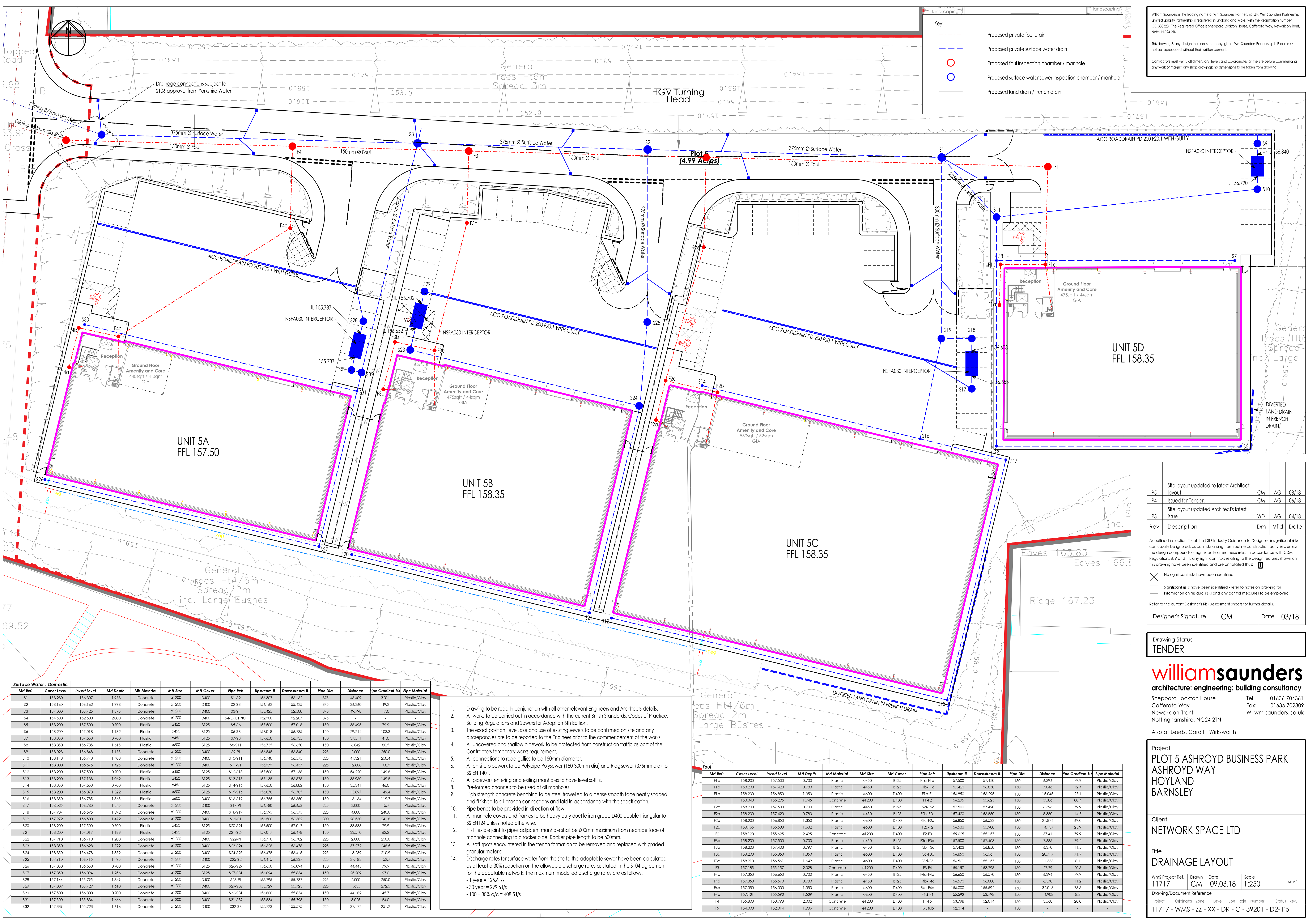




William Saunders is the trading name of Wm Saunders Partnership LLP. Wm Saunders Partnership Limited Liability Partnership is registered in England and Wales with the Registration number OC 38823. The Registered Office is Sheppard Lockton House, Cafferata Way, Newark-on-Trent, Notts. NG24 2TN.

This drawing & any design thereon is the copyright of Wm Saunders Partnership LLP and must not be reproduced without their written consent.

Contractors must verify all dimensions, levels and co-ordinates of the site before commencing any work or making any shop drawings: no dimensions to be taken from drawing.

Key:

- Proposed private foul drain
- Proposed private surface water drain
- Proposed foul inspection chamber / manhole
- Proposed surface water sewer inspection chamber / manhole
- Proposed land drain / french drain

