



0 2 4 6 8 10 m
SCALE 1:200

SURFACE WATER MANHOLE SCHEDULE

MANHOLE REF.	COVER LEVEL (M)	INVERT LEVEL (M)	MANHOLE TYPE	COVER TYPE	D/S MH REF.	SEWER DIA. (MM)	SEWER GRADIENT	SEWER MATERIAL	DEPTH (MM)	MANHOLE DIAMETER
SWIC01	7.850	7.350	TYPE 3	B125	SWIC02	1500	1:150	UPVC	500	250
SWIC02	7.850	7.215	TYPE 4	D400	SWIC03	1500	1:150	UPVC	635	250
SWIC03	7.850	7.025	TYPE 4	D400	SWIC04	1500	1:150	UPVC	825	250
SWIC04	7.850	6.830	TYPE 3	B125	SWIC05	1500	1:150	UPVC	1020	250
SWIC05	8.000	6.710	TYPE 4	D400	SWIC07	1500	1:150	UPVC	1029	250
SWIC06	8.000	6.675	TYPE 4	D400	SWIC05	1500	1:56	UPVC	1325	250
SWIC07	7.975	6.675	TYPE 4 CATCHPIT	D400	SOAKAWAY	1500	1:150	UPVC	1300	250

NOTES:

- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- ALL LEVELS ARE SHOWN IN METRES UNLESS NOTED OTHERWISE.
- DO NOT SCALE FROM THE DRAWING. USE FIGURED DIMENSIONS ONLY.
- ANY DISCREPANCIES TO BE REPORTED IMMEDIATELY TO THE ENGINEER.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ARCHITECTS, ENGINEERS, SUBCONTRACTORS AND SPECIALISTS DRAWINGS AND SPECIFICATIONS.
- EXISTING SERVICES HAVE NOT BEEN SHOWN BUT ARE PRESENT - THE CONTRACTOR IS TO LIAISE WITH ALL STATUTORY AUTHORITIES PRIOR TO THE COMMENCEMENT OF ANY WORKS.

DRAINAGE LEGEND

- PROPOSED SURFACE WATER DRAINAGE
- RWP • PROPOSED RAINWATER PIPE
- PROPOSED SPOT LEVEL
- EXISTING SPOT LEVEL
- DRAINAGE FORMATION LEVEL
- PERFORATED PIPE
- POUROUS ASPHALT SERVICE YARD
- POROUS ASPHALT FOOTPATH
- BIORETENTION GREEN ROOF
- SAB BOUNDARY

PLEASE REFER TO DRAWING 21130_501 FOR CONSTRUCTION DETAILS.

PRELIMINARY

GENERAL DRAINAGE NOTES:

