



Legend

- Foul water sewer
- Foul water manhole
- IC Inspection chamber
- SVP# Soil vent pipe/vented to atmosphere
- AAV Air Admittance Valve
- SS Stub Stack
- FO Floor Outlet
- TD Threshold Drain
- AC Aco Channel
- FG Floor Gully
- Surface water sewer
- Surface water manhole
- RWP Rainwater pipe
- Attenuation Tank
- Lined porous paving
- Existing surface water sewer
- Existing foul water sewer
- Existing combine sewer
- Existing pipes to be capped/removed

- Notes
- This drawing is to be read in conjunction with the relevant specification and all other related drawings issued by the engineer.
 - Do not scale from this drawing, work from figured dimensions only. All dimensions, levels and survey grid co-ordinates are to be checked on site and the engineer notified immediately of any discrepancies prior to the commencement of the works.
 - No deviation from the details shown on this drawing is permitted without prior permission from the engineer.
 - The contractor shall be responsible for obtaining all necessary approvals (if required) from the local water authority prior to commencing works i.e. road closure notices.
 - Drains to be constructed using flexibly jointed vitrified clay pipes to BS 65:1991 "super strength" specification and BS EN 295-1:1995 (hepworth superseve or similar approved) or flexibly jointed concrete pipes to BS 5911-1:2002 or ultra fortis UPVC pipes to BS EN 1401:2009, bedded and back filled in accordance with the manufacturer's instructions. All tested in accordance with BS EN 1610:1998.
 - Private foul water and surface water drainage is to be constructed in accordance with the building regulations part H (2002), BS EN 12056-2:2002 (inside buildings), BS EN 752:2008 (outside buildings) and all relevant agreement certificates.
 - Back filling of drain trenches adjacent to dwellings of other structures to be in accordance with the building regulations part H1; diagram 8.
 - Drains in areas of made ground to be constructed by first making up the area to approximately finished level and then excavate through the fill material into undisturbed ground. The drain trench is then to be back filled to formation level using suitable granular fill material well compacted in layers not exceeding 225mm.
 - For minimum dimensions of access fittings, inspection chambers and manholes refer to table 11 and 12 of the building regulations part H1. For further details refer to manhole schedules and detail drawings. Maximum spacing requirements for access points to be in accordance with table 13 of the building regulations part H1.
 - All branch drain runs from soil vent pipes, stub stacks, air admittance valves and floor gullies to be laid at a minimum gradient of 1:40 and be 100mm diameter unless otherwise stated. Refer to table 6 of the building regulations part H1 for clarification. For rain water pipes from roofs then the gradient for the below ground connection should be laid at a minimum gradient of 1:100 and be 100mm diameter unless otherwise stated. Refer to paragraph 3.15 of the building regulations part H3.
 - All covers in private areas for pedestrians and inaccessible to wheeled vehicles should be group 1 class A15 or class 2 B125, and in vehicular areas group 3 class C250 or group 4 class D400.
 - All soil vent pipe, stub stacks, air admittance valves and rain water pipe locations have been transcribed from the architects drawings. For actual locations refer to architectural plans and elevations. Architect to advise on final positions of rainwater pipes and foul water outlets.
 - Existing sewers which are or will be disused/abandoned are to be traced, and any drain which shows signs of flow should be investigated fully to establish its origin and authenticity, and reported to the engineer prior to undertaking any associated works. No sewer shall be abandoned until the contractor has confirmed that there are no connections remaining.
 - Any existing drains/sewers to be disused/abandoned to be stopped up at the appropriate connection point using type ST2 concrete.
 - Surface water from private areas is not to be discharged onto public highway.
 - Drainage channels to be as "ACO" or similar approved with grating class suitable for proposed location. Refer to manufacturer for complete system requirements and installation guidelines.

IMPORTANT NOTE:
SECTION 106 CONNECTION ITO BE APPROVED BY ANGLIAN WATER PRIOR TO COMMENCING ANY DRAINAGE WORKS.

IMPORTANT NOTE:
INVERT LEVEL OF SW6 AND FW4 HAS BE ASSUMED AND WILL NEED TO BE CONFIRMED BEFORE ANY CONSTRUCTION WORK TAKE PLACE.

IMPORTANT NOTE:
LOCATION OF EXISTING SEWER TO BE CONFIRMED BEFORE ANY DRAINAGE WORK TAKES PLACE. NEW MANHOLES TO BE BUILT ON AN EXISTING SEWERS, INVERT LEVEL TO BE CONFIRMED.

IMPORTANT NOTE:
ALL RUNS RUNNING UNDER GROUND FLOOR SLAB TO HAVE A MAX FALL OF 1:40.

