0 .22

ALL SEWERAGE WORKS TO COMPLY WITH SEWERAGE SECTOR GUIDANCE APPENDIX C "THE DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS OFFERED FOR ADOPTION" (THE DCG FOR SEWERAGE)

EXACT LOCATION OF EXISTING PUBLIC COMBINED SEWER IN BRESLYN STREET TO BE CONFIRMED. ASSUMED ROUTE SHOWN. ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL WORKS SUBJECT TO UNITED UTILITIES APPROVAL

NO WORKS TO THE PUBLIC SEWER TO BE UNDERTAKEN WITHOUT AGREEMENT FROM UNITED UTILITIES

0 .03.25	C01	FOR CONSTRUCTION	HH	CK
21.11.24	P01	FOR APPROVAL	CK	CK
D	R	D r	Dr	C d

Civic Engineers

MANCHESTER C r r W r , 77 D S r , M r, M1 2HG. T : 01 1 228 757
LONDON R d W r , 33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS T rW r , U 02-01, G R d, L d , LS11 5 G. T : 0113 2025 130
GLASGOW Gr m C m r , 45 W N S , G , G1 2PT. T : 0141 370 182
. r . m

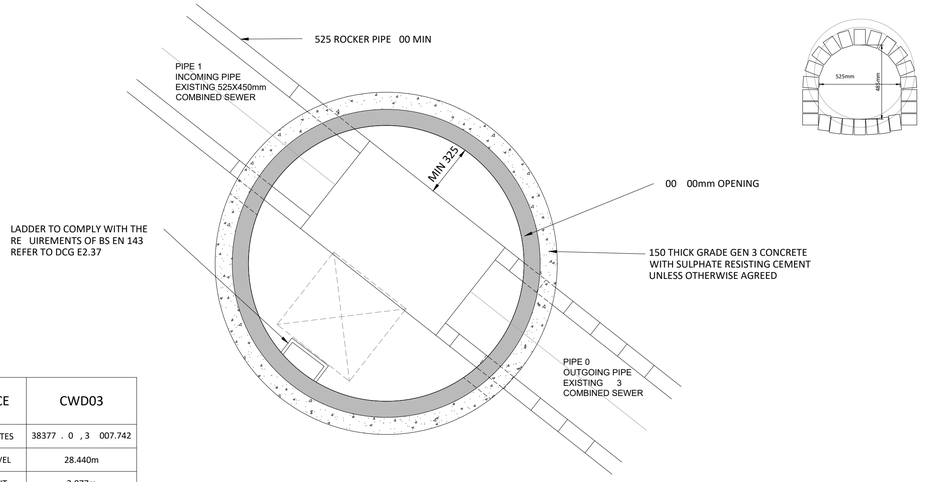
Pr
ONE VICTORIA
GREAT DUCIE STREET

T
MIRABLE STREET SEWER
EMERGENCY REPAIR GA

S
CONSTRUCTION

Pr N m r	S A1	D Cr d	Dr	C d	S
75 -02	1:100	NOV 24	CK	CK	----

Dr N m r: 204-CIV-00-XX-DR-D-3110 | R: P01



CWD03
1800

MH REFERENCE	CWD03	
MANHOLE COORDINATES	38377 . 0 , 3 007.742	
MANHOLE COVER LEVEL	28.440m	
DEPTH TO PIPE SOFFIT	3.877m	
MANHOLE TYPE	TYPE A	
	INVERT LEVEL	DIMENSIONS
	23. 3m 23. 3m	525 525 450
INTERNAL CHAMBER SI E	1.800m	
MIN CLEAR OPENING SI E	00mm 00mm	
COVER DEPTH	150mm	
COVER SPEC	D400	
CHAMBER SHAFT SI E	N/A	
CHAMBER SHAFT DEPTH	N/A	
	YES	
SAFETY CHAINS	YES	
ACCESS TYPE	LADDER	
HOLE SI E IN COVER SLAB	00mm 00mm	

STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT S AND ENGINEER S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

CIVIC ENGINEERS LIMITED

DATE	REV	DESCRIPTION	DRAWN	CHKD
0 .03.25	C01	FOR CONSTRUCTION	CK	CK

Civic Engineers

MANCHESTER C r r W r , 77 D S r , M r, M1 2HG. T : 01 1 228 757
LONDON R d W r , 33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS 1 5 M S r , W r L , L d , LS11 5WE. T : 0113 2025 130
GLASGOW 35 V r S r , G , G1 1TN. T : 0141 370 182

. r . m

PROJECT
ONE VICTORIA
GREAT DUCIE STREET

TITLE
MIRABEL STREET SEWER
EMERGENCY REPAIR MANHOLE DETAIL

DRAWING STATUS	STATUS CODE
CONSTRUCTION	-

CE PROJECT N .	SCALE A1	DATE CREATED	DRAWN	CHECKED
75 -02	1:20	MAR 24	CK	CK

DRAWING N .	REV
204-CIV-00-XX-DR-D-3111	C01

CAR CLUB

6.0m

DIAG 1028.4
PROPOSED CAR CLUB PARKING BAY INTEGRATED INTO EXISTING LOADING BAY. WIDTH MAINTAINED AS EXISTING.

DIAG. 1018.1
PROPOSED YELLOW LINING END BAR

EXISTING DOUBLE YELLOW LINES TO BE RETAINED

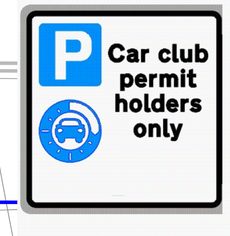
EXISTING DOUBLE YELLOW LINES AND KERB BLIPS WITHIN AREA OF PROPOSED CAR CLUB BAY TO BE REMOVED

PROPOSED CAR CLUB SIGN. MOUNTING FROM BOTTOM OF SIGN TO BE 2.4m (SEE SIGN DETAILS ON RIGHT OF DRAWING)

DIAG. 1018.1
PROPOSED YELLOW LINING END BAR

WORLDWIDE FANCY GOODS

Great D cie Street



Sign	Ref.	Car Club	x-height	25.0
Letter colour		BLACK	SIGN FACE	
Background		WHITE	Width	395mm
Border		BLACK	Height	395mm
Material		Class R3B Microprismatic	Area	0.15m²

PROPOSED EDGING TO DELINEATE ADOPTION EXTENT

RAILWAY VIADUCT

ILLUMINATED PASSAGE SERVICE ZONE

EXISTING FOOTWAY GULLY TO BE REMOVED AND CONNECTION CAPPED

PROPOSED KERBS TIE BACK TO EXISTING

DIAG 1018.1
DOUBLE YELLOW LINES TO BE REINSTATED

PROPOSED EDGING TO DELINEATE ADOPTION EXTENT

PROPOSED FOOTWAY BEYOND EXISTING HIGHWAY BOUNDARY TO BE OFFERED FOR ADOPTION

1.1m

3.1m

0.8m

Bres n Street

EXISTING UTILITY COVER TO BE RESET TO SUIT PROPOSED FOOTWAY LEVELS

DIAG 1018.1
DOUBLE YELLOW LINES TO BE REINSTATED

EXISTING FOOTWAY GULLY TO BE REMOVED AND CONNECTION CAPPED

BRESLYN STREET TO BE REINSTATED TO EXISTING LAYOUT AND LEVEL FOLLOWING CONSTRUCTION PHASE.

