

SURFACE WATER (ADOPTABLE)

MH No.	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING (m)	NORTHING (m)
S1	1200	Type B	40.138	37.940	2.048	391326.835	163179.635
S2	1500	Type B	TBC	37.825	TBC	391316.577	163184.160

SURFACE WATER (PRIVATE)

MH No.	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING (m)	NORTHING (m)
PS1	-	Rodding Eye	39.968	39.400	0.418	391400.460	163080.244
PS2	450	PPIC	39.941	39.225	0.566	391398.067	163097.612
PS3	600	PPIC	39.973	39.055	0.693	391388.686	163096.320
PS4	600	PPIC	39.962	39.011	0.726	391382.726	163100.836
PS5	600	PPIC	39.963	38.973	0.765	391377.688	163104.654
PS6	600	PPIC	39.978	38.811	0.942	391373.953	163131.765
PS7	600	PPIC	39.964	38.766	0.973	391381.519	163132.807
PS8	-	Rodding Eye	40.022	39.350	0.522	391366.979	163149.317
PS9	600	PPIC	39.973	38.658	1.090	391379.015	163150.975
PS10	1200	Catchpit	40.002	38.575	1.202	391377.264	163158.191
PS11	300	PVC-U Gully	39.600	39.350	0.150	391357.280	163163.164
PS12	1200	Catchpit	39.961	38.190	1.471	391357.850	163155.516
PS13	-	Rodding Eye	39.960	39.400	0.410	391386.408	163076.231
PS14	450	PPIC	39.943	39.351	0.442	391381.564	163075.563
PS15	600	PPIC	39.981	39.084	0.672	391366.254	163087.164
PS16	600	PPIC	39.943	39.029	0.690	391358.786	163092.823
PS17	600	PPIC	39.993	38.820	0.948	391353.974	163127.750
PS18	600	PPIC	39.957	38.752	0.979	391342.631	163126.187
PS19	600	PPIC	40.003	38.636	1.142	391339.942	163145.692
PS20	-	Rodding Eye	39.988	39.350	0.488	391355.660	163147.757
PS21	600	PPIC	39.976	38.590	1.160	391347.498	163147.024
PS22	1200	Catchpit	40.031	38.150	1.581	391346.133	163156.930
PS23	1200	Type B	39.987	38.065	1.622	391345.022	163164.996
PS24	1200	Type B	40.034	38.030	1.704	391341.806	163171.944
PS25	1200	Flow Control	40.153	37.965	2.038	391328.776	163178.704
PS26	450	PPIC	39.851	38.691	1.010	391337.859	163155.790
PS27	450	PPIC	39.979	38.819	1.010	391349.030	163171.399

FOUL WATER (ADOPTABLE)

MH No.	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING (m)	NORTHING (m)
F1	1200x750	Type D	40.057	39.550	0.357	391376.745	163162.054
F2	450	Type D	40.062	39.015	0.897	391375.521	163167.272
F3	1200	Type B	39.979	37.650	2.179	391346.844	163167.667
F4	1200	Type B	40.064	37.445	2.468	391341.525	163174.165
F5	1200	Type A	TBC	36.850	TBC	391320.328	163186.399

FOUL WATER (PRIVATE)

MH No.	MANHOLE DIAMETER (mm)	MANHOLE TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)	EASTING (m)	NORTHING (m)
PF1	300	Access Point	39.974	39.100	0.724	391395.221	163078.202
PF2	450	PPIC	39.956	38.930	0.875	391381.769	163076.349
PF3	450	PPIC	39.955	38.744	1.062	391359.487	163093.234
PF4	450	PPIC	39.999	38.504	1.344	391354.580	163128.843
PF5	450	PPIC	39.992	38.428	1.414	391343.238	163127.280
PF6	450	PPIC	39.976	38.308	1.518	391340.787	163145.052
PF7	300	Access Point	39.991	38.800	1.041	391388.932	163095.193
PF8	450	PPIC	39.977	38.608	1.219	391376.706	163104.457
PF9	450	PPIC	39.982	38.432	1.400	391373.098	163130.637
PF10	450	PPIC	39.965	38.379	1.436	391381.011	163131.728
PF11	450	PPIC	39.970	38.254	1.566	391378.460	163150.243
PF12	450	PPIC	39.986	37.850	1.986	391349.753	163146.284

Existing Drainage

- Existing drainage to be used in the design or connected into shall be proven and cleaned in accordance with the building regulations and best practice guidance.
- All existing drainage systems shall be fully maintained throughout the works.
- Prior to connecting to any existing chambers or drains, trial holes shall be dug (as required) to verify connection levels. Any levels higher than the design or significantly lower should be brought to the attention of the Engineer.
- All existing sewers and manholes abandoned due to the proposed works are to be either removed and suitably backfilled, or grouted up.
- The Contractor shall obtain consent for direct connections to the existing water authorities network through a Section 106 application.