CDM 2015 RESIDUAL RISKS

THE POSITIONS OF UNDERGROUND SERVICES SHOWN ON THIS DRAWING HAVE BEEN TAKEN FROM ORIGINAL SURVEY INFORMATION. AS SUCH THE LOCATION OF SERVICES SHOULD BE CONSIDERED AS APPROXIMATE AND DO NOT NECESSARILY CONSTITUTE A FULL REPRESENTATION OF ALL SERVICES ACROSS THE SITE.

PRIOR TO UNDERTAKING ANY WORKS, REFERENCE SHOULD BE MADE TO ALL THIRD PARTY INFORMATION INCLUDING SITE O&M MANUALS, SITE GPR SURVEYS, ETC, AND ACCURATE SERVICES SURVEYS CONDUCTED TO CONFIRM THE VALIDITY OF THE INFORMATION PRESENTED HERE AND THAT HELD ON FILE.

ONCE ESTABLISHED, SERVICE ROUTES SHOULD BE CLEARLY DEMARKED ON THE GROUND AND APPROPRIATE SIGNAGE/WARNINGS POSITIONED TO HIGHLIGHT THESE TO THE CONSTRUCTION WORKFORCE.

GROUND CONDITIONS MAY VARY ACROSS THE SITE AS WELL AS THE STABILITY OF ANY EXCAVATIONS AND BATTERS. CONTRACTOR IS TO SEEK ADVICE FROM A GEO-TECHNICAL ENGINEER SHOULD GROUND CONDITIONS BE DIFFERENT FROM THOSE EXPECTED.

CONTRACTOR TO ENSURE NO ADJACENT STRUCTURES ARE UNDERMINED, SHOULD ANY EXISTING LEVELS VARY FROM THOSE ANTICIPATED CONTRACTOR TO INFORM THE ENGINEER.

IF THERE ARE ADJACENT STRUCTURES IN CLOSE PROXIMITY TO THE SITE. CONTRACTOR TO ENSURE SAFE WORKING PRACTICE TO PROTECT ADJACENT BUILDINGS.

MH REF	COVER LEVEL	INVERT LEVEL	DEPTH (m)	MH DIA.	MH TYPE	COVER TYPE	NOTES
SW1	46.677	44.877	1.800	450 Ø	PPIC	B125	
SW2	46.680	45.012	1.668	450 Ø	PPIC	B125	
SW3	46.665	44.943	1.722	450 Ø	PPIC	B125	
SW4	46.660	44.877	1.783	450 Ø	PPIC	B125	
SW5	46.801	44.700	2.101	1200 Ø	PC RING	D400	
SW6	46.562	44.600	1.963	1200 Ø	PC RING	D400	
SW7	46.677	44.930	1.747	450 Ø	PPIC	D400	
SW8	46.876	44.767	2.109	450 Ø	PPIC	D400	
SW9	46.578	44.909	1.670	450 Ø	PPIC	D400	
SW10	46.856	44.766	2.090	450 Ø	PPIC	D400	
SW11	46.795	45.958	0.837	450 Ø	PPIC	B125	
SW12	46.759	45.916	0.843	450 Ø	PPIC	B125	
SW13	46.764	45.826	0.938	450 Ø	PPIC	B125	
SW14	46.856	44.735	2.121	450 Ø	PPIC	D400	
SW15	46.753	44.945	1.808	450 Ø	PPIC	D400	
SW16	46.754	44.805	1.950	450 Ø	PPIC	D400	
SW31	46.731	45.864	0.867	450 Ø	PPIC	D400	

MANHOLE SCHEDULE: PROPOSED FW							
MH REF	COVER LEVEL	INVERT LEVEL	DEPTH (m)	MH DIA.	MH TYPE	COVER TYPE	NOTES
FW1	46.732	45.927	0.805	450 Ø	PPIC	D400	
FW2	46.730	45.674	1.056	450 Ø	PPIC	D400	
FW3	46.765	45.644	1.122	1200 Ø	PC RING	D400	
FW4	46.601	45.562	1.038	1200 Ø	PC RING	D400	
FW5	46.718	45.993	0.725	450 Ø	PPIC	D400	
FW6	46.712	45.979	0.733	450 Ø	PPIC	D400	
FW8	46.859	46.038	0.821	450 Ø	PPIC	D400	
FW9	46.841	45.996	0.845	450 Ø	PPIC	D400	
FW10	46.834	45.906	0.928	450 Ø	PPIC	D400	
FW11	46.717	46.025	0.892	450 Ø	PPIC	D400	
FW12	46.716	45.911	0.805	450 Ø	PPIC	D400	

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Project: **OLD VIENNA - 162 Eastwod Road, Leigh on sea, Essex, SS9 3AG**

Drawing Title: **Preliminary Drainage layout**

Drawing Status: **Preliminary**

Drawn by: MA	Checked by:	Sheet size: A1	Scale: 1:100
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