R1.0m

1.2m

3.7m

0.8m

DIAG 10 2
ROAD HUMP MARKINGS TO BE REINSTATED

DIAG 1018.1
DOUBLE YELLOW LINES TO BE REINSTATED

PROPOSED EDGING TO DELINEATE ADOPTION EXTENT

PROPOSED FOOTWAY BEYOND EXISTING HIGHWAY BOUNDARY TO BE OFFERED FOR ADOPTION

EXISTING UTILITY COVER TO BE RESET TO SUIT PROPOSED FOOTWAY LEVELS

PROPOSED KERBS TIE BACK TO EXISTING

PROPOSED BELLMOUTH TO ALLOW FOR DEVELOPMENT CAR PARK ACCESS

DIAG 100 A
EDGE OF CARRIAGEWAY MARKING TO BE REINSTATED

EXISTING TREE / TREE PIT TO BE REMOVED

R4.0m

R3.0m

DIAG 10 2
ROAD HUMP MARKINGS TO BE REINSTATED

DIAG 1018.1
DOUBLE YELLOW LINES TO BE REINSTATED

DIAG 1018.1
DOUBLE YELLOW LINES TO BE REINSTATED

R2.0m

R2.0m

Mira e Street

PROPOSED TACTILE PAVING INSTALLED TO MATCH WIDTH OF EXISTING TACTILE PAVING ON OPPOSITE SIDE OF JUNCTION. EXISTING DROPPED KERB RETAINED

DIAG 1003A GIVE WAY MARKING TO BE REINSTATED

DIAG 1004
CENTRELINE TO BE REINSTATED

EXISTING TACTILE PAVING TO BE RETAINED

DIAG 1017
SINGLE YELLOW LINE TO BE REINSTATED

DIAG 10 2
ROAD HUMP MARKINGS TO BE REINSTATED

EXISTING UTILITY COVER TO BE RESET TO SUIT PROPOSED FOOTWAY LEVELS

TRIAL PITS TO BE UNDERTAKEN TO DETERMINE UTILITY DEPTHS AT THE PROPOSED CAR PARK ACCESS. IF ANY ISSUES ARE IDENTIFIED, PROPOSED MOVING/ LOWERING OF SERVICES TO BE IN AGREEMENT WITH THE RELEVANT ASSET OWNERS

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH S278 PLANS:

204-CIV-00-XX-DR-C-20001 - PROPOSED LEVELS
204-CIV-00-XX-DR-C-30003 - S278 SITE CLEARANCE
204-CIV-00-XX-DR-C-30004 - PAVEMENT CONSTRUCTION
204-CIV-00-XX-DR-C-30005 - HIGHWAY ADOPTION PLAN
204-CIV-00-XX-DR-C-31010 - PAVEMENT DETAILS

PROPOSED KERBS TIE BACK TO EXISTING

EXISTING TREE / TREE PIT TO BE REMOVED

PROPOSED ROAD MARKING TO TIE IN TO EXISTING

S d rd N

1. T dr r d r Ar d E r dr d .
2. T dr d d.
3. A d m r r d r r .
4. A d r d r r d C.A. r r mm m r .

CIVIC ENGINEERS LIMITED

N d K

1. ALL EXISTING FOOTWAY LEVELS TO BE MAINTAINED CLOSE TO EXISTING TO AVOID DISRUPTION TO EXISTING SERVICES OR COVER LEVELS

KEY

- EXISTING HIGHWAY BOUNDARY.
- PROPOSED DEVELOPMENT SITE BOUNDARY.
- PROPOSED S278 CARRIAGEWAY WORKS AREA. REFER TO DRAWINGS 75 -02-CIV-XX-D-C-30004 AND 31010 FOR DETAILS.
- PROPOSED S278 FOOTWAY WORKS AREA. REFER TO DRAWINGS 75 -02-CIV-XX-D-C-30004 AND 31010 FOR DETAILS.
- PROPOSED EXTENT OF RAISED TABLE.
- G EXISTING HIGHWAY GULLY RETAINED.
- FG EXISTING FOOTWAY GULLY REMOVED.
- FG EXISTING FOOTWAY GULLY RETAINED.
- PROPOSED UNCONTROLLED CROSSING POINT TACTILE PAVING.
- LP EXISTING LIGHTING COLUMN RETAINED.
- LP EXISTING LIGHTING COLUMN TO BE RELOCATED.
- LP PROPOSED NEW LIGHTING COLUMN LOCATION
- SP PROPOSED NEW SIGNAGE COLUMN
- ANY EXISTING KERBS WITHIN SITE HOARDING DAMAGED DURING CONSTRUCTION TO BE REPLACED WITH LIKE FOR LIKE KERB UNITS TO MATCH EXISTING LEVELS.
- PROPOSED BULLNOSED KERB (25mm UPSTAND).
- PROPOSED BULLNOSED DROP KERB INCLUDING TRANSITION (mm UPSTAND)
- PROPOSED HALF BATTERED KERB (100mm UPSTAND)
- PROPOSED EF EDGING LAID FLUSH
- EXISTING PCC DRAINAGE CHANNEL TO BE RETAINED
- PROPOSED SEWER DIVERSION - COMBINED CHAMBER
- PROPOSED SEWER DIVERSION - CONCRETE PIPE

ALL WORKS SUBJECT TO MANCHESTER CITY COUNCIL HIGHWAYS SECTION 278 APPROVAL

0 .01.25	P12	UPDATED FOLLOWING MCC CONSULTATION	HH	CK
08.01.25	P11	UPDATED TO MCC COMMENTS	HH	CK
17.12.24	P10	UPDATED FOLLOWING MCC CONSULTATION	HH	CK
1 .12.24	P0	CAR CLUB BAY RELOCATED	HH	CK
04.12.24	P08	UPDATED TO SUIT S278 COMMENTS	HH	CK
30.08.24	P07	UPDATED TO SUIT RSA AND S278 COMMENTS	HH	CK
27.02.24	P0	UPDATED TO SUIT MCC COMMENTS	G	CK
24.11.23	P05	ISSUED FOR TECHNICAL REVIEW	G	CK
2 .11.22	P04	ISSUED FOR INFORMATION	G	CK
18.10.22	P03	ISSUED FOR INFORMATION	CD	RW
12.0 .22	P02	ISSUED FOR INFORMATION	G	CK
04.07.22	P01	FOR INFORMATION	CK	CK
D	R	D r	Dr	C d

Civic Engineers

MANCHESTER C r r W r ,77 D S r , M r, M1 2HG. T :01 1 228 757
LONDON R d W r ,33 M S r , L d SE1 2AX. T :020 7253 2 77
LEEDS T r W r ,U 02-01, G R G L d ,LS11 5 G. T :0113 2025 130
GLASGOW Gr m C m r ,45 W N S ,G ,G1 2PT. T :0141 370 182

. r . m

Pr

ONE VICTORIA
MANCHESTER

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S278 HIGHWAY WORKS
GENERAL ARRANGEMENT

S

INFORMATION

Pr	N m r	S	A1	D Cr d	Dr	C d	S
75	-02	1:100		04/07/22	CFK	CFK	----

Dr N m r

204-CIV-00-XX-DR-C-30002

R P12

Great D cie Street

WORLDWIDE FANCY GOODS

RAILWAY VIADUCT

ILLUMINATED PASSAGE SERVICE ZONE

Bres n Street

BRESLYN STREET

MIRABEL STREET

Mira e Street

EXISTING UTILITY COVER TO BE RESET WHERE RE UIRED TO SUIT FOOTWAY LEVELS.

