

PRELIMINARY
SUBJECT TO SECTION 104
APPROVAL

THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL
RELEVANT DESIGN DRAWINGS AND OTHER INFORMATION

Type	MINIMUM DIMENSIONS FOR MANHOLES		Min clear opening size	Circular diameter
	Size of largest pipe (mm)	Min internal dimensions		
Manhole < 15m deep to surface	≤ 150	Rectangular length and width 750 x 675	1000	750 x 675
	> 150	Rectangular length and width 1200 x 750	1200	1000
> 15m deep to surface	≤ 225	Rectangular length and width 1200 x 1000	1200	1000
	> 225	Rectangular length and width 1500 x 1200	1500	1200
Manhole > 30m deep to surface	≤ 225	Rectangular length and width 1200 x 1000	1200	1000
	> 225	Rectangular length and width 1500 x 1200	1500	1200

- NOTES:
- 1) LARGER SIZES MAY BE REQUIRED FOR MANHOLES ON BENDS OR WHERE THERE ARE JUNCTIONS.
 - 2) MAY BE REDUCED TO 675 BY 675 WHERE REQUIRED BY HIGHWAY LOADING CONSIDERATIONS, SUBJECT TO A SAFE SYSTEM OF WORK BEING SPECIFIED.
 - 3) NOT APPLICABLE DUE TO WORKING SPACE NEEDED.
 - 4) MINIMUM HEIGHT OF CHAMBER IN SHAFTED MANHOLE 2M FROM BENCHING TO UNDERSIDE OF REDUCING SLAB.
 - 5) MIN CLEAR SPACE BETWEEN LADDERS OR STEPS AND THE OPPOSITE FACE OF THE SHAFT SHOULD BE APPROXIMATELY 900MM.
 - 6) WHEN ONLY ONE LADDER OR LADDERS, REINFORCEMENT OR REMOVABLE.
 - 7) THE MINIMUM SIZE OF ANY MANHOLE SERVING A SEWER (IE ANY DRAIN SERVING MORE THAN ONE PROPERTY) SHOULD BE 1200 MM X 675 MM RECTANGULAR OR 1200 MM DIAMETER.

INDEPENDENT WATER NETWORKS LIMITED (IWNL)
MANHOLE REQUIREMENTS FOR DESIGN AND CONSTRUCTION GUIDANCE

GENERAL REQUIREMENTS

COPIES OF DELIVERY NOTES FOR CONCRETE AND PIPE BEDDING WILL BE REQUIRED INTERMITTENTLY AS THE JOB PROGRESSES. ALL OTHER COMPONENT UNITS MUST BE KITE-MARKED.

CHANNELS AND BENCHING

ALL CHAMBERS WITH PIPE SIZES 150MM, 225MM, 300MM MUST HAVE SWEEP BENDS AND CHANNELS. ALL BENCHING TO BE A MINIMUM 40MM THICK GRANULITHIC CONCRETE TROWELLED TO A SMOOTH FINISH.

IRONWORK IN MANHOLES

IF THE CHAMBER IS LESS THAN 3M DEEP WE REQUIRE DOUBLE ENCAPSULATED STEP RUNGS UNLESS OTHERWISE APPROVED. IF THE CHAMBER IS OVER 3M DEEP WE REQUIRE NOT DIPPED GALVANISED MILD STEEL LADDERS THERE MUST BE 800MM BETWEEN LADDER AND BACK OF SHAFT. DEPTH IS MEASURED FROM FINISHED COVER LEVEL TO THE TOP OF THE BENCHING. THE MAXIMUM DISTANCE BETWEEN COVER LEVEL AND THE FIRST STEP MUST BE 675MM.

BRICKWORK

MIN 2 MAX 4 COURSES UNDER FRAME AND MUST BE SOLID CLASS B ENGINEERING BRICKS OR CONCRETE SPACING RINGS NEATLY POINTED UP. ENGLISH BOND TO BE USED ON ALL BRICKWORK. SULPHATE RESISTING CEMENT MUST BE USED IN ALL LOCATIONS.

COVER AND FRAMES

COVER SLAB OPENING, COVER AND FRAMES MUST BE 675 X 675 UNLESS OTHERWISE APPROVED. DN400 SHALL BE USED AT ALL LOCATIONS. ON SPINE ROADS MUST BE 150MM DEEP. ON RESIDENTIAL CUL-DE-SACS 100MM MAY BE USED SUBJECT TO APPROVAL. FRAMES FOR MANHOLE COVERS SHOULD BE BEDDED IN A POLYESTER RESIN BEDDING MORTAR IN ALL SITUATIONS WHERE COVERS ARE SITED IN NRSWA ROAD CATEGORIES I, II OR III.