- MH COVERS AND FRAMES TO CONFORM TO BS EN 124:
-HIGHWAYS AND FOOTWAYS TO FRONT OF BUILDINGS (D400)
-FOOTWAYS TO REAR OF BUILDINGS (C250)
- TYPE S BEDDING AND SURROUND TO ALL PIPES EXCEPT IN THE FOLLOWING CIRCUMSTANCES, IN WHICH TYPE Z BEDDING AND SURROUND ARE TO BE USED:
-DOMESTIC GARDENS AND PATHWAYS WITHOUT ANY POSSIBILITY OF VEHICULAR ACCESS, 0.35m;
-DOMESTIC DRIVEWAYS, PARKING AREAS AND YARDS WITH HEIGHT RESTRICTIONS TO PREVENT ENTRY BY VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES, 0.5m;
-DOMESTIC DRIVEWAYS, PARKING AREAS AND NARROW STREETS WITHOUT FOOTWAYS (E.G. MEWS DEVELOPMENT) WITH LIMITED ACCESS FOR VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES, 0.9m;
-AGRICULTURAL LAND AND PUBLIC OPEN SPACE, 0.9m;
-HIGHWAYS AND PARKING AREAS WITH UNRESTRICTED ACCESS TO VEHICLES WITH A GROSS VEHICLE WEIGHT IN EXCESS OF 7.5 TONNES, 1.2m.
- ALL EXISTING MANHOLE INVERTS TO BE CHECKED AND REPORTED TO THE ENGINEER PRIOR TO THE COMMENCEMENT OF DRAINAGE WORKS. EXISTING PIPE CONNECTIONS ARE TO BE CCTV SURVEYED AND INSPECTED BY THE ENGINEER AND LOCAL AUTHORITY. IF THE PIPE CONNECTION IS FOUND TO BE DAMAGED OR IN DISTRESS, THE CONTRACTOR IS TO CARRY OUT REMEDIAL WORKS OR PROVIDE A NEW CONNECTION TO THE EXISTING SEWER (PIPE SIZE AND GRADIENT TO BE DETERMINED BY THE ENGINEER.
- THE GRADIENTS INDICATED AGAINST THE DRAIN RUNS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL INSTALL DRAINS TO THE INVERT LEVELS SHOWN FOR EACH MANHOLE OR OTHER INDICATED POSITION.
- ALL PLOT FOUL DRAINAGE TO BE MINIMUM 100mm DIAMETER UNLESS OTHERWISE NOTED.
- ALL ADAPTABLE THERMOPLASTIC STRUCTURED WALL SEWER PIPE SHALL COMPLY WITH THE RELEVANT PROVISIONS OF BS EN 13476-1 AND WIS 4-35-01 AND BS EN 13476-2 OR BS EN 13476-3. PIPES SHALL BE BSI KITEMARKED OR HAVE EQUIVALENT THIRD PARTY CERTIFICATION. PIPES LESS THAN OR EQUAL TO 500mm DIA. SHALL HAVE A SHORT-TERM RING STIFFNESS OF NOT LESS THAN 8kN/m² (SN8).
- ALL JOINTING IN ACCORDANCE WITH MANUFACTURERS TECHNICAL ADVICE & SPECIFICATION.
- ALL NON ADOPTABLE DRAINAGE TO BE THE STANDARD UPVC 110mm, 160mm DRAINAGE AND MANUFACTURED TO BS-EN 1401 AND BS 4660 UNLESS NOTED OTHERWISE.
- ALL PERMEABLE PAVING CELLS TO HOUSE LATERAL FIN DRAIN ALONG LOWER EDGE WITH 1500 CONNECTION PIPE.
- SOIL & VENT PIPE LOCATION AND NUMBER TO BE CONFIRMED WITH ARCHITECT.
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS DRAWINGS, TOGETHER WITH THEIR LATEST SPECIFICATIONS. ANY DISCREPANCIES ARE TO BE REPORTED TO THE ENGINEER (VALE CONSULTANCY) AS SOON AS POSSIBLE.
- FIGURED DIMENSIONS ONLY TO BE USED. ANY QUERIES OR DISCREPANCIES TO BE REFERRED TO THE ENGINEER (VALE CONSULTANCY) IMMEDIATELY.
- PRIOR TO ORDERING ANY MATERIALS THE CONTRACTOR IS TO CONFIRM MANUFACTURER/PIPE MATERIAL AND GRADE PROPOSED WITH WATER AUTHORITY.
- TEMPORARY WORKS DESIGN BY OTHERS.
- DESIGN RISK ASSESSMENTS AND METHOD STATEMENTS ARE TO BE PROVIDED TO THE PRINCIPLE CONTRACTOR PRIOR TO THE COMMENCEMENT OF ANY WORKS.

PLANTING SCHEDULE - BIORETENTION AREAS (GREEN ROOF)

PLANTS WITHIN BIORETENTION AREAS (RAINGARDENS) SHOULD BE PLANTED WITH THE FOLLOWING SPECIES AT A DENSITY OF 4NO PLANTS/M²:

- PURPLE LOOSESTRIPE (LYTHRUM SALICARIA)
- WATER MINT (MENTHA AQUATICA)
- HEMP AGRIMONY (EUPATORIUM CANNABINUM)
- RAGGED ROBIN (LYCHNIS FLOS-CUCULI)
- MARSH WOUNDWORT (STACHYS PALUSTRIS)
- SOFT RUSH (JUNCUS EFFUSUS)
- ROYAL FERN (OSMUNDA REGALIS)
- BUGLE (AJUGA REPTANS)
- CHIVES (ALLIUM SCHOENOPRASUM)
- WHITE DAZZLER (CHOISYA DEWITTEANA)
- HAZEL (CORYLUS AVELLANA)

SW RUNOFF FROM GREEN ROOF TO DISCHARGE INTO PROPOSED STONE TRENCH SOAKAWAY VIA CLOSED PIPE DRAINAGE NETWORK AND PERMEABLE PAVING SYSTEM.

SOAKAWAY CRATE INFO
MIN OF 0.6M COVER IN TRAFFICKED AREAS
28m LONG x 13m WIDE x 0.8m DEEP.
CL:7.900
TOT:6.645
IL:5.845