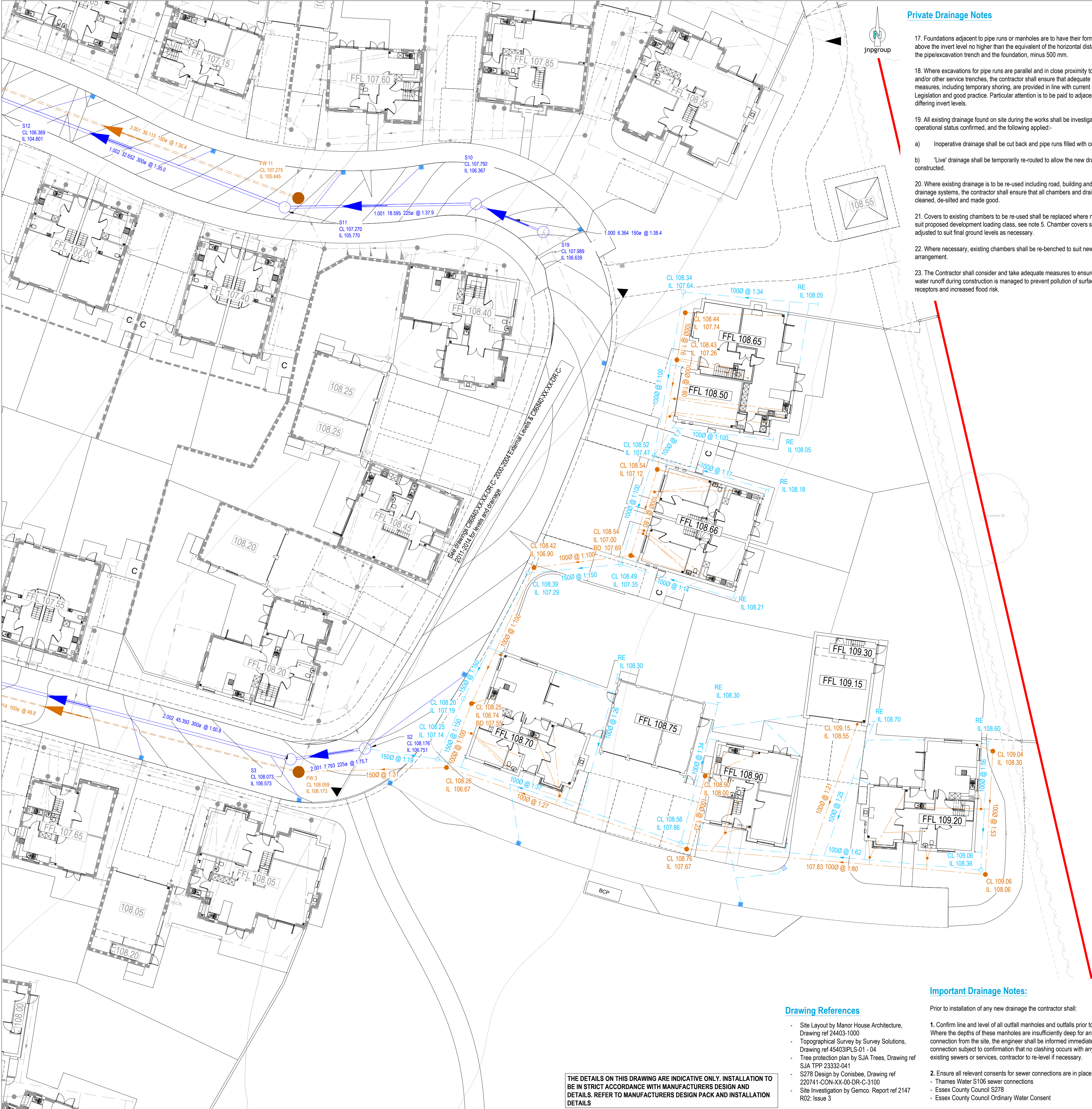




Private Drainage Notes

17. 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.
18. 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.
19. All existing drainage found on site during the works shall be investigated, its operational status confirmed, and the following applied:-
- a) Inoperative drainage shall be cut back and pipe runs filled with concrete grout.
- b) 'Live' drainage shall be temporarily re-routed to allow the new drainage to be constructed.
20. 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.
21. 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.
22. Where necessary, existing chambers shall be re-benched to suit new pipework arrangement.
23. 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.