"INFILL" TYPE COVERS SHOULD NOT BE USED.

IN BLOCK PAVED AREAS 150MM DEEP FRAMES MUST BE USED IN ACCORDANCE WITH DESIGN AND CONSTRUCTION GUIDANCE P22)

LATERALS

THEY SHOULD BE LAID TO THE SAME STANDARD AS PUBLIC SEWERS. THEY SHOULD HAVE NO CHANGES OF LINE OR GRADIENT BETWEEN THE SEWER AND THE DEMARCATION CHAMBER. THEY SHOULD HAVE AN ADAPTABLE MANHOLE AS THE DEMARCATION CHAMBER UNLESS THERE IS ONLY ON PROPERTY WHEN A PLASTIC CHAMBER TO BS EN 13396-2:2009 IS ALLOWED. LOCKABLE B125 AND A15 COVERS MAY BE ALLOWED IN CERTAIN LOCATIONS SUBJECT TO APPROVAL. THE DEMARCATION SHOULD BE INSIDE THE BOUNDARY OF THE PROPERTY, NO MORE THAN 1M INSIDE THE BOUNDARY, PREFERABLY IN THE DRIVEWAY AND NOT IN THE WHEEL TRACKS OF VEHICLES.

S104 APPLICATION

A SECTION 106 APPLICATION TO SEVERN TRENT WATER MUST BE COMPLETED FOR THE RE USE OF ANY EXISTING CONNECTION INTO THE EXISTING PUBLIC SEWAGE SYSTEM OR THE CONSTRUCTION OF A NEW CONNECTION.

AN APPLICATION WILL BE REQUIRED FOR THE Foul AND SURFACE WATER DRAINAGE ARRANGEMENTS AND THIS SHOULD BE COMPLETED BY THE CONTRACTOR.

ALL SEWERS ARE TO COMPLY WITH THE DESIGN AND CONSTRUCTION GUIDE AND SEVERN TRENT WATER REQUIREMENTS

WHERE PIPE CROSSING, PLASTIC MEMBRANE TO BE USED FOR PROTECTION TO ELIMINATE CHANCES OF CROSS CONTAMINATION

PIPES OF DIFFERENT DIAMETERS ENTERING MANHOLES SHOULD BE INSTALLED WITH SORFITS AT THE SAME LEVEL

THE OUTSIDE OF THE SEWER SHOULD BE IN VEHICLE CARBONADO (NOT FOOTPATH) AND BE AT LEAST 1m FROM KERB LINE. THE OUTSIDE MANHOLES SHOULD BE AT LEAST 1.5m FROM THE KERB LINE

TREES ON THE DRAWING ARE EXISTING OR PROPOSED AND ADHERE TO B2.3 (PAGE 33) OF SP48. THE TREES SPECIFIED WILL BE AS PER SEWERS FOR ADOPTION AND POSITIONED WHERE CLEARANCES WITH VEGETATION IS NOT ACHIEVABLE. APPROPRIATE ROOT PROTECTION WILL BE PROVIDED