Site Drainage

- Prior to commencing work on the drainage, all existing drains, sewers, manholes, and outfalls to remain shall be located, identified, and a CCTV condition survey carried out. Where necessary, protection to the existing drainage infrastructure shall be provided.
- Drainage works to start at the outfall connection and work upstream. Any discrepancies of existing invert levels to be reported immediately as this may alter the design.
- The contractor shall be responsible for checking all tie-ins for line and level with existing foul and surface water systems before commencing any works.
- Temporary protection to be provided to drainage work during construction as necessary.
- All materials and workmanship related to private sewers shall be in accordance with Part H of the Building Regulations and BS EN 752 and best practice.
- All materials and workmanship related to adoptable sewers shall be in accordance with the Design and Construction Guidance 2020 as published by Water UK and any subsequent revisions shown by the water authority.
- All sustainable drainage systems to be designed and maintained in accordance with CIRIA C753 The SuDS Manual and best practice guidance.
- All drains in the vicinity of existing or proposed trees to be constructed in accordance with the requirements of NHBC Practice Note 3.
- Gully and channel gratings shall be ductile iron to BS EN 124, Load Class D400, and kitemarked.
- Manhole covers and frames to be ductile iron to BS EN 124 Class D400 in carriageways/trafficked areas and Class B125 in non-trafficked areas unless otherwise specified. Covers may be kitemarked and badged "SW" or "FW" as appropriate unless otherwise instructed by the water authority. Brick/brick infilled manhole covers are not to be used on adoptable manholes.
- The following types of pipe may be used unless noted or agreed otherwise:
 - Pipes up to 300mmØ to be Structured Walled to BS EN 13476, Polypropylene to BS EN 1852, PVC-U to BS EN 1401, or Vitrified Clay to BS EN 295.
 - Pipes over 300mmØ to be Concrete to BS 5911, Structured Walled to BS EN 13476, Polypropylene to BS EN 1852, or PVC-U to BS EN 1401.
- Both Clay and Concrete pipes shall be strength class 120 (100/150mm min crushing strength 29kN/m). Thermoplastic pipes shall have a minimum ring stiffness of SN4.
- Pipes which run adjacent to buildings shall be installed in strict accordance with Part H, Clauses 2.23 to 2.25. Diagrams 7 and 8 are of particular relevance and shall be complied with.
- All pipes, chambers, and fittings shall be installed, bedded, and backfilled in accordance with the manufacturers instructions subjects to the following minimum requirements table.

Location	Cover to crown	Bedding Clay/Concrete Pipe	Bedding Plastic Pipe	Backfill
Roads (HGV)	>1.2m <1.2m	Class S Class 'A' (Concrete)	Class S (S1 or 2) Class 'A' (Concrete)	Type 1 (Granular)
Drives/car parking	>0.9m <0.9m	Class S Class 'A' (Concrete)	Class S (S1 or 2) Class 'A' (Concrete)	Type 1 (Granular)
Hard and soft landscaping	>0.6m <0.6m	Class S Class 'A' (Concrete)	Class S (S1 or 2) Class 'A' (Concrete)	Suitable as dug material

- Pipes penetrating walls:
 - An opening is to be formed through walls to give pipes at least 50mm clearance all round. Brickwork over shall be supported by a lintel. Opening to be masked each side with rigid sheet material.
 - Pipes embedded in walls shall have joints formed within 150mm of either wall face. Adjacent rocker pipes of max 600mm length with flexible joints shall continue the pipework.
- All underfloor hung drainage to be ductile iron in accordance with BS EN 545:1994 and BS EN 588:1994 unless explicitly noted on the drawing.
- The first flexible joint in pipes adjacent to a manhole shall be max 600mm from inside face of manhole, connecting to rocker pipe. For pipes of 150-450mmØ, the rocker pipe length shall be 900mm-750mm and for pipes of 451-750mmØ the rocker pipe shall be 750mm-1000mm.
- Pipes shall be laid to their true line and level by laser or by boning each end and middle.
- All soft spots within pipe trenches shall be removed.
- No water shall be allowed to accumulate in pipe trenches during construction.
- All fill material shall be consolidated in layers not exceeding 225mm.
- All insitu concrete used in pipe protection shall consist of bitumen impregnated insulating board to BS 1142 at each pipe joint.
- All pipe runs to be laid with flexible joints.
- If the contractor finds any discrepancies in the information provided then they must notify the Engineer immediately before any materials are ordered or works undertaken.
- All under slab drainage at minimum 1:40 gradient.