EXISTING STREET LIGHTING TO BE RELOCATED AWAY FROM PROPOSED RETAIL ACCESS, SUBJECT TO MCC STREET LIGHTING TEAM APPROVAL

EXISTING FOOTWAY GULLY TO BE REMOVED AND CONNECTION CAPPED

EXISTING UTILITY COVER TO BE RESET TO SUIT PROPOSED FOOTWAY LEVELS

EXISTING FOOTWAY GULLY TO BE REMOVED AND CONNECTION CAPPED

EXISTING UTILITY COVER TO BE RESET TO SUIT PROPOSED FOOTWAY LEVELS

EXISTING TREE / TREE PIT TO BE REMOVED

EXISTING UTILITY COVER TO BE RESET TO SUIT PROPOSED FOOTWAY LEVELS

EXISTING TREE / TREE PIT TO BE REMOVED

TRIAL PITS TO BE UNDERTAKEN TO DETERMINE UTILITY DEPTHS AT THE PROPOSED CAR PARK ACCESS. IF ANY ISSUES ARE IDENTIFIED, PROPOSED MOVING/ LOWERING OF SERVICES TO BE IN AGREEMENT WITH THE RELEVANT ASSET OWNERS

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH S278 PLANS:

204-CIV-00-XX-DR-C-20001 - PROPOSED LEVELS
204-CIV-00-XX-DR-C-30002 - GENERAL ARRANGEMENT
204-CIV-00-XX-DR-C-30004 - PAVEMENT CONSTRUCTION
204-CIV-00-XX-DR-C-30005 - HIGHWAY ADOPTION PLAN
204-CIV-00-XX-DR-C-31010 - PAVEMENT DETAILS

S d rd N

1. T dr r d r Ar d E r dr d .
2. T dr d d.
3. A d m r r d r r .
4. A d r d r r d C.A. r r mm m r .

CIVIC ENGINEERS LIMITED

N d K

1. ALL EXISTING FOOTWAY LEVELS TO BE MAINTAINED CLOSE TO EXISTING TO AVOID DISRUPTION TO EXISTING SERVICES OR COVER LEVELS

KEY

- EXISTING HIGHWAY BOUNDARY.
- PROPOSED DEVELOPMENT SITE BOUNDARY.
- G EXISTING HIGHWAY GULLY RETAINED.
- FG EXISTING FOOTWAY GULLY REMOVED.
- FG EXISTING FOOTWAY GULLY RETAINED.
- EXISTING KERBS AND CONCRETE BEDDING TO BE REMOVED FOR PROPOSED KERB INSTALLATION.
- EXISTING FOOTWAY EXCAVATED TO PROPOSED TACTILE PAVING FORMATION LEVEL.
- EXISTING FOOTWAY EXCAVATED TO PROPOSED BELLMOUTH FORMATION LEVEL.
- EXISTING FOOTWAY PLANED TO ALLOW FOR FOOTWAY RESURFACING.
- EXISTING FOOTWAY EXCAVATED TO PROPOSED FORMATION LEVEL.
- EXISTING CARRIAGEWAY PLANED TO ALLOW FOR RESURFACING.
- EXISTING CARRIAGEWAY EXCAVATED TO PROPOSED FORMATION LEVEL.
- EXISTING KERBS WITHIN SITE HOARDING DAMAGED DURING CONSTRUCTION TO BE REPLACED WITH LIKE FOR LIKE KERB UNITS TO MATCH EXISTING LEVELS.
- EXISTING PCC DRAINAGE CHANNEL TO BE RETAINED.
- B• EXISTING BOLLARDS REMOVED.

ALL WORKS SUBJECT TO MANCHESTER CITY COUNCIL HIGHWAYS SECTION 278 APPROVAL

08.01.25	P04	UPDATED TO MCC COMMENTS	HH	CK
30.08.24	P03	UPDATED TO MCC COMMENTS - NOTE ADDED	CD	CK
27.02.24	P02	UPDATED TO SUIT MCC COMMENTS	G	CK
24.11.23	P01	ISSUED FOR TECHNICAL REVIEW	G	CK
D	R	D r	Dr	C d

Civic Engineers

MANCHESTER C r r W r ,77 D S r , M r, M1 2HG. T :01 1228 757
LONDON R 6 W r, 33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS T r W r , U 02-01, G R d, L d , LS11 5 G. T : 0113 2025 130
GLASGOW Gr m C m r , 45 W N S , G , G1 2PT. T : 0141 370 182

. r . m

Pr

ONE VICTORIA
MANCHESTER

T

S278 HIGHWAY WORKS
SITE CLEARANCE

S

INFORMATION

Pr N m r	S A1	D Cr d	Dr	C d	S
75 -02	1:100	NOV 23	G	CFK	----

Dr N m r: 204-CIV-00-XX-DR-C-30003

R: P04

GREAT DUCIE STREET

WORLDWIDE FANCY GOODS

RAILWAY VIADUCT

PROPOSED EDGING TO DELINEATE ADOPTION EXTENT

PROPOSED KERBS TIE BACK TO EXISTING

PROPOSED EDGING TO DELINEATE ADOPTION EXTENT

PROPOSED FOOTWAY BEYOND EXISTING HIGHWAY BOUNDARY TO BE OFFERED FOR ADOPTION

BRESLYN STREET TO BE REINSTATED TO EXISTING LAYOUT AND LEVEL FOLLOWING CONSTRUCTION PHASE.

PROPOSED EDGING TO DELINEATE ADOPTION EXTENT

PROPOSED FOOTWAY BEYOND EXISTING HIGHWAY BOUNDARY TO BE OFFERED FOR ADOPTION

PROPOSED KERBS TIE BACK TO EXISTING

EXISTING KERBS TO BE BROKEN OUT FOR PROPOSED CAR PARK ACCESS

PROPOSED KERBS TIE BACK TO EXISTING

FULL DEPTH FOOTWAY CONSTRUCTION FOLLOWING TREE REMOVAL

TRIAL PITS TO BE UNDERTAKEN TO DETERMINE UTILITY DEPTHS AT THE PROPOSED CAR PARK ACCESS. IF ANY ISSUES ARE IDENTIFIED, PROPOSED MOVING/ LOWERING OF SERVICES TO BE IN AGREEMENT WITH THE RELEVANT ASSET OWNERS

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH S278 PLANS:

204-CIV-00-XX-DR-C-20001 - PROPOSED LEVELS
204-CIV-00-XX-DR-C-30002 - GENERAL ARRANGEMENT
204-CIV-00-XX-DR-C-30003 - S278 SITE CLEARANCE
204-CIV-00-XX-DR-C-30005 - HIGHWAY ADOPTION PLAN
204-CIV-00-XX-DR-C-31010 - PAVEMENT DETAILS

S d rd N

1. T dr r d r Ar d E r dr d .
2. T dr d d.
3. A d m r r d r r .
4. A d r d r r d C.A. r r mm m r .

CIVIC ENGINEERS LIMITED

N d K

1. ALL EXISTING FOOTWAY LEVELS TO BE MAINTAINED CLOSE TO EXISTING TO AVOID DISRUPTION TO EXISTING SERVICES OR COVER LEVELS

