

Private Drainage Notes

- This drawing is to be read in conjunction with and checked against all other drawings, engineering details, specification and any structural, geotechnical or other specialist documents provided.
- All lateral connections for house drainage shall be 100mm unless stated otherwise and must extend a minimum of 500mm behind the back of the footpath.
- All pipes to be vitrified clay or UPVC and shall be 100mmØ laid to a fall of 1:80 unless noted otherwise or indicated by size and invert levels. All connections when laid shall be plugged, protected as necessary and marked with a stake for future use.
- Building drainage shall comply with BS 8301 1985, BS EN 752 and Building Regulations Part H. Inspection chambers located within garages to have double seal bolt down covers.
- Gully top and manhole cover specification to be in accordance with BS EN 124 and located in accordance with the intended use and loading classification as described within groups 1-6:
- This drawing is schematic for clarity only, positions of pipe runs and manholes may vary on site due to site conditions.
- Connections to pre-formed inspection chamber bases should ensure the main channel is used in all cases. High velocity discharges (e.g. from SVPs) should use the main channel where practicable.
- Cover and invert levels are indicative and may vary on site. In any case the following minimum cover to depth of cover to the crown of pipes without protection shall be as follows:
 - 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 weight in excess of 7.5 tonnes - 0.5m
 - Domestic driveways, parking areas and narrow streets without footways (e.g Mews developments) with limited access for vehicles with a gross weight in excess of 7.5 tonnes - 0.9m
 - Agricultural land and public open space - 0.9m
 - Other highways and parking areas with unrestricted access to vehicles with a gross weight in excess of 7.5 tonnes - 1.2m

Note: any protection required where drainage does not comply with a-e above shall be as follows:-

- Vitrified clay pipes - provide a 100 mm min. thick concrete bed and surround (instead of class 'S' bedding) and a 13 mm thick compressible filler at each joint.
- UPVC pipes - provide a concrete bridging (in addition to class 'S' bedding) in accordance with appendix A15, Building Regulations part 'H'.

Note: in-situ concrete used in connection with a) and b) above shall be standard mix GEN3 in accordance with BS 5328.

- Drainage runs should be laid at a minimum of 5m from the rear of properties where practicable to allow for future extensions.
- Where pipes pass under buildings, unless beam & block floors are used, they are to be surrounded in concrete.
- All branch drains, or connections, are to discharge to the collectors obliquely, and in the direction of the main flow.
- Finished floor levels (FFL's), assumed to be typically a minimum of 150mm above finished ground level outside, refer to architects drawing for details.
- All new private shallow 225mm diameter surface water and foul inspection chambers and rodding eyes shown without cover levels (CL) shall be assumed to be at external ground level, and invert levels (IL) are to be typically between 450 and 600mm below CL, subject to the length of the internal house connections.
- All low spots on hardstanding areas to have double gullies.
- Prior to topsoiling of rear gardens, the gardens should be reworked, rotated or decompacked to a depth of 600mm. Once this is carried out, no plant is to access these areas, any further consolidation of subsoil to be reworked as necessary. Before reworking or rotating the Contractor is to mark all drain runs in the area.
- Pipe bedding to be Class 'S' bedding (100mm granular bed and surround).
- Excavations for manholes, pipe runs etc located within a 45 degree load distribution splay from any adjoining existing foundations, are to be adequately supported for the duration of the works and building drainage protected.
- Foundations adjacent to pipe runs or manholes are to have their formation level set above the invert level no higher than the equivalent of the horizontal distance between the pipe/excavation trench and the foundation, minus 500 mm.
- Where excavations for pipe runs are parallel and in close proximity to each other and/or other service trenches, the contractor shall ensure that adequate safety measures, including temporary shoring, are provided in line with current health & safety Legislation and good practice. Particular attention is to be paid to adjacent trenches of differing invert levels.
- All existing drainage found on site during the works shall be investigated, its operational status confirmed, and the following applied:-
 - Inoperative drainage shall be cut back and pipe runs filled with concrete gROUT.
 - 'Live' drainage shall be temporarily re-routed to allow the new drainage to be constructed.
- Where existing drainage is to be re-used including road, building and external drainage systems, the contractor shall ensure that all chambers and drainage runs are cleaned, de-silted and made good.
- Covers to existing chambers to be re-used shall be replaced where necessary to suit proposed development loading class, see note 5. Chamber covers shall also be adjusted to suit final ground levels as necessary.
- Where necessary, existing chambers shall be re-benched to suit new pipework arrangement.
- The Contractor shall consider and take adequate measures to ensure surface water runoff during construction is managed to prevent pollution of surface water receptors and increased flood risk.

Private Surface Water Drainage Legend
(Dimensions are approx. internal sizes).

- New Adoptable Surface Water Sewer to be constructed in accordance with Sewers for Adoption 6th Edition
- New Adoptable Surface Water Manhole (size and construction may vary), to be built in accordance with Sewers for Adoption 6th Edition
- New Private Surface Water Inspection Chamber 225mm dia. polypropylene or vitrified clay up to 600mm deep.
- New Private Surface Water Inspection Chamber 450mm dia. polypropylene up to 3000mm deep. Max pipe diameter 150mm.
- New Private Surface Water Inspection Chamber either 1200mm dia. precast concrete, or 1200 x 750mm precast concrete, or 1200 x 750mm class B engineering brickwork over 1500mm deep.
- New Private Yard Gully.
- New Private Channel Drain.
- New Private Rodding Eye.
- New Private Water Butt
- Private Geocellular Storage Tanks
- Tanked Permeable Block Paving
- Permeable Paving Inlet Diffuser box
- Permeable Paving 1500 perforated pipe
- Proposed Backdrop
- Finished Floor Level
- Retaining Wall
- Gravel Board
- Slab On Edge
- Log Sleeper Retaining Wall

Private Foul Drainage Legend
(Dimensions are approx. internal sizes).

