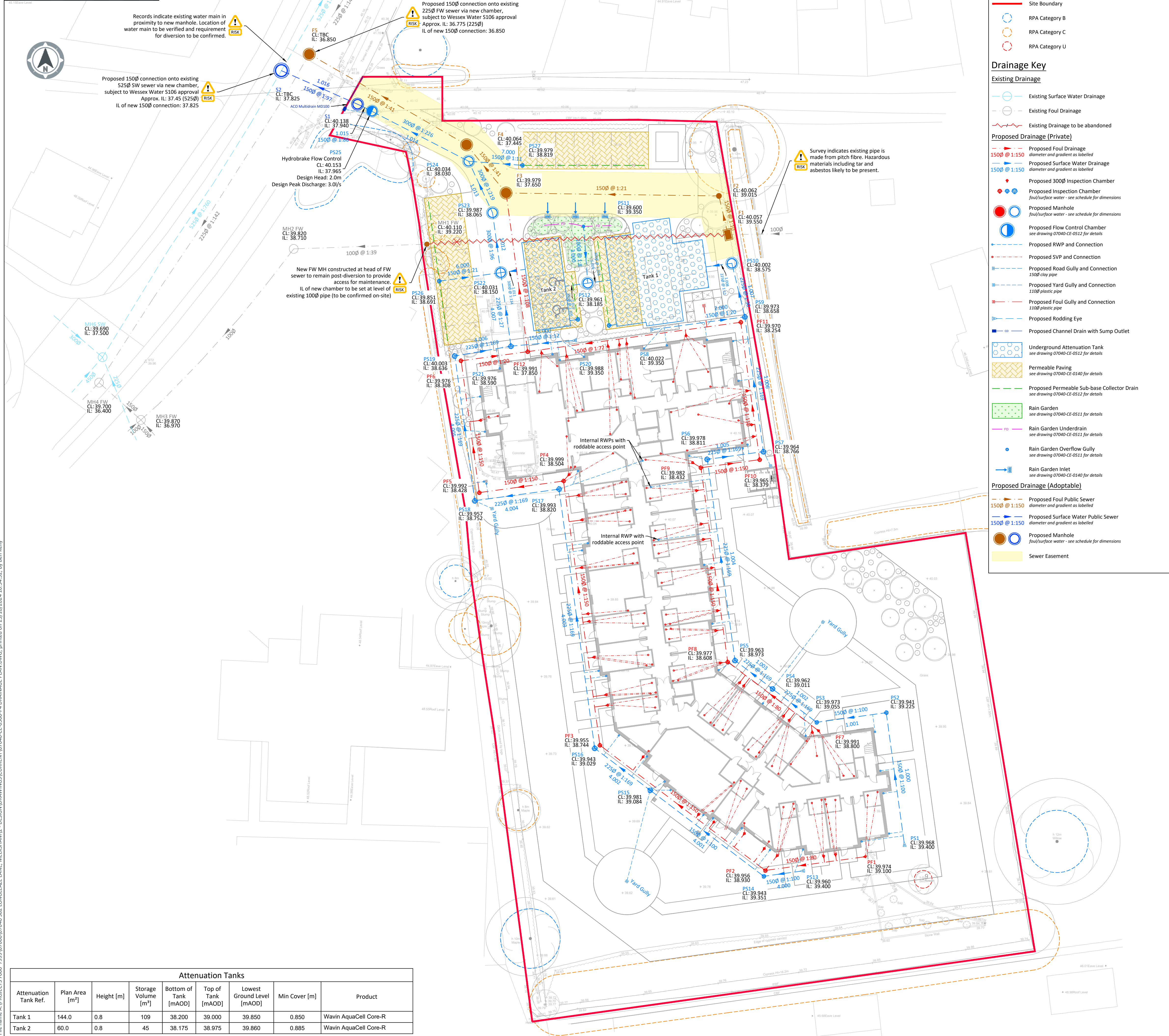




Key

- Site Boundary
- RPA Category B
- RPA Category C
- RPA Category U

Drainage Key

Existing Drainage

- Existing Surface Water Drainage
- Existing Foul Drainage
- Existing Drainage to be abandoned

Proposed Drainage (Private)

- Proposed Foul Drainage diameter and gradient as labelled
- Proposed Surface Water Drainage diameter and gradient as labelled
- Proposed 3000 Inspection Chamber
- Proposed Inspection Chamber foul/surface water - see schedule for dimensions
- Proposed Manhole foul/surface water - see schedule for dimensions
- Proposed Flow Control Chamber see drawing 07040-CE-0512 for details
- Proposed RWP and Connection
- Proposed SVP and Connection
- Proposed Road Gully and Connection 1500 clay pipe
- Proposed Yard Gully and Connection 1100 plastic pipe
- Proposed Foul Gully and Connection 1100 plastic pipe
- Proposed Rodding Eye
- Proposed Channel Drain with Sump Outlet
- Underground Attenuation Tank see drawing 07040-CE-0512 for details
- Permeable Paving see drawing 07040-CE-0140 for details
- Proposed Permeable Sub-base Collector Drain see drawing 07040-CE-0512 for details
- Rain Garden see drawing 07040-CE-0511 for details
- Rain Garden Underdrain see drawing 07040-CE-0511 for details
- Rain Garden Overflow Gully see drawing 07040-CE-0511 for details
- Rain Garden Inlet see drawing 07040-CE-0140 for details

Proposed Drainage (Adoptable)

- Proposed Foul Public Sewer diameter and gradient as labelled
- Proposed Surface Water Public Sewer diameter and gradient as labelled
- Proposed Manhole foul/surface water - see schedule for dimensions
- Sewer Easement

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 MHCB 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 2.2.2 to 2.2.5. 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

19. For 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.

20. 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.

21. 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 500mm-750mm and for pipes of 451-750mmØ the rocker pipe shall be 750mm-1000mm.

22. Pipes shall be laid to their true line and level by laser or by boning each end and middle.

23. All soft spots within pipe trenches shall be removed.

24. No water shall be allowed to accumulate in pipe trenches during construction.

25. All fill material shall be consolidated in layers not exceeding 225mm.

26. All insitu concrete used in pipe protection shall consist of bitumen impregnated insulating board to BS 1142 at each pipe joint.

27. All pipe runs to be laid with flexible joints.

28. 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.

29. All under slab drainage at minimum 1:40 gradient.

Fixing Covers and Frames

30. All new or reconstructed brickwork shall be a minimum of 225mm thick in English Bond, using Class B Engineering Bricks.

31. 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.

32. 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.

33. 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.

34. The mortar and frame bedding material must be allowed sufficient time (minimum 10 days) to gain strength before it is subjected to any loading.

35. 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/m² within 2 hours when used in accordance with the manufacturers instructions.

36. 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	EASEMENT AMENDED AS AGREED WITH WESSEX WATER	JG	DS	JM
P3	30/09/2024	MINOR AMENMENT AS CLOUDED	JG	DS	DMCC
P2	06/09/2024	UPDATED TO SUIT REVISED LAYOUT	JG	DS	DMCC
P1	28/08/2024	UPDATED TO CLIENT COMMENTS	JG	DF	DMCC
PO	16/08/2024	FIRST ISSUE	JG	DS	
Rev	Date	Revision Note	Drw	Chk	App

PJA

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Client

Aspire LPP

Project

382 Longleaze Lane, Melksham

Title

Drainage Plan

Drawing Issue Status

For Approval

PJA Ref 07040 Scale @ A1 1:250 Date 29.05.24

Drawing No. 07040-CE-0500 Revision P4

Primary Contact joe.garlick@pja.co.uk