KEY

- EXISTING HIGHWAY BOUNDARY
- PROPOSED DEVELOPMENT SITE BOUNDARY
- REGULATED/RESURFACED CARRIAGEWAY
- REGULATED/RESURFACED FOOTWAY
- RESURFACED RAISED TABLE
- FULL DEPTH RAISED TABLE CONSTRUCTION
- FULL DEPTH CARRIAGEWAY CONSTRUCTION
- FULL DEPTH FOOTWAY CONSTRUCTION
- EXISTING KERB REMOVED
- PROPOSED BULLNOSED KERB (25mm UPSTAND)
- PROPOSED BULLNOSED DROP KERB INCLUDING TRANSITION (mm UPSTAND)
- PROPOSED HALF BATTERED KERB (100mm UPSTAND)
- PROPOSED EF EDGING - LAID FLUSH
- PROPOSED BUFF TACTILES
- ANY EXISTING KERBS WITHIN SITE HOARDING DAMAGED DURING CONSTRUCTION TO BE REPLACED WITH LIKE FOR LIKE KERB UNITS TO MATCH EXISTING LEVELS.
- EXISTING PCC DRAINAGE CHANNEL TO BE RETAINED

ALL WORKS SUBJECT TO MANCHESTER CITY COUNCIL HIGHWAYS SECTION 278 APPROVAL

08.01.24	P0	UPDATED TO MCC COMMENTS	HH	CK
1 .12.24	P05	UPDATED TO MCC COMMENTS	HH	CK
30.08.24	P04	UPDATED TO MCC COMMENTS - NOTE ADDED	CD	CK
27.02.24	P03	UPDATED TO SUIT MCC COMMENTS	G	CK
24.11.23	P02	ISSUED FOR TECHNICAL REVIEW	G	CK
2 .11.22	P01	FOR INFORMATION	CD	CK
D	R	D r	Dr	C d

Civic Engineers

MANCHESTER C r r W r , 77 D S r , M r, M1 2HG. T :01 1 228 757
LONDON R d W r, 33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS T r W r , U 02-01, G R d, L d , LS11 5 G. T : 0113 2025 130
GLASGOW Gr m C m r , 45 W N S , G , G1 2PT. T : 0141 370 182

. r . m

Pr

ONE VICTORIA
MANCHESTER

T

S278 HIGHWAY WORKS
PAVEMENT CONSTRUCTION AND
KERBING LAYOUT

S

INFORMATION

Pr	N m r	S	A1	D Cr d	Dr	C d	S
75	-02	1:100		28.11.22	G	CFK	----

Dr N m r

204-CIV-00-XX-DR-C-30004

R

P0

Great D cie Street

CAR CLUB

Bres n Street

BRESLYN STREET

Mira e Street

RAILWAY VIADUCT

ILLUMINATED PASSAGE SERVICE ZONE

WORLDWIDE FANCY GOODS

PROPOSED CAR CLUB SIGN. MOUNTING FROM BOTTOM OF SIGN TO BE 2.4m (SEE SIGN DETAILS ON RIGHT OF DRAWING)

SP

LP

RWP

RWH

UP

RDH

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH S278 PLANS:

204-CIV-00-XX-DR-C-20001 - PROPOSED LEVELS
204-CIV-00-XX-DR-C-30002 - GENERAL ARRANGEMENT
204-CIV-00-XX-DR-C-30003 - S278 SITE CLEARANCE
204-CIV-00-XX-DR-C-31010 - PAVEMENT DETAILS

S d rd N

1. T dr r d r Ar d E r dr d .
2. T dr d d.
3. A d m r r d r r .
4. A d r d r r d C.A. r r mm m r .

CIVIC ENGINEERS LIMITED

N d K

1. ALL EXISTING FOOTWAY LEVELS TO BE MAINTAINED CLOSE TO EXISTING TO AVOID DISRUPTION TO EXISTING SERVICES OR COVER LEVELS

KEY

- EXISTING HIGHWAY BOUNDARY.
- PROPOSED DEVELOPMENT SITE BOUNDARY.
- AREAS OF CARRIAGEWAY WORK
- AREAS OF FOOTWAY WORK
- AREAS OF DEDICATION
- PROPOSED UNCONTROLLED CROSSING POINT TACTILE PAVING
- EXISTING UNCONTROLLED CROSSING POINT TACTILE PAVING TO BE RETAINED
- LP PROPOSED LIGHTING COLUMN
- LP EXISTING LIGHTING COLUMN
- SP PROPOSED SIGNAGE COLUMN

ALL WORKS SUBJECT TO MANCHESTER CITY COUNCIL HIGHWAYS SECTION 278 APPROVAL

0 .01.25	P0	UPDATED FOLLOWING MCC CONSULTATION	HH	CK
08.01.25	P05	UPDATED TO MCC COMMENTS	HH	CK
17.11.24	P04	UPDATED FOLLOWING MCC CONSULTATION	HH	CK
1 .12.24	P03	UPDATED TO MCC COMMENTS	HH	CK
04.12.24	P02	UPDATED TO MCC COMMENTS	HH	CK
27.02.24	P01	ISSUED FOR TECHNICAL REVIEW	G	CK
D	R	D r	Dr	C d

Civic Engineers

MANCHESTER C r r W r ,77 D S r , M r, M1 2HG. T :01 1 228 757
LONDON R d W r, 33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS T rW r , U 02-01, G R d, L d , LS11 5 G.T : 0113 2025 130
GLASGOW Gr m C m r , 45 W N S , G , G1 2PT. T : 0141 370 182

. r . m

Pr

ONE VICTORIA
MANCHESTER

T

S278 HIGHWAY WORKS
HIGHWAY ADOPTION PLAN

S

INFORMATION

Pr N m r	S A1	D Cr d	Dr	C d	S
75 -02	1:100	FEB 24	G	CFK	----

Dr N m r: 204-CIV-00-XX-DR-C-30005

R: P0

S d rd N

1. T dr r d r Ar d E r dr d .
2. T dr d d.
3. A d m r r d r r .
4. A d r d r r d C.A. r r mm m r .

CIVIC ENGINEERS LIMITED

N d K

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS.
RECEIVED ON: 07.0 .22
DRG NO: 41020MCLS-01

MAJOR CONTOUR 0.5m
MINOR CONTOUR 0.1m
EXISTING HIGHWAY BOUNDARY
PROPOSED DEVELOPMENT SITE BOUNDARY

ALL WORKS SUBJECT TO MANCHESTER CITY COUNCIL HIGHWAYS SECTION 278 APPROVAL

WORLDWIDE FANCY GOODS
RAILWAY VIADUCT
ILLUMINATED PASSAGE/ SERVICE ZONE
BRESLYN STREET
MIRABEL STREET
Mira e Street
Bres n Street
SSL 28 225
SSL 28 275
SSL 28 5
SSL 28 8
SSL 28 725
28.8 0m
28.812m
28.784m
28.730m
28. 00m
28.400m
28.330m
28.28 m
28.50
Ex: 28.650m
Ex: 28.500m
Ex: 28.300m
28.417m
28.483m
28. 25m
28.420m
28.517m
28. 0m
28.700m
28.705m
28.7 1m
28.7 2m
Ex: 28.600m
Ex: 28.700m
Ex: 28.450m

TRIAL PITS TO BE UNDERTAKEN TO DETERMINE UTILITY DEPTHS AT THE PROPOSED CAR PARK ACCESS. IF ANY ISSUES ARE IDENTIFIED, PROPOSED MOVING/ LOWERING OF SERVICES TO BE IN AGREEMENT WITH THE RELEVANT ASSET OWNERS

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH S278 PLANS:

204-CIV-00-XX-DR-C-30002 - GENERAL ARRANGEMENT
204-CIV-00-XX-DR-C-30003 - S278 SITE CLEARANCE
204-CIV-00-XX-DR-C-30004 - PAVEMENT CONSTRUCTION
204-CIV-00-XX-DR-C-30005 - HIGHWAY ADOPTION PLAN
204-CIV-00-XX-DR-C-31010 - PAVEMENT DETAILS