Drainage Legend
(Dimensions are approx. internal sizes).

- Site boundary
- FFL XX.XXX Plot finished floor level DPC level, refer to architects details
- XX.XX Garage finished floor level DPC level, refer to architects details
- New adoptable foul sewer to be constructed in accordance with SSG Appendix C, DCG.
- New adoptable foul manhole (size and construction may vary), to be built in accordance with SSG Appendix C, DCG.
- 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 450mm dia. with backdrop, polypropylene up to 3000mm deep. Max pipe dia. 150mm
- New adoptable surface water sewer to be constructed in accordance with SSG Appendix C, DCG
- New adoptable surface water manhole (size and construction may vary), to be built in accordance with SSG Appendix C, DCG
- 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
- Private road gully
- New private yard gully
- New private rodding eye

Private Drainage Notes

1. 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.
2. All lateral connections for house drainage shall be 100mm unless stated otherwise and must extend a minimum of 500mm behind the back of the footprint.
3. 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.
4. 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.
5. 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.
6. This drawing is schematic for clarity only, positions of pipe runs and manholes may vary on site due to site conditions.
7. Connections to pre-formed inspection chamber bases should ensure the main channel is used in all cases. High velocity discharges (e.g. from SVP's) should use the main channel where practicable.
8. 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:
- a. Domestic gardens and pathways without any possibility of vehicular access - 0.35m
- b. 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
- c. 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
- d. Agricultural land and public open space - 0.9m
- e. 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:-
- a) 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.
- b) 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.
9. Drainage runs should be laid at a minimum of 5m from the rear of properties where practicable to allow for future extensions.
10. Where pipes pass under buildings, unless beam & block floors are used, they are to be surrounded in concrete.
11. All branch drains, or connections, are to discharge to the collectors obliquely, and in the direction of the main flow.
12. 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.
13. All low spots on hardstanding areas to have double gullies.
14. Prior to topsoiling of rear gardens, the gardens should be reworked, rotovated or decompacted 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 rotovating the Contractor is to mark all drain runs in the area.
15. Pipe bedding to be Class 'S' bedding (100mm granular bed and surround).
16. 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.

Important Drainage Notes:

- Prior to installation of any new drainage the contractor shall:
1. Confirm line and level of all outfall manholes and outfalls prior to the works. Where the depths of these manholes are insufficiently deep for any new connection from the site, the engineer shall be informed immediately. Level of connection subject to confirmation that no clashing occurs with any of the existing sewers or services, contractor to re-level if necessary.
2. Ensure all relevant consents for sewer connections are in place :
- Thames Water S106 sewer connections
- Essex County Council S278
- Essex County Council Ordinary Water Consent

Drawing References

- Site Layout by Manor House Architecture, Drawing ref 24403-1000
- Topographical Survey by Survey Solutions, Drawing ref 45403PLS-01 - 04
- Tree protection plan by SJA Trees, Drawing ref SJA TPP 23332-041
- S278 Design by Conisbee, Drawing ref 220741-CON-XX-00-DR-C-3100
- Site Investigation by Gemco, Report ref 2147 R02: Issue 3

THE DETAILS ON THIS DRAWING ARE INDICATIVE ONLY. INSTALLATION TO BE IN STRICT ACCORDANCE WITH MANUFACTURERS DESIGN AND DETAILS. REFER TO MANUFACTURERS DESIGN PACK AND INSTALLATION DETAILS

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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.

HAZARD IDENTIFICATION BOX			
This table is provided to assist the Principal Contractor to fulfil their obligations under the CDM Regulations 2015			
Hazard Ref	Hazard Type	Hazard Description	Mitigation Measures/ Residual Risk
▲			

Rev	Date	Description	Drw / Chk'd / App'd
Stability:			
S3 - Suitable for Review & Comment			

Client Logo:

Bellway

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Client:	Bellway Homes Ltd (North London)				
Job:	Hares Leap, Henham, Essex				
Title:	Private Drainage Layout (Additional 6 Plots)				
Classification:	FI 60_20				
Scale @ A1:	1:200				
					
		Accredited contractor			
					
		Constructionline Approved			
					
		BSI Registered			
Project - Originator - Volume/System - Level/location - Type - Discipline - Number					
C86840-JNP-92-XX-DR-C-2039					
Revision:					
P05					
Document Drawing Number					
Concept/JNP Group Ltd. 2020		JNP Group Internal Project Number: C86840			