- New Adoptable Foul Sewer to be constructed in accordance with Sewers for Adoption 6th Edition
- New Adoptable Foul Manhole (size and construction may vary), to be built in accordance with Sewers for Adoption 6th Edition.
- New Private Foul Drain.
- New Private Foul Inspection Chamber 225mm dia. polypropylene or vitrified clay up to 600mm deep. Max pipe diameter 150mm
- New Private Foul Inspection Chamber 450mm dia. polypropylene up to 3000mm deep. Max pipe dia. 150mm
- New private foul inspection chamber either 1200mm dia. precast concrete, or 1200 x 750mm Class B Engineering Brickwork over 1500mm deep.
- New Private Yard Gully to bin / waste storage areas

Important Drainage Notes:

Prior to installation of any new drainage the contractor shall:

- Confirm line and level of all outfall manholes. Where the depths of these manholes are insufficiently deep for any new connection from the site, the engineer shall be informed immediately.
- Ensure all relevant consents for sewer connections are in place :-
- ICOSA Water S106 sewer connections
- Confirm line and level of existing drainage outfalls. Level of connection subject to confirmation that no clashing occurs with any of the existing sewers or services, contractor to re-level if necessary.

FOR ADAPTABLE DRAINAGE LEVELS, REFER TO DRAWINGS
00382-1130-1133-C-AFP - S104 Drainage Layout Sheets 1 to 3

FOR PRIVATE DRAINAGE LEGEND AND NOTES
REFER TO DRAWING 00382-1153-C-DRA

Cellular Tank Notes

- This drawing shall be read in conjunction with the Org No 00382-1130-1132-C-AFP S104 Drainage Layout
- The design of the tank shall be undertaken by the specialist manufacturer in accordance with CIRIA 737 to include but not limited to lateral and vertical loadings and flotation. Full consideration shall be given to the site specific ground conditions and groundwater levels.
- Geocellular tank to be fully sealed, ie. tanked attenuation system
- Minimum cellular tank void ratio to be 95%.
- Refer to tank notes on plan for attenuation volumes, tank heights, & plan areas.
- Tank dimensions shown are the minimum required, refer to manufacturers details for actual dimensions.
- Tank to be laid at 1:300 falls to outlet.
- All outlet pipes from tanks to be 225Ø minimum.
- Refer to tank notes on plan for minimum cover and maximum cover levels
- Subject to manufacturers recommendations, access turrets to be provided at all four corners and one centrally as indicated.
- Ventilation to be provided as required by manufacturer.
- No trees shall be planted within 5m of attenuation tank.
- The contractor shall undertake flotation calculations for construction stage works and provide all necessary mitigation to counter flotation of tank.

General Notes

- Where this drawing has been issued in electronic .dwg format, it has been done so in good faith. JNP Group do not take any responsibility for any inaccuracies in the electronic data, which should be checked against the paper (or .pdf) drawing issue. Any apparent discrepancies should be immediately reported to JNP Group. The electronic .dwg file should not be assumed to be to scale and should not be used for 'overlying', setting out or checking of any third party information. All dimensions should be taken from the paper (or .pdf) version of the drawing. Electronic drawings may contain third party information. JNP Group take no responsibility for this information, which should be checked against the originators paper drawing(s).
- All dimensions are millimetres (mm), and levels are in metres (m) unless noted otherwise and should be checked on site prior to construction/fabrication.
- Do not scale from this drawing. Only figured dimensions are to be relied upon. Don't hesitate to get in touch with JNP Group if additional information is required.
- Any discrepancies between drawings of different scales and between drawings and specifications, where appropriate, to be reported to JNP Group for decision.
- Copyright reserved. This drawing may only be used for The Client and location specified in the title block. It may not be copied or disclosed to any third party without the prior written consent of JNP Group.
- This drawing should only be used for construction if the drawing status is "A4 - Approved/Stage Complete". JNP Group takes no responsibility for construction works undertaken to drawings that are not marked with this status.

Health & Safety Note

The details on this drawing have been prepared on the assumption that a competent contractor will be carrying out the works. If the contractor(s) considers that there is insufficient Health and Safety information on this drawing, this should immediately be brought to the attention of the designer.

Rev	Date	Description	Drawn / Checked / Approved
C01	07/08/2025	Wetland HT/ASHP locations updated. Eastern POS area updated to suit latest landscaping details.	CPIA/KKM
P03	28/02/2025	Updated to latest planning layout	JLN/KMKM
P02	07/01/2025	Job Title Updated	JO/CPR/KM
P01	24/12/2024	First issue.	JLN/CPR/KM

Stability: S4 - Suitable for Stage Approval

Client Logo:



JNP GROUP
CONSULTING ENGINEERS

Amersham • Brighouse • Bristol • Glasgow
Hartlepool • Sheffield • Warwick

www.jnpgroup.co.uk

Client:	Cala Homes Thames Ltd	Revision:	C01
Job:	Finchwood Park - Phase 5		
Title:	Private Drainage Layout Sheet 1 of 8		
Classification:	FL_60_20 Scale of A1: 1:200	Accredited Contractor	Register to clients
	00382-1153-C-DRA		