30.08.24	P04	UPDATED TO MCC COMMENTS / SITE PLAN	CD	CK
24.11.23	P03	ISSUED FOR TECHNICAL REVIEW	G	CK
2 .11.22	P02	LEVELS UPDATED	CD	CK
18.10.22	P01	ISSUED FOR INFORMATION	CD	CK
D	R	D r	Dr	C d

Civic Engineers

MANCHESTER C r r W r ,77 D S r , M r, M1 2HG. T :01 1 228 757
LONDON R d W r ,33 M S r , L d SE1 2AX. T : 020 7253 2 77
LEEDS T r W r , U 02-01, G R d, L d , LS11 5 G. T : 0113 2025 130
GLASGOW Gr m C m r , 45 W N S , G , G1 2PT. T : 0141 370 182

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Pr
ONE VICTORIA
MANCHESTER

T
S278 HIGHWAY WORKS
PROPOSED LEVELS

S
INFORMATION

Pr N m r	S A1	D Cr d	Dr	C d	S
75 -02	1:100	14.10.22	CD	CK	----

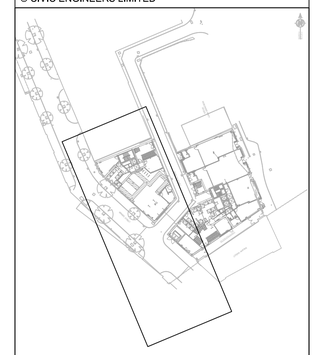
Dr N m r
204-CIV-00-XX-DR-C-20001
R
P04



STANDARD NOTES

1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECT'S AND ENGINEER'S DRAWINGS AND THE SPECIFICATIONS.
2. THIS DRAWING SHOULD NOT BE SCALED.
3. ALL DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR ON SITE.
4. ALL DISCREPANCIES SHOULD BE REPORTED TO C.A./E.A. PRIOR TO THE COMMENCEMENT OF WORKS.

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KEYPLAN (1:1000)

NOTES

1. ALL EXISTING FOOTWAY LEVELS TO BE MAINTAINED CLOSE TO EXISTING TO AVOID DISRUPTION TO EXISTING SERVICES OR COVER LEVELS
2. VISIBILITY SPLAYS DRAWN USING 20MPH DESIGN SPEED, 25.0m Y-DISTANCE, 2.4m X-DISTANCE.

KEY

- EXISTING HIGHWAY BOUNDARY.
- PROPOSED DEVELOPMENT SITE BOUNDARY.
- BACK OF FOOTWAY VIS-SPLAY
- FRONT OF FOOTWAY VIS-SPLAY
- CARRIAGEWAY CENTERLINE VIS-SPLAY

THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH S278 PLANS:

204-CIV-00-XX-DR-C-20001 - PROPOSED LEVELS
204-CIV-00-XX-DR-C-30002 - GENERAL ARRANGEMENT
204-CIV-00-XX-DR-C-30003 - S278 SITE CLEARANCE
204-CIV-00-XX-DR-C-30004 - PAVEMENT CONSTRUCTION
204-CIV-00-XX-DR-C-30005 - HIGHWAY ADOPTION PLAN
204-CIV-00-XX-DR-C-31010 - PAVEMENT DETAILS

ALL WORKS SUBJECT TO MANCHESTER CITY COUNCIL HIGHWAYS SECTION 278 APPROVAL

DATE	REV	DESCRIPTION	DRAWN	CHKD
16.12.24	P03	UPDATED TO MCC COMMENTS	ZHH	CK
04.12.24	P02	UPDATED TO MCC COMMENTS	ZHH	CK
30.08.24	P01	SUBMITTED FOR INFORMATION	ZHH	CK

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PROJECT

ONE VICTORIA
MANCHESTER

TITLE

S278 HIGHWAY WORKS
VISIBILITY SPLAYS

DRAWING STATUS	STATUS CODE
INFORMATION	-

CE PROJECT No.	SCALE @ A1	DATE CREATED	DRAWN	CHECKED
756-02	1:100	AUG '24	ZHH	CK

DRAWING No.	REV
204-CIV-00-XX-DR-C-30006	P03

FILE LOCATION PATH: \\FS01\PROJECTS DRIVE\PROJECTS HO\1756-02 ONE VICTORIA, MANCHESTER\004 BIM\CIVIL\SIDRAWINGS\1756-02-CIV-XX-XX-D-C-30006-S278 PROPOSED VIS SPLAYS.DWG

One Victoria, Manchester

Drainage Maintenance Schedule

September 2025

PREPARED FOR

Torsion Construction Ltd

Drainage Maintenance Schedule

Prepared By	Zakir Hafeji
Reviewed By	Chris Kendrick
Report Reference	756-02
Issued	24/09/2025
Revised	

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3.4. Vortex Flow Control Devices 2

1. Introduction

Civic Engineers have been appointed by Torsion Construction Ltd to provide civil and structural engineering services to support a full planning application for the development herein referred to as One Victoria

2. Site Description

The site is located to the north of the River Irwell in the Green Quarter area of Manchester. The site is bound by Great Ducie Street to the east, existing builings to the north and Mirabel Street to the south and west. The development is disected by Breslyn Street with the land fronting Great Ducie Street was previously used as a private car park. The land fronting Mirabel Street was previously occupied by an existing two-storey building with a basement structure.

The site is generally sloping from the highest point in the north to the lowest point in the south. The overall change in levels is approximately 0.5m.

3. Maintenance Schedule

3.1. Inspection Chambers & Manholes

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

Covers of inspection chambers and manholes shall be removed and the sides, benching and channels cleared.

Accumulated deposits of silt in inspection chambers and manholes shall be removed. Any traps shall then be plunged and thoroughly flushed out with clean water. This should be completed in Autumn, after leaf fall.

Main and branch drains shall be cleared as required and afterwards be flushed with clean water. Any obstructions found shall be removed and not flushed down the system.

Covers of inspection chambers and manholes shall be replaced, bedded in suitable grease or other sealing material as required and bolted/locked down as appropriate. Missing bolts and broken items shall be replaced in accordance with the manufacturer's details.

3.2. Pipes

Regular inspection and maintenance is important to identify areas which may have become obstructed/clogged and may not be draining correctly, as failure to do so would expose the development to a greater level of flood risk.

Pipes are proprietary products and therefore the materials used can vary across the site. As such, where used the manufacturer's recommendations should be followed. Access for maintenance of the pipes is provided through inspection chambers and manholes Table 1 below sets out the maintenance schedule for the pipe components of the proposed drainage systems.

Table 1: Pipe maintenance schedule

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Inspect for evidence of poor operation via water levels. If required, take remedial action.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.
	Check and remove large debris and/or vegetation growth near pipe runs.	Monthly or as required.

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.	As required, if above actions do not improve performance.
Monitoring	Initial inspection should be provided as post construction CCTV survey.	N/A
	Inspect/check all inlets, outlets, and overflows to ensure they are in good condition and operating as designed.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.

3.3. Slot Drains, Rills and Gullies

Slot drains, rills and gullies should be inspected and cleaned in accordance with the manufacturer's details. Slot units can be cleaned using a high-pressure hose; this can be fed into the channel system through access units strategically placed along the channel run.

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 Table 2 below sets out the maintenance schedule for the drainage channel and gullies components of the proposed drainage systems.

