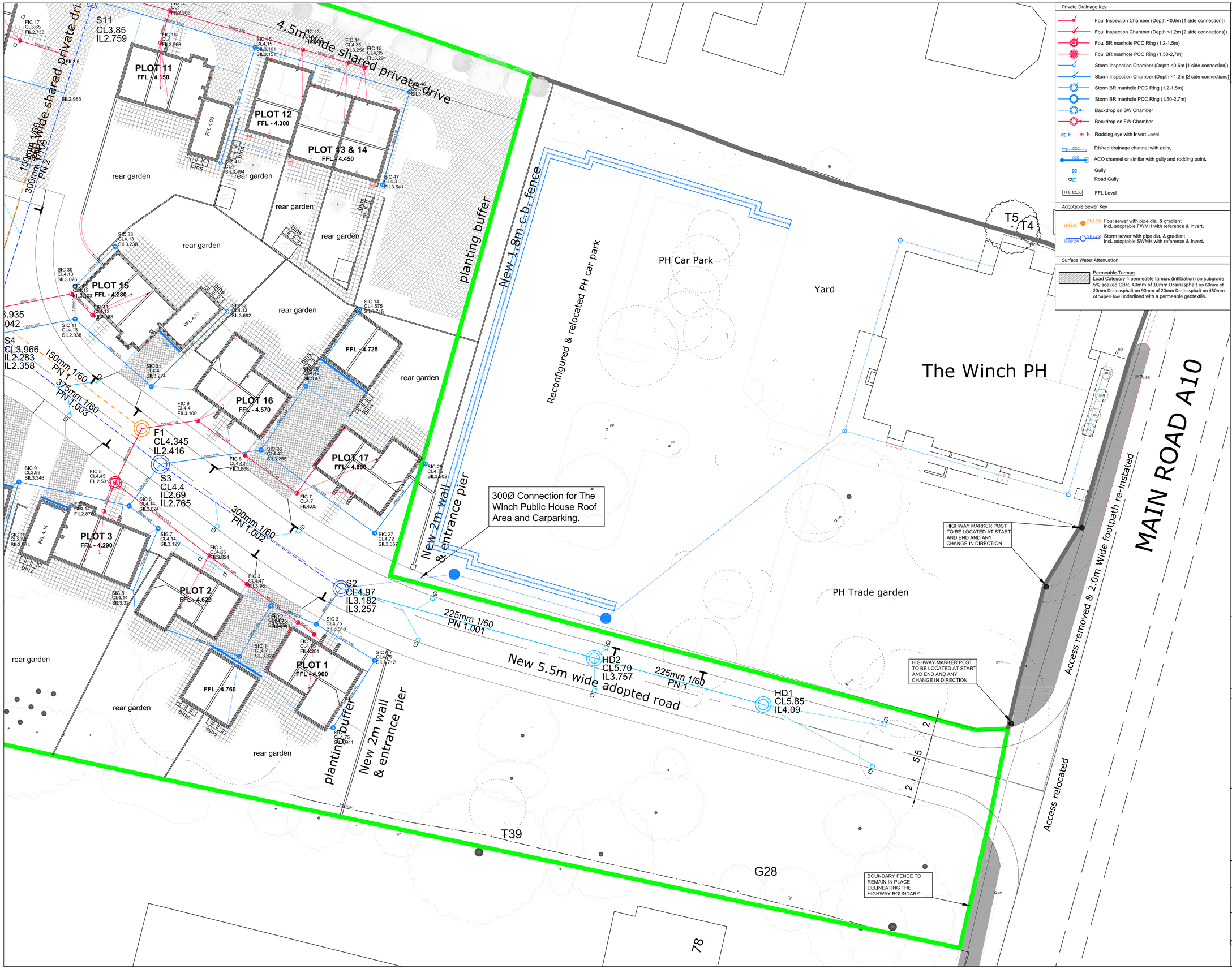


## Private Drainage Key

- Foul Inspection Chamber (Depth <0.6m [1 side connection])
- Foul Inspection Chamber (Depth <1.2m [2 side connections])
- Foul BR manhole PCC Ring (1.2-1.5m)
- Foul BR manhole PCC Ring (1.50-2.7m)
- Storm Inspection Chamber (Depth <0.6m [1 side connection])
- Storm Inspection Chamber (Depth <1.2m [2 side connections])
- Storm BR manhole PCC Ring (1.2-1.5m)
- Storm BR manhole PCC Ring (1.50-2.7m)
- Backdrop on SW Chamber
- Backdrop on FW Chamber
- RE / RE — Rodding eye with Invert Level
- DDC — Dished drainage channel with gully.
- ACO — ACO channel or similar with gully and rodding point.
- Gully
- Road Gully
- FFL 12.50 — FFL Level

## Adoptable Sewer Key

- 150@83 FI(1.80) — Foul sewer with pipe dia. & gradient incl. adoptable FWMH with reference & Invert.
- 225@156 SI(2.25) — Storm sewer with pipe dia. & gradient incl. adoptable SWMH with reference & Invert.