Fixing Covers and Frames

- All new or reconstructed brickwork shall be a minimum of 225mm thick in English Bond, using Class B Engineering Bricks.
- Corbelling of brickwork should be no more than 30mm per course, in excess of this, corbelling shall be supported by 12.5mm thick galvanized steel plates.
- Depth of mortar joints in brickwork and under the ironwork shall be 5mm - 15mm. Where proprietary cementitious material or epoxy resins are used, depths should be in accordance with the manufacturers requirements.
- Fine adjustment in levels should be carried out in reduced thickness Class B Engineering Bricks, and should be laid below the final course of brickwork.
- The mortar and frame bedding material must be allowed sufficient time (minimum 10 days) to gain strength before it is subjected to any loading.
- Where it is necessary to subject the frame to loading within 24 hours, a proprietary cementitious material or epoxy resin should be used. This material should be capable of reaching a strength of 10M/mm² within 2 hours when used in accordance with the manufacturers instructions.
- Where Ordinary Portland cement mortar is used, it should comply with Class 1 mortar to SHW Clause 2404. Sands for mortar shall be washed sand complying with BS 1200 Table 1.

CDM Note

These drawings have been produced with reference to the CDM Regulations 2015.

Please note that these are pre-construction phase drawings and should be subject to further design risk management as required in accordance with Regulation 9.

The residual risks identified on the DRA / drawings are based on the information available at the time of design.

Any services information indicated on PJA drawings is obtained from third parties, and is given for guidance purposes only.

The exact location of any services will need to be verified by the client / contractor before commencing works on site.

General Notes

- Do not scale from this drawing.
- All dimensions in metres and levels in metres above ordnance datum Newlyn (mAOD) unless stated otherwise.
- This drawing is to be read in conjunction with all other relevant Engineering and Architect's details.
- The design details presented must be reviewed in conjunction with the wider site information and site constraints which may not be evident on drawing and must be requested if not already provided. This includes, but is not limited to, ground conditions (geotechnical and environmental), groundwater levels, buried services, remnant obstructions, ecology, tree protection, and topography.
- The Engineer shall be notified immediately, in writing, should any errors or discrepancies be found prior to the commencement or continuation of any works.
- Drawing is based on topographical survey conducted by Geopoint Ltd (ref. Geo22-132_T dated October 2022).
- Details of existing sewers are based on drainage survey undertaken by Solum Surveying Ltd (ref. 12676-R0 dated 21/06/2024).
- Site layout is based on RDT Architects drawing (ref. 13771-RDT-ZZ-XX-DR-A-1101 Rev P1 dated July 2024) provided by Aspire LPP on 01/08/2024.
- Building drainage points based on RDT Architects Proposed Drainage Sketch dated 31/07/2024 provided by Aspire LPP on 01/08/2024.
- Levels at site entrance based on tie-in to RGP S278 site access junction proposals (ref. 6804-RGP-ZZ-00-DR-C-0111 Rev P01 dated July 2024) provided by Aspire LPP on 25/07/2024.
- Where shown, root protection areas are based on those included within RDT Architects site layout (ref. 13771-RDT-ZZ-XX-DR-A-1100 Rev P2 dated July 2024) provided by Aspire LPP on 01/08/2024.
- All work is to be carried out in accordance with current British Standards, Building Regulations, and Sewerage Sector Guidance as appropriate.
- It is the responsibility of the Contractor to execute the works at all times in strict accordance with the requirements of the Health and Safety at Work Act 1974 and the CDM Regulations 2015. The Contractor will be deemed to have allowed for full compliance within their rates.
- Any existing details which are shown on this drawing are for guidance only and are to be checked on site by the Contractor. Any variations are to be recorded and reported to the engineer immediately.
- The Contractor shall undertake appropriate on-site investigations to confirm the presence of underground utilities prior to any excavation.

P4	25/10/2024	F2 AMENDED TO WESSEX WATER COMMENTS	JG	DS	JM
P3	30/09/2024	MINOR AMENDMENT AS CLOUDED	JG	DS	DMCC
P2	06/09/2024	UPDATED TO SUIT REVISED SITE LAYOUT	JG	DS	DMCC
P1	28/08/2024	UPDATED TO CLIENT COMMENTS	JG	DF	DMCC
P0	16/08/2024	FIRST ISSUE	JG	DS	

Rev	Date	Revision Note	Drw	Chk	App
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Client

Aspire LPP

Project

382 Longleaze Lane, Melksham

Title

Drainage Schedules

Drawing Issue Status

For Approval

PJA Ref 07040 Scale @ A1 1:250 Date 29.05.24

Drawing No. 07040-CE-0540 Revision P4

Primary Contact
joe.garlick@pja.co.uk