Table 2: Drainage Channels and Gullies Maintenance Schedule

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Litter and debris removal	Monthly or as required
	Check and remove large debris and/or vegetation growth near pipe runs.	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.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.
Remedial Actions	Inspect access/outlet boxes and rod through poorly performing channels and outlets as initial remediation	As required.
	Seek advice as to remediation techniques suitable for the type of performance issue.	As required, if above actions do not improve performance
Monitoring	Initial inspection including channel outlet boxes and gully sumps.	Monthly for 3 months, then six-monthly intervals. Also, 48 hours after large storms.

3.4. Vortex Flow Control Devices

Regular inspection and maintenance are important to identify if the vortex flow control device has

become obstructed/clogged and may not be functioning correctly, as failure to do so would expose the development to a greater level of flood risk.

Vortex flow control devices are proprietary products and therefore can vary from manufacturer to manufacturer. As such, where used the manufacturer's recommendations should be followed.

Normally, little maintenance is required as there are generally a vortex flow control device has no moving parts.

If blockages occur, they tend to do so at the intake of the vortex flow control device.

Vortex flow control devices are generally fitted with a pivoting by-pass door, which allows the manhole chamber to be drained down should blockages occur.

The smaller type of conical units, below the minimum recommended size, are also supplied with rodding facilities or vortex suppressor pipes as standard.

Following installation of the vortex flow control device it is vitally important that any extraneous material i.e. Building materials are removed from the unit and the chamber.

After the system is made live, it is recommended that each unit be inspected monthly for three months and thereafter at six monthly intervals with hose down if required. Units should also be inspected within 48 hours after large storms.

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After the system is made live, it is recommended that each unit be inspected monthly for three months and thereafter at six monthly intervals with hose down if required. Units should also be inspected within 48 hours after large storms.

Table 3: Table 20.15 from the CIRIA SuDS Manual C753 on the operation and maintenance requirements for pervious pavements.

TABLE 20.15 Operation and maintenance requirements for pervious pavements

Maintenance schedule	Required action	Typical frequency
Regular maintenance	Brushing and vacuuming (standard cosmetic sweep over whole surface)	Once a year, after autumn leaf fall, or reduced frequency as required, based on site-specific observations of clogging or manufacturer's recommendations – pay particular attention to areas where water runs onto pervious surface from adjacent impermeable areas as this area is most likely to collect the most sediment
Occasional maintenance	Stabilise and mow contributing and adjacent areas	As required
	Removal of weeds or management using glyphospate applied directly into the weeds by an applicator rather than spraying	As required – once per year on less frequently used pavements
Remedial Actions	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, and replace lost jointing material	As required
	Rehabilitation of surface and upper substructure by remedial sweeping	Every 10 to 15 years or as required (if infiltration performance is reduced due to significant clogging)
Monitoring	Initial inspection	Monthly for three months after installation
	Inspect for evidence of poor operation and/or weed growth – if required, take remedial action	Three-monthly, 48 h after large storms in first six months
	Inspect silt accumulation rates and establish appropriate brushing frequencies	Annually
	Monitor inspection chambers	Annually

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Field Veiw Upload Date									
Block A Drainage Runs						Torsion			Y
Ref	F1.2880973	Title	SW MH Run 200-201-202	QA Number	QA.1	Created Date	17.01.24	Status Change	
Ref	F1.2881300	Title	Foul F201 Drainage Runs	QA Number	QA.2	Created Date	17.01.24	Status Change	
Ref	F1.2881458	Title	Foul F202-200 Drainage Runs	QA Number	QA.3	Created Date	17.01.24	Status Change	
Ref	F1.2881680	Title	Foul F202- Temp Connection	QA Number	QA.4	Created Date	17.01.24	Status Change	
Ref	F1.2881777	Title	Foul F203 Drainage Runs	QA Number	QA.5	Created Date	17.01.24	Status Change	
Ref	F1.2881826	Title	SW S200 Drainage Runs	QA Number	QA.6	Created Date	17.01.24	Status Change	
Ref	F1.2882075	Title	SW S201 Drainage Runs	QA Number	QA.7	Created Date	17.01.24	Status Change	
Ref	F1.2882142	Title	SW S202 Darinage Runs	QA Number	QA.8	Created Date	17.01.24	Status Change	
Ref	F1.2882228	Title	Foul F204 Drainage Runs	QA Number	QA.9	Created Date	17.01.24	Status Change	
Ref	F1.2882369	Title	SW S203-Attenuation Tank	QA Number	QA.10	Created Date	17.01.24	Status Change	
Ref	F1.2882532	Title	SW S204 Drainage Runs	QA Number	QA.11	Created Date	17.01.24	Status Change	
Ref	F1.2882714	Title	Foul F205 Drainage Runs	QA Number	QA.12	Created Date	17.01.24	Status Change	
Ref	F1.2882811	Title	SW S203-Attenuation Tank	QA Number	QA.13	Created Date	17.01.24	Status Change	
Ref	F1.2883275	Title	Foul F207 Drainage Runs	QA Number	QA.14	Created Date	18.01.24	Status Change	
Ref	F1.2883348	Title	Foul F206 Drainage Runs	QA Number	QA.15	Created Date	18.01.24	Status Change	
Ref	F1.2883527	Title	Tank S2-Hydro Break Run	QA Number	QA.16	Created Date	18.01.24	Status Change	
Ref	F1.2884086	Title	Foul F206 Drainage Runs	QA Number	QA.17	Created Date	18.01.24	Status Change	
Ref	F1.2884161	Title	Hydro break drainage run	QA Number	QA.18	Created Date	18.01.24	Status Change	
Ref	F1.2884292	Title	C200 Combined sewer runs	QA Number	QA.19	Created Date	18.01.24	Status Change	

Field Veiw Upload Date									
Block A Man Holes						Torsion			Y
Ref	F1.2884463	Title	Man Hole F201	QA Number	QA.1	Created Date	18.01.24	Status Change	
Ref	F1.2884766	Title	Man Hole F202	QA Number	QA.2	Created Date	18.01.24	Status Change	
Ref	F1.2884840	Title	Man Hole F200	QA Number	QA.3	Created Date	18.01.24	Status Change	
Ref	F1.2884908	Title	Man Hole F203	QA Number	QA.4	Created Date	18.01.24	Status Change	
Ref	F1.2884969	Title	Man Hole S200	QA Number	QA.5	Created Date	18.01.24	Status Change	
Ref	F1.2885167	Title	Man Hole S201	QA Number	QA.6	Created Date	18.01.24	Status Change	
Ref	F1.2885222	Title	Man Hole S202	QA Number	QA.7	Created Date	18.01.24	Status Change	
Ref	F1.2885263	Title	Man Hole F204	QA Number	QA.8	Created Date	18.01.24	Status Change	
Ref	F1.2885335	Title	Man Hole S204	QA Number	QA.9	Created Date	18.01.24	Status Change	
Ref	F1.2885419	Title	Man Hole S203	QA Number	QA.10	Created Date	18.01.24	Status Change	
Ref	F1.2885460	Title	Man Hole F205	QA Number	QA.11	Created Date	18.01.24	Status Change	
Ref	F1.2885497	Title	Man Hole F207	QA Number	QA.12	Created Date	18.01.24	Status Change	
Ref	F1.2885553	Title	Man Hole F206	QA Number	QA.13	Created Date	18.01.24	Status Change	
Ref	F1.2885601	Title	Man Hole Hydro Break	QA Number	QA.14	Created Date	18.01.24	Status Change	
Ref	F1.2885711	Title	Man Hole Combined sewer	QA Number	QA.15	Created Date	18.01.24	Status Change	