## Surface Water Attenuation

Permeable Tarmac
Load Category 4 permeable tarmac (infiltration) on subgrade 5% soaked CBR, 40mm of 10mm Drainasphalt on 60mm of 20mm Drainasphalt on 90mm of 20mm Drainasphalt on 450mm of SuperFlow underlined with a permeable geotextile.

## North Arrow

N W E S

## NOTES

1. The contractor shall check all tie-ins for line and level with existing before commencing any works. The Engineer shall be notified immediately, in writing, should any errors be found.
2. Any discrepancies, of whatever nature, must be reported to the Engineer prior to the commencement or continuance of any further works.
3. All private drainage works to be in accordance with the requirements of Building Regulations 2010, Part H, "Drainage and waste disposal", (01st October 2015).
4. All pipes to be bedded and backfilled in accordance with Part H, Diagram 10. Shallow pipes shall be protected in accordance with Part H, Diagram 11.
5. Unless otherwise stated, all private drainage to be 100mm diameter. Gradients have been shown where there are pipe capacity issues and these should be regarded as minimums. Unless there are constraints dictating otherwise, gradients shall generally be 1 in 60. 100mm diameter pipes shall not be laid flatter than 1 in 80, 150mm diameter pipes shall not be laid flatter than 1 in 150.
6. All pipes, chambers and fittings to be installed strictly in accordance with the manufacturers instructions.
7. Pipes which run adjacent to buildings shall be installed in strict accordance with Part H, Clauses 2.23 to 2.25 and Diagram 8.
8. All private manholes, inspection chambers and drainage channels to comply with BS EN124. Cover strengths to be:
   Class D400 in heavy trafficked areas (access roads, service yards etc.)
   Class C250 in lightly trafficked areas (car parks, ditveways etc)
   Class B125 in Non trafficked areas
   Class A15 in landscaping areas
9. All drains in the vicinity of existing or proposed trees to be constructed in accordance with the requirements of NHBC Practice Note 3.
10. Private drainage frames must be tied to manhole risers by use of manufacturers ties (e.g. Polypipe ref. FRK500 fixing kit and FRK501 black ties.) The ground works contractor will be held fully responsible for any accidents due to incorrect fitting or failure to use the correct manufacturers fixing equipment.
11. All existing land drains encountered on site during construction to be re-connected.
12. Should any departure from the slab level be considered, agreement shall be sought from the Engineer immediately and prior to commencement or continuance of any works, and should take full account of all restrictions to the slab level.
13. Garage slabs relate to the finished level of the concrete at the front entrance of the garage.
14. Where a drive slopes towards a garage there is to be a 75mm ramp up to the garage slab.
15. Maximum gradients of gardens to be 1 in 6 (unless stated otherwise), except for designed banking works.
16. All dimensions in metres unless otherwise stated.
17. As underlying ground conditions may be variable across the site the Contractor shall undertake onsite porosity tests at the location and depth of each soakaway. Tests should be undertaken in accordance with BRE365 and results forwarded to the Engineers to allow verification of designs.
18. All existing services, sewers and drains indicated on this drawing and any other related drawings are shown only indicatively, and shall have their positions and level confirmed on site by the Contractor.
19. The invert levels of all existing sewers, drains, ditches, tanks or other features and apparatus where a new connection is to be made shall have their precise position and level confirmed on site by the Contractor prior to commencement of any construction work. The results of the investigations shall be confirmed to MTC Engineering (Cambridge) Ltd so that the design can be verified.

**NOTE:**
At the location of the proposed lateral connection the contractor shall establish the position and depth of any existing services to prevent any clash in level and abortive costs.

**Anglian Water Notes**

All S.104 adoptable drainage shall conform to the design and construction guide for developers, Sewers for Adoption 6th Edition published by WRc plc and any AWSL additions & deletions current at the time of execution.

All covers and frames on adoptable AW sewers are to be D400, kitemarked and be badged 'FW' or 'SW' accordingly. Suppliers shall be Stanton, Paul Savage, Norinco or Wrekin.

All connections to adoptable sewers will be made in vitrified clay, to be a minimum of 100mm diameter and be connected at soffit to soffit level.

Adoptable pipework shall be to the following specification:

Clayware: BS EN 295-1:1991
150 dia. Crushing Strength 34kN/m
225 dia. Class 160

Concrete: BS EN 5911-1:2002
>300 dia. Class 120

| REV | DATE | DESCRIPTION/REASON FOR ISSUE | APPR |
|---|---|---|---|
| B | 01.05.19 | FWS AND SWS REVISED | JTC |
| A | 02/04/19 | UPDATED LAYOUT | AO |


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TITLE
The Winch, 70 Main Road
West Winch, Norfolk
Proposed Drainage Plan
Sheet 1 of 2

| ORIG | DATE |
|---|---|
| J.T.C | November 2018 |
| CHKD | SCALE 1/200 @ A1 |
| APPR | DRAWING NO 2274-05 REV B |


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