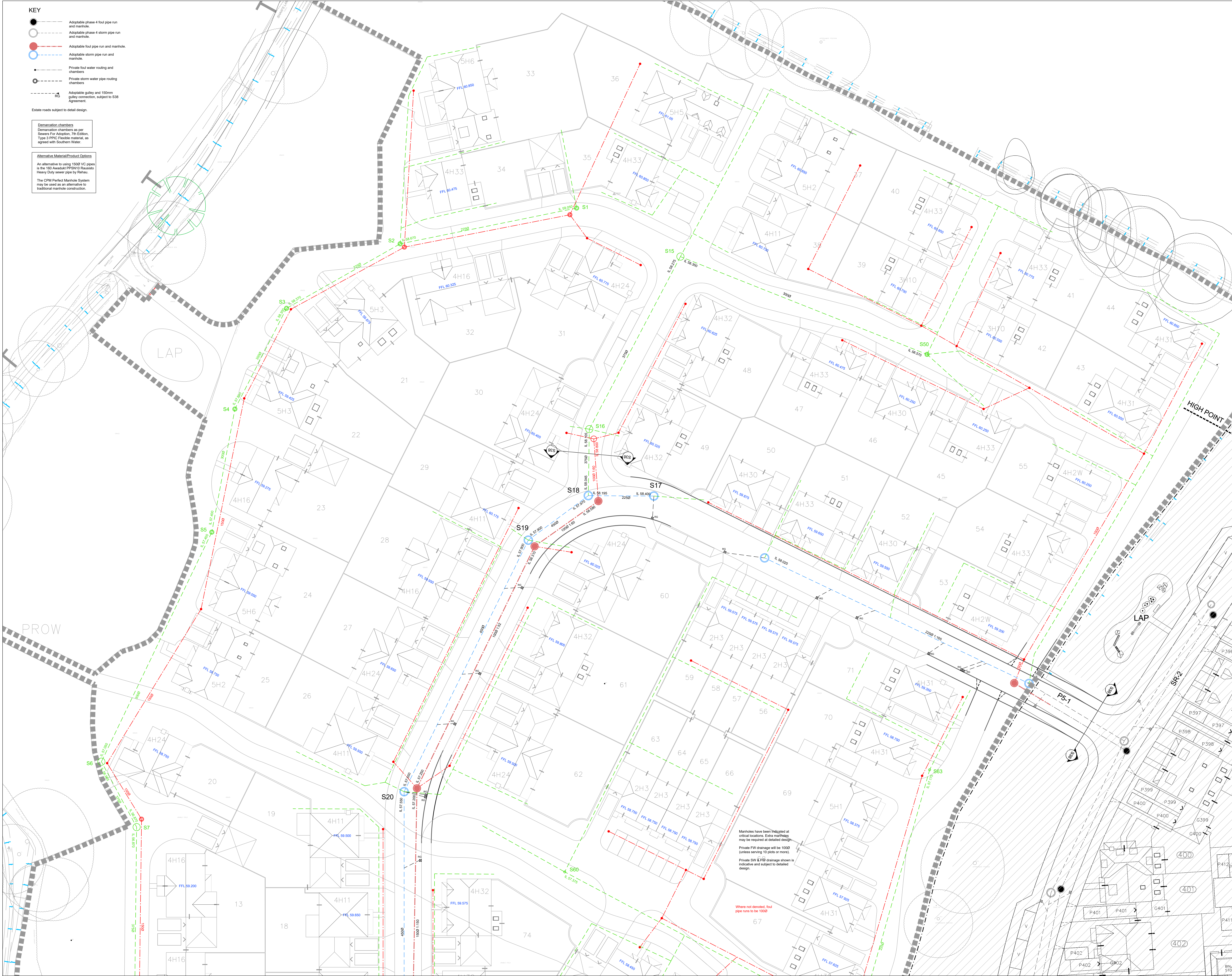




- KEY**
- Adoptable phase 4 foul pipe run and manhole
 - Adoptable phase 4 storm pipe run and manhole
 - Adoptable foul pipe run and manhole
 - Adoptable storm pipe run and manhole
 - Private foul water routing and chambers
 - Private storm water pipe routing chambers
 - Adoptable gully and 150mm gully connection, subject to S38 Agreement
 - RS
 - Estate roads subject to detail design

Demarcation chambers
Demarcation chambers as per Sewers For Adoption, 7th Edition, Type 3 FPRC Flexible material, as agreed with Southern Water.