Field Veiw Upload Date									
Block B Drainage Runs						Torsion			Y
Ref	F1.2889489	Title	SW S101 Drainage runs	QA Number	QA.1	Created Date	19.01.24	Status Change	
Ref	F1.2889584	Title	SW S101-S100 Drainage runs	QA Number	QA.2	Created Date	19.01.24	Status Change	
Ref	F1.2889665	Title	SW S100 Drainage Runs	QA Number	QA.3	Created Date	19.01.24	Status Change	
Ref	F1.2889728	Title	Foul F100 Drainage Runs	QA Number	QA.4	Created Date	19.01.24	Status Change	
Ref	F1.2889820	Title	Foul F100-F102 Drainage Run	QA Number	QA.5	Created Date	19.01.24	Status Change	
Ref	F1.2890125	Title	Foul F102 Drainage Runs	QA Number	QA.6	Created Date	19.01.24	Status Change	
Ref	F1.2890209	Title	Foul F101 Drainage Runs	QA Number	QA.7	Created Date	19.01.24	Status Change	
Ref	F1.2894905	Title	Foul F103 Drainage Runs	QA Number	QA.8	Created Date	22.01.24	Status Change	
Ref	F1.2895005	Title	SW S102 Drainage Runs	QA Number	QA.9	Created Date	22.01.24	Status Change	
Ref	F1.2895217	Title	Foul F104 Drainage Runs	QA Number	QA.10	Created Date	22.01.24	Status Change	

Field Veiw Upload Date									
Block B Man Holes						Torsion			Y
Ref	F1.2895337	Title	Man Hole S101	QA Number	QA.1	Created Date	22.01.24	Status Change	
Ref	F1.2895381	Title	Man Hole S100	QA Number	QA.2	Created Date	22.01.24	Status Change	
Ref	F1.2895459	Title	Man Hole F100	QA Number	QA.3	Created Date	22.01.24	Status Change	
Ref	F1.2895587	Title	Man Hole F101	QA Number	QA.4	Created Date	22.01.24	Status Change	
Ref	F1.2895693	Title	Man Hole F102	QA Number	QA.5	Created Date	22.01.24	Status Change	
Ref	F1.2895755	Title	Man Hole F103	QA Number	QA.6	Created Date	22.01.24	Status Change	
Ref	F1.2895813	Title	Man Hole S102	QA Number	QA.7	Created Date	22.01.24	Status Change	
Ref	F1.2895900	Title	Man Hole C100	QA Number	QA.8	Created Date	22.01.24	Status Change	
Ref	F1.2895974	Title	Man Hole F104	QA Number	QA.9	Created Date	22.01.24	Status Change	

Field Veiw Upload Date									
Block A/B Attenuation Tank						Torsion			Y
Ref	F1.2900323	Title	Attenuation Tank S2	QA Number	QA.1	Created Date	23.01.24	Status Change	
Ref	F1.2903113	Title	Attenuation Tank S1	QA Number	QA.2	Created Date	24.01.24	Status Change	

Drainage and Manholes

CHECKSHEET

Contract:	**One Victoria**	Contract no.:	**204**		**QA19**
Inspection details					
Description:	C200 Combined Sewer Drainage Runs				
Check sheet details					
Drawing references used:	**204-CIV-00-XX-DR-C-30001 C3**				
Has setting out check sheet been signed off?	Yes ☐				
Details of drainage and manholes to be installed:					
Material:	PPIC			Size:	**150/100**
Excavation support method:			**N/A Trench To Be Stepped**		
Concrete grade where applicable			GEN3N / mm2		
Where special installation instructions are to be followed, particularly for interceptors, give brief details. :			N/A		
All materials and plant available on site?			Yes ☐		
Area released for construction:		Initials:	J.W	Date:	**24.08.23**

Drainage pipes laid to correct depth and gradient?	Yes ☐	No ☐		
Correct P Gravel installed as per specification?	Yes ☐	No ☐		
Concrete base installed to specification?	Yes ☐	N/A ☐		
Channels / branches / haunching to specification?	Yes ☐	N/A ☐		
M/H rings / concrete surround or poly chamber or brickwork to specification?	Yes ☐	N/A ☐		
Step irons / ladder rung irons / ladder to specification?	Yes ☐	N/A ☐		
Air/ water test carried out to specification?	Yes ☐	No ☐		
Inspection carried out by Building Control?	Yes ☐	No ☐		
Area correctly backfilled?	Yes ☐	N/A ☐		
Actual installed position recorded for as-built drawing?	Yes ☐	N/A ☐		
Manhole / chamber / interceptor clean and cover(s) installed at correct level?	Yes ☐	N/A ☐		

Area released for next activity:

This check sheet has been issued with the purpose to progress 'the works'.
All work is subject to a final inspection and customer approval at the date of project handover.
This checklist is flexible to allow full checking process by all parties.

Drainage and Manholes checked, approved and released for next activity:

PRINT NAME	COMPANY NAME Torsion, Sub-contractor or third party sign off (delete as applicable)	PRINT JOB TITLE:	SIGNATURE:	DATE:
Aiden Bougourd	**Torsion**	**Engineer**		31.08.23
Jaiden Watts	**Spencer's**	**Engineer**		31.08.23



HEALTH & SAFETY: THE WORKS SHALL BE CARRIED OUT BY SPECIALIST COMPETENT AND EXPERIENCED CONTRACTORS. ALL OPERATIVES SHALL HAVE RECEIVED FULL AND APPROPRIATE TRAINING WITH APPROPRIATE QUALIFICATIONS FOR THE OPERATIONS THEY ARE REQUIRED TO UNDERTAKE. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE RELEVANT HEALTH & SAFETY REGULATIONS.

DRAINAGE NOTES

ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER FOR ACTION PRIOR TO CONSTRUCTION.

ALL DRAINAGE WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY AND IN CONJUNCTION WITH ALL RELEVANT BRITISH STANDARDS, CODES OF PRACTICE AND 'DESIGN AND CONSTRUCTION GUIDANCE FOR FOUL AND SURFACE WATER SEWERS' AND ADDENDUMS AS APPROPRIATE.
ALL DRAINAGE SHALL COMPLY WITH THE TYPICAL DRAINAGE CONSTRUCTION DETAILS AND THE REQUIREMENTS OF BS EN 752.

ACCESS COVERS AND FRAMES SHALL COMPLY WITH THE LOADINGS SPECIFIED AND TO BS EN 124 AND KITEMARKED OR IF RECESSED COVERS ARE SPECIFIED THEN IN ACCORDANCE WITH FACTA ASSOCIATION EQUIVALENT.

ALL INTERNAL COVERS TO BE DOUBLE SEALED RECESSED COVERS TO ACCEPT PROPOSED FLOOR FINISHES.

THE PROPOSED BUILDING OUTLINES SHOWN ON THIS DRAWING ARE FOR INFORMATION ONLY. REFER TO ARCHITECTS PLANS FOR SETTING OUT INFORMATION AND DETAILS.

FOR SETTING OUT DIMENSIONS OF SS'S, SVP'S, RWP'S, FLOOR GULLY & OTHER DRAINAGE 'POP UP' LOCATIONS, REFER TO ARCHITECTS OR MECHANICAL & ELECTRICAL ENGINEERS DRAWINGS. LOCATION OF EXTERNAL CHANNEL DRAINS AND GULLY LOCATIONS / REQUIREMENTS TO BE CONFIRMED BY ARCHITECT.
ALL DRAINAGE PIPEWORK SHOWN SHALL BE 100MM DIAMETER FOR FOUL AND 150MM FOR SURFACE WATER UNLESS NOTED OTHERWISE.
ALL DRAINAGE PIPEWORK SHALL BE LAID SOFFIT TO SOFFIT UNLESS NOTED OTHERWISE.

