



Diagram illustrating the cross-section of a road pavement structure, showing the following layers from top to bottom:

- Porous resin bonded surfacing
- Porous Asphalt Construction suitable for vehicle loading assumed 100mm depth
- Porous Construction suitable for vehicle loading assumed 30% void ratio and 300mm depth
- 100mm G Perforated pipe to be wrapped in geotextile membrane (Teram c.s.a.)

MANHOLE SCHEDULE - SURFACE WATER

MANHOLE SCHEDULE - FOUL WATER					
Manhole Ø (mm)	Depth to soffit (m)	Outgoing Pipe Ø (mm)	Invert Level	Cover Level	Man Number
1200	2.215	150	104.735	107.100	FM#01
1200	2.250	150	104.700	107.200	FM#02
1200	2.165	150	104.885	107.200	FM#03
1500	1.150	150	106.000	107.200	FM#04
1500	0.760	100	106.320	107.200	FM#05
475	0.720	100	106.400	107.200	FM#06
475	0.680	100	106.430	107.200	FM#07
475	0.645	100	106.180	107.200	FM#08
475	0.770	100	106.255	107.000	FM#10
475	0.710	100	106.130	107.000	FM#11
475	0.700	100	106.200	107.000	FM#12
475	0.600	100	106.300	107.000	FM#13
475	0.550	100	106.350	107.000	FM#14
475	0.500	100	106.400	107.000	FM#15
475	0.575	100	106.325	107.000	FM#16
475	0.500	100	106.400	107.000	FM#17

MANHOLE SCHEDULE - FOUL WATER					
Manhole Ø (mm)	Depth to soffit (m)	Outgoing Pipe Ø (mm)	Invert Level	Cover Level	Man Number
1200	2.215	150	104.735	107.100	FM#01
1200	2.250	150	104.700	107.200	FM#02
1200	2.165	150	104.885	107.200	FM#03
1500	1.150	150	106.000	107.200	FM#04
1500	0.760	100	106.320	107.200	FM#05
475	0.720	100	106.400	107.200	FM#06
475	0.730	100	106.400	107.200	FM#07
475	0.680	100	106.540	107.200	FM#08
475	0.645	100	106.585	107.200	FM#10
475	0.770	100	106.330	107.000	FM#11
475	0.700	100	106.200	107.000	FM#12
475	0.600	100	106.300	107.000	FM#13
475	0.550	100	106.350	107.000	FM#14
475	0.500	100	106.400	107.000	FM#15
475	0.575	100	106.320	107.000	FM#16
475	0.500	100	106.400	107.000	FM#17

1. ALL ADAPTABLE DRAINAGE WORKS INCLUDING WORKS TO EXISTING A/V PIPES SHALL BE UNDERTAKEN IN ACCORDANCE WITH SEVERALS FOR THE WATERING IRRIGATION 7TH EDITION, AND CONSTRUCTED TO THE RELEVANT STATUTORY UNDERGATEMS DETAILS.
2. ALL ADAPTABLE DRAINAGE PIPES WILL REQUIRE A MINIMUM OF 1200mm COVER IN ACCORDANCE WITH SEVERALS REQUIREMENTS.
3. ALL PRIVATE DRAINAGE WORKS TO BE IN ACCORDANCE WITH CIVIL ENGINEERING SPECIFICATION FOR THE WATER INDUSTRY 7TH EDITION, BS EN 752 2000 DRAIN AND SEWER SYSTEMS OUTSIDE BUILDINGS, AND THE BUILDING REGULATIONS APPROVED DOCUMENT H.
4. ALL PRIVATE DRAINAGE PIPES WITH A COVER OF LESS THAN 300mm IN NON-TRAFFICED AREAS AND LESS THAN 600mm IN TRAFFICED AREAS TO BE COVERED WITH A MINIMUM 150mm CLASS 3 CONCRETE COVER. MATERIAL SHALL BE PROVIDED AT EVERY JOINT, WHERE COVER EXCEEDS THIS PIPES ARE TYPICALLY BEDDED AND SURROUNDED IN CLASS 3, REFER TO PIPE EMBEDMENT DETAIL DRAWING FOR SPECIFIC TYPES.
5. COVER LEVELS, GULLY POSITIONS AND DRAINING LOCATION ARE APPROXIMATE AND SHALL BE CONFIRMED BY ARCHITECT LANDSCAPE ARCHITECTS AND CIVIL ENGINEERS. ALL EXISTING AND PROPOSED PIPES, POSITIONS AND FINISHED LEVELS AND CONFORM ALL COVER LEVELS ON SITE.
6. ALL NEW CONNECTIONS INTO EXISTING MANHOLES OR INTO EXISTING SEWERS TO BE 500mm LEVELS TO THE SOFFITS LEVEL OTHERWISE NOTED.
7. PRANS WITH A COVER OF LESS THAN 600mm OR BENEATH BUILDING FOOTPRINT TO BE Laid WITH A MINIMUM 150mm CLASS 3 CONCRETE BED AND SURROUND.
8. FOR GRAVITY SEWERS, ALL DRAINAGE AND FITTINGS TO BE FLEXIBLY JOINTED.
UP TO BS EN 420-1:2005
CONCRETE TO BE 50/110-205
9. ALL EXISTING GULLY SHALL BE REDESIGNED TO ACCORD WITH THE OUTSIDE FACT OF ANY STRUCTURE INTO WHICH A PIPE IS BUILT. COMPATIBLE WITH THE SATISFACTORY COMPLETION AND SUBSEQUENT MOVEMENT OF THE JOINT.
10. RWP SOIL STACK AND VENT PIPE POSITIONS ARE ASSUMED AND TO BE PROVIDED BY ARCHITECT.
11. ALL ACCESS FITTINGS STACKS AND GULLIES TO BE ROOFABLE.
12. ALL NEAR TO THE FLOOR OF FLOORS.
13. BACKFILL TO DRAINAGE TRENCHES UNDER HARD-PAVING AREAS TO BE COMPACTED TO 95% OF STANDARD DENSITY. MATERIAL TO BE CLEAN, WASHING READY, COMPATIBLE MATERIAL, FREE FROM RUBBISH AND ORGANIC MATTER. FROZEN SOIL, CLAY LUMPS AND LARGE STONES TO BE COMPACTED IN LAYERS NOT EXCEEDING 150mm THICK.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT PIPES ARE ADEQUATELY PROTECTED FROM CONCENTRATED LOADING BY CONSTRUCTION TRAFFIC DURING THE CONSTRUCTION PERIOD.
15. CONNECTIONS TO EXISTING PUBLIC SEWERS WILL BE SUBJECT TO SECTION 106 APPLICABLE FROM UNDERGATEMS.
16. ALL DRAIN TO BE C/CY SURVEYED ON COMPLETION OF THE WORKS.

Curtins

Curtis Consulting Ltd
Meridian Exchange 17-19 Whitworth Street West Manchester M1 5WG
www.curtins.com
e manchester@curtins.com
e london@curtins.com

Bristol • Cardiff • Exeter • Glasgow • Harrogate • London • Liverpool • Leeds • Manchester • Newcastle • Nottingham • Oxford • Plymouth • Southampton • Swansea • Telford • York

© This drawing is the copyright of Curtains Consulting Ltd