Alternative Material/Product Options
An alternative to using 1500 VC pipes is the 1500 Aseptic PPEN10 Round Heavy Duty sewer pipe by Retau. The CPRI Perfect Manhole System may be used as an alternative to traditional manhole construction.

CONTRACT DOCUMENT

Notes

- GENERAL NOTES**
- For details of gradients and routes of house drainage connections refer to house drainage layout drawings.
 - This drawing to be read in conjunction with the standard Details, Schedules and the specification for this project.
 - All manholes and gullies are to be positioned at the changes given on the long-sections.
 - All connections to house drainage shall be 100mm unless stated otherwise and must extend a minimum of 500mm behind the back of the footpath. All connections when laid shall be plugged, protected as necessary and marked with a stake for future use.
 - Connections into existing sewers to be "SOFFIT TO SOFFIT" unless noted, otherwise on the longitudinal sections.
 - The contractor is to check the level of existing sewers to be used as out-fall immediately they are exposed PRIOR to laying of pipes. Any discrepancies are to be reported to the Engineer. SFA 6 Notes
 - Inter AX covers & frames, as manufactured by Stanton Plc are to be used on all adoptable manholes. Covers to be embossed with either FW or SW to suit (only if to be adopted)
 - Cover and Reducing slabs, shaft and chamber rings to be bedded with mortar proprietary bitumen or resin mastic sealant. All lifting holes to be pointed.
 - Chamber Diameters

Size of largest pipe in ft (mm)	Size of chamber ring (mm)
Less than 375	1000
375-750	1200
750-900	1500
Over 900	2000

Above sizes are minimum and may need increasing for more than one incoming pipe to accommodate adequate bedding.

 - Concrete mix to be in accordance with the chemical analysis report for buried concrete for the site concerned.
 - High strength topping to S.S. 8204 to be brought up to a dense smooth face neatly shaped and finished to all branch perpendiculars. Benching slope to be not flatter than 1 in 30.
 - Rocker/short pipe lengths

Pipe dia. (mm)	Rocker pipe length (m)
150-300	0.4
375-750	0.6
Over 750	1.25

Rocking pipes to be in accordance with SFA 6 Notes

 - Manhole to large diameter sewers. Chambers with outgoing pipes greater than 300mm dia. to be fitted with guard bars, safety chains or other safety devices. Toe holes to be provided in bedding of sewers greater than 600mm dia. for access to invert.
 - Bricks to be solid type and either class B engineering to B.S. 3921 or special purpose concrete bricks to B.S. 6073 with Sulphate-resisting Portland cement binder. Brickwork to be in English bond.
 - Brick Manhole Widths. Chamber widths to be increased for pipes larger than 225mm dia. to give 225mm benching each side with the brickwork collared down to suit cover.
 - All pipes built into manhole invert should be installed with soffits level.
 - PIPE BEDDING AND BACKFILL MATERIALS** Granular bedding and saddle Type A material shall be imported or selected as dug material complying with the recommendations of WIs. No. 4-24-02. Selected fill Type B shall consist of uniform, readily compressible material, free from vegetable matter, building rubble and frozen materials, or materials susceptible to spontaneous combustion, and excluding clay of liquid limit greater than 80 and/or plastic limit greater than 35 and materials of excessively high moisture content. Clay lumps and stones retained on 75mm and 37.5mm sieves respectively shall be excluded from the fill material. Pipe bedding and fill materials to concrete pipes shall not contain more than 0.3% sulphate, expressed as sulphur trioxide. A concrete slab is required when there is less than 500mm over cover.
 - TRENCH WIDTHS**

Pipe dia. (mm)	BC (mm)	BD (mm)
150	180	600
225	240	600
300	300	600
375	360	1000
450	420	1000
525	480	1000
600	540	1000
750	720	1500
900	900	1500
1050	1140	2000
1200	1260	2000
1350	1500	2400

 - All Adoptable Drainage Works shall comply with the requirements of Sewers for Adoption 6th Edition and the relevant Water Authority's Addendum, Unless noted otherwise.
 - All Adoptable Drainage pipes to be of spigot & socket type connection.
 - All dimensions in millimetres unless specified otherwise.
 - All pipes to be either: Verified Clay pipes to EN206 (BS558) and are to be Extra Strength. Concrete pipes to BS5911.

Rev Description Date

Status: PRELIMINARY

Scale: 1:250 @AOL

Date: Nov 2019

Drawn: IDL

Checked: DLC

Approved: PT

Title: Drainage Layout Sheet 1 of 2

Project: Southwater, Phase 5

Org. No: IDL/760/P5/03/01

Rev: 760-P5-03

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