ALL UNDERSLAB DRAINAGE SHALL BE LAID AT GRADIENTS OF 1:80 MIN. FOR FOUL PIPEWORK AND 1:100 MIN. FOR SURFACE WATER UNLESS NOTED OTHERWISE. ALL UNDERSLAB DRAINAGE SHALL BE CLEAR OF FOUNDATIONS UNLESS SHOWN OTHERWISE.
ALL BENDS IN PIPEWORK TO BE AS LARGE A RADIUS AS POSSIBLE (EXCLUDING CONNECTIONS TO CHAMBERS) TO ENSURE FREE FLOW. SHORT RADIUS BENDS TO BE AGREED WITH DRAINAGE ENGINEER.

ALL SURFACE WATER DROP DOWN POSITIONS SHALL HAVE A BEND SET AT INVERT LEVEL NO GREATER THAN 1.3M BELOW FINISH FLOOR LEVEL.

AT LEAST ONE SOIL PIPE AT THE HEAD OF EACH FOUL RUN SHALL BE VENTED TO THE ATMOSPHERE. ALL SVPS, SSS AND RWP DOWNPIPES SHALL BE ACCESSIBLE AT GROUND LEVEL FOR RODDING PURPOSES.

COVER LEVELS SHOWN ON THIS DRAWING ARE APPROXIMATE AND SHALL BE ADJUSTED TO SUIT LEVELS ON SITE BY CONTRACTOR. COVERS SHALL BE ORIENTATED TO SUIT PAVEMENT FINISHES WHERE APPROPRIATE.
ALL COVER LEVELS ARE TO BE CONFIRMED BY THE ARCHITECT

ALL PRIVATE DRAINAGE PIPEWORK FOR FOUL AND SURFACE WATER SYSTEMS HAVE BEEN DESIGNED ON THE BASIS OF UPVC TO BS EN 1401-1, UNLESS NOTED OTHERWISE.

CONCRETE ENCASEMENT OF THE PIPEWORK SHALL BE REQUIRED WHERE VERTICAL CLEARANCE BETWEEN TWO PIPES CROSSING IS LESS THAN 300MM.
WHERE NEW DRAINAGE IS SITUATED WITHIN 5 METRES OF NEW OR EXISTING TREES THE PIPEWORK SHALL BE ENCASED IN CONCRETE TO REDUCE THE RISK OF ROOT INGRESS.

ALL DRAINAGE CONNECTING TO THE PUBLIC SEWER NETWORK SHALL NOT COMMENCE UNTIL RECEIPT OF THE APPROVAL FROM THE DRAINAGE AUTHORITY AND SHALL COMPLY WITH REQUIREMENTS USING VITRIFIED CLAY PIPEWORK TO BS EN 295 WITH PLAIN SLEEVED OR SOCKETED FLEXIBLE JOINTS SUBJECT TO APPROVAL.

WHERE DRAINAGE WORKS ARE CARRIED OUT IN THE PUBLIC HIGHWAY THE RELEVANT NECESSARY APPROVALS AND ROAD OPENING NOTICES SHALL BE OBTAINED FROM THE HIGHWAY AUTHORITY AND UTILITY COMPANIES.

PRIOR TO CONSTRUCTION THE FLOW CONTROL MANUFACTURER'S DRAWING AND HYDRAULIC TABLE SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL

PRIOR TO CONSTRUCTION THE ATTENUATION TANK MANUFACTURER'S DRAWINGS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL

UPON COMPLETION ALL NEW DRAINAGE INSTALLATION TOGETHER WITH ANY EXISTING DRAINAGE RETAINED SHALL BE JETTED AND CCTV SURVEYED UPON COMPLETION. CONTRACTOR TO ENSURE THAT THE DRAINAGE SYSTEM IS FULLY OPERATIONAL, FREE OF EXCESS DEBRIS/SILT AND ALL IDENTIFIED FAULTS RECTIFIED.

Standard Notes

1. This drawing is to be read in conjunction with all relevant Architect's and Engineer's drawings and the specification.
2. This drawing should not be scaled.
3. All dimensions are to be verified by the contractor on site.
4. All discrepancies should be reported to the C.A. prior to the commencement of the works.

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Notes and Keys

TOPOGRAPHICAL SURVEY BY SURVEY SOLUTIONS. RECEIVED ON: 07.09.22 DRG NO: 41020MCLS-01

ALL DRAINAGE PROPOSALS ARE SUBJECT TO CONFIRMATION OF EXISTING SEWER LEVELS

ALL RWP AND SVP DROPS TO BE CONFIRMED BY ARCHITECT

ALL POP UP REST BENDS ARE SET MIN 450mm BELOW SSL

WHERE POP UPS ARE LOCATED ON PILECAPS / GROUND BEAMS AND A CONTINUOUS GRADE CANNOT BE ACHIEVED PIPE SHOULD BE SET AT A MIN 1:40 GRADIENT UNTIL CLEAR OF PILECAP FOOTPRINT WITH A BEND TO ALLOW FOR STEEP GRADIENT CONNECTION TO DOWNSTREAM INSPECTION CHAMBER. REFER TO TYPICAL DETAIL ON DRAWING C-31001

- FOUL SEWER 100mm DIAMETER UNLESS OTHERWISE NOTED
- STORM SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- COMBINED SEWER 150mm DIAMETER UNLESS OTHERWISE NOTED
- EXISTING PUBLIC COMBINED SEWER
- PROPOSED S185 CW SEWER DIVERSION
- FOUL SEWER INSPECTION CHAMBER 450mm DIAMETER
- STORM SEWER INSPECTION CHAMBER 450mm DIAMETER
- CP SW INSPECTION CHAMBER CATCHPIT WITH 300mm SUMP
- SW FLOW CONTROL CHAMBER
- COMBINED SEWER INSPECTION CHAMBER / MANHOLE
- STUB STACK
- SVP
- RWP
- FLOOR GULLY
- SLOT DRAIN ACO M100D WITH BRICKSLOT ST GRATING
- YG YARD GULLY

Date	Rev	Description	Drawn	Chkd
21.08.23	C03	POP UP LOCATIONS UPDATED	ZG	CK
03.08.23	C02	PROPOSED DIVERSION UPDATED	ZG	JT
11.07.23	C01	ISSUED FOR CONSTRUCTION	ZG	CK
08.12.22	P07	RWP ADDED/LAYOUT AMENDED	CD	ZG
29.11.22	P06	DRAINAGE UPDATED	CD	CK
25.11.22	P05	DRAINAGE UPDATED	ZG	CK
02.11.22	P04	DRAINAGE UPDATED	CD	CK
28.10.22	P03	UPDATED FFLs AND DRAINAGE	CD	CK
12.09.22	P02	COORDINATED WITH M&E DESIGN	ZG	CK
04.07.22	P01	FOR INFORMATION	CD	CK

Civic Engineers

Project

ONE VICTORIA MANCHESTER

Title

DRAINAGE GENERAL ARRAGEMENT

Status

CONSTRUCTION

Project Number	Scale @ A1	Date Created	Drawn	Checked	Suitabil
756-02	1:100	04.07.22	CD	CK	----

Drawing Number: 204-CIV-00-XX-DR-C-30001

Revision: C03

ONE LINE
MARKING PAINT