THE MATERIALS TO BE USED ARE SUITABLE FOR THE GROUND CONDITIONS

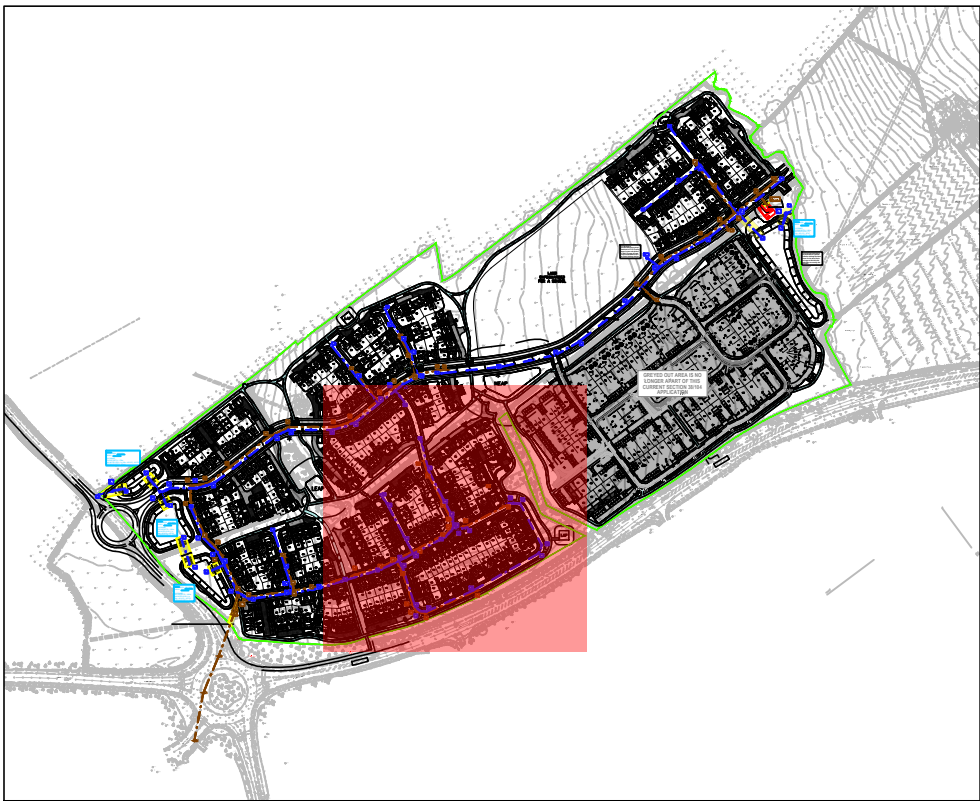
ANY POND BED LINING AND / OR BANK STABILISATION METHODS REQUIRED FOR BALANCING POND TO BE ASSESSED BY STRUCTURAL ENGINEER

IMPORTANT: HEADWALLS WILL REQUIRE THE ENVIRONMENT AGENCY'S PRIOR WRITTEN CONSENT UNDER SECTION 106 OF THE WATER RESOURCES ACT 1989 BEFORE ANY CONSTRUCTION TAKES PLACE

HEADWALLS TO BE PRE-CAST CONCRETE. PLEASE REFER TO ALTHON DRAWINGS FOR DETAILS



- GENERAL NOTES**
1. THIS DRAWING IS COPYRIGHT AND SHOULD NOT BE REPRODUCED IN WHOLE OR PART WITHOUT THE WRITTEN CONSENT OF AJP MIDLANDS LTD.
 2. DO NOT SCALE FROM THIS DRAWING.
 3. ALL DIMENSIONS TO BE CHECKED ON SITE AND CO-ORDINATE WITH RELEVANT ARCHITECT'S DRAWINGS. ANY DISCREPANCIES TO BE REPORTED TO THE ENGINEER PRIOR TO CONSTRUCTION.
 4. ALL DIMENSIONS IN METRES UNLESS NOTED OTHERWISE.
 5. ALL LEVELS IN METRES.
 6. SIZES HEREON SHALL NOT BE MODIFIED WITHOUT THE WRITTEN APPROVAL OF THE ENGINEER.
 7. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS DRAWINGS & SPECIFICATIONS.



REV	DATE	DESCRIPTION	BY	CHK	APP
P04	09.04.2026	LATEST DRAINAGE DESIGNS SHOWN AND DRAWING UPDATED TO SUIT S104 COMMENTS	KG	KG	CS
P03	06.01.2026	GULLY LOCATIONS AMENDED	AQ	KG	CS
P02	04.12.2025	UPDATED TO SUIT LATEST LAYOUT	KG	KG	CS
P01	18.08.2025	INITIAL ISSUE FOR CLIENT REVIEW	LP	KG	CS

DRAWING STATUS:

S2 - ISSUED FOR INFORMATION

CLIENT: VISTRY SOUTH EAST MIDLANDS

ARCHITECT: N/A

PROJECT: STOKE ROAD, HINCKLEY

TITLE: S104 DRAINAGE GENERAL ARRANGEMENT SHEET 2

STATUS:	PROJECT No:	PROJECT	ORIGINATOR	VOL/SYS/LEVEL	TYPE	ROLE	DRAWING No.	REV:
S2	M224-138	SRH - AJP - ZZ - 00 - DR - C - 2001	P04					

SCALE @ A1: 1:500

DESIGNED: KG/LP

DRAWN: LP

CHECKED: KG

APPROVED: CS

DATE: 18.08.25

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