Surface Water - Domestic												
MH Ref.	Cover Level	Invert Level	MH Depth	MH Material	MH Size	MH Cover	Pipe Ref.	Upstream IL	Downstream IL	Pipe Dia	Distance	Pipe Gradient 1:X
S1	158.280	154.307	1.973	Concrete	ø1200	D400	S1-S2	154.307	154.142	375	46.409	320:1
S2	158.140	154.142	1.998	Concrete	ø1200	D400	S2-S3	154.142	155.425	375	36.260	49:2
S3	157.000	155.425	1.575	Concrete	ø1200	D400	S3-S4	155.425	152.500	375	49.798	17:0
S4	154.500	152.500	2.000	Concrete	ø1200	D400	S4-EXISTING	152.500	152.207	375	-	-
S5	158.200	157.500	0.700	Plastic	ø450	B125	S5-S6	157.500	157.018	150	38.495	79:9
S6	158.200	157.018	1.182	Plastic	ø450	B125	S6-S8	157.018	156.735	150	29.244	103:3
S7	158.350	157.450	0.700	Plastic	ø450	B125	S7-S8	157.450	156.735	150	37.511	41:0
S8	158.350	156.735	1.615	Plastic	ø600	B125	S8-S11	156.735	156.450	150	6.842	80:5
S9	158.025	156.848	1.175	Concrete	ø1200	D400	S9-P1	156.848	156.840	225	2.000	250:0
S10	158.143	156.740	1.403	Concrete	ø1200	D400	S10-S11	156.740	156.575	225	41.321	250:4
S11	158.000	156.575	1.425	Concrete	ø1200	D400	S11-S13	156.575	156.457	225	12.808	108:5
S12	158.200	157.500	0.700	Plastic	ø450	B125	S12-S13	157.500	157.138	150	54.220	149:8
S13	158.200	157.138	1.062	Plastic	ø450	B125	S13-S15	157.138	156.878	150	38.960	149:8
S14	158.350	157.450	0.700	Plastic	ø450	B125	S14-S16	157.450	156.882	150	35.341	46:0
S15	158.200	156.878	1.322	Plastic	ø600	B125	S15-S16	156.878	156.785	150	13.897	149:4
S16	158.350	156.785	1.565	Plastic	ø600	D400	S16-S19	156.785	156.450	150	16.164	119:7
S17	158.025	156.780	1.245	Concrete	ø1200	D400	S17-P1	156.780	156.653	225	2.000	157:7
S18	157.987	156.915	1.392	Concrete	ø1200	D400	S18-S19	156.915	156.575	225	4.800	240:0
S19	157.972	156.500	1.472	Concrete	ø1200	D400	S19-S1	156.500	156.282	300	26.530	241:8
S20	158.200	157.500	0.700	Plastic	ø450	B125	S20-S21	157.500	157.017	150	38.583	79:9
S21	158.200	157.017	1.183	Plastic	ø450	B125	S21-S24	157.017	156.478	150	33.510	62:2
S22	157.910	156.710	1.200	Concrete	ø1200	D400	S22-P1	156.710	156.702	225	2.000	250:0
S23	158.350	156.428	1.722	Concrete	ø1200	D400	S23-S24	156.428	156.478	225	37.272	248:5
S24	158.350	156.478	1.872	Concrete	ø1200	D400	S24-S25	156.478	156.415	225	13.289	210:9
S25	157.910	156.415	1.495	Concrete	ø1200	D400	S25-S2	156.415	156.237	225	27.182	152:7
S26	157.350	156.450	0.700	Concrete	ø1200	B125	S26-S27	156.450	156.094	150	44.445	79:9
S27	157.350	156.094	1.256	Concrete	ø1200	B125	S27-S31	156.094	155.834	150	25.209	97:0
S28	157.144	155.795	1.349	Concrete	ø1200	D400	S28-P1	155.795	155.787	225	2.000	250:0
S29	157.339	155.729	1.610	Concrete	ø1200	D400	S29-S32	155.729	155.723	225	1.635	272:5
S30	157.500	156.800	0.700	Concrete	ø1200	D400	S30-S31	156.800	155.834	150	44.182	45:7
S31	157.500	155.834	1.666	Concrete	ø1200	D400	S31-S32	155.834	155.798	150	3.025	84:0
S32	157.339	155.723	1.616	Concrete	ø1200	D400	S32-S3	155.723	155.575	225	37.172	251:2

- Drawing to be read in conjunction with all other relevant Engineers and Architects details.
- All works to be carried out in accordance with the current British Standards, Codes of Practice, Building Regulations and Sewers for Adoption 6th Edition.
- The exact position, level, size and use of existing sewers to be confirmed on site and any discrepancies are to be reported to the Engineer prior to the commencement of the works.
- All uncovered and shallow pipework to be protected from construction traffic as part of the Contractors temporary works requirement.
- All connections to road gullies to be 150mm diameter.
- All on site pipework to be Polypipe Polysewer (150-300mm dia) and Ridgesewer (375mm dia) to BS EN 1401.
- All pipework entering and exiting manholes to have level soffits.
- Pre-formed channels to be used at all manholes.
- High strength concrete benching to be steel trowelled to a dense smooth face neatly shaped and finished to all branch connections and laid in accordance with the specification.
- Pipe bends to be provided in direction of flow.
- All manhole covers and frames to be heavy duty ductile iron grade D400 double triangular to BS EN124 unless noted otherwise.
- First flexible joint to pipes adjacent manhole shall be 600mm maximum from nearside face of manhole connecting to a rocker pipe. Rocker pipe length to be 600mm.
- All soft spots encountered in the trench formation to be removed and replaced with graded granular material.
- Discharge rates for surface water from the site to the adoptable sewer have been calculated as at least a 30% reduction on the allowable discharge rates as stated in the S104 agreement for the adoptable network. The maximum modelled discharge rates are as follows:
- 1 year = 125.6 l/s
- 30 year = 299.6 l/s
- 100 + 30% c/c = 408.5 l/s

MH Ref.	Cover Level	Invert Level	MH Depth	MH Material	MH Size	MH Cover	Pipe Ref.	Upstream IL	Downstream IL	Pipe Dia	Distance	Pipe Gradient 1:X	Pipe Material
F1a	158.200	157.500	0.700	Plastic	ø450	B125	F1a-F1b	157.500	157.420	150	6.396	79:9	Plastic/Clay
F1b	158.200	157.420	0.780	Plastic	ø450	B125	F1b-F1c	157.420	156.850	150	7.046	12:4	Plastic/Clay
F1c	158.200	156.850	1.350	Plastic	ø600	D400	F1c-F1	156.850	156.295	150	15.045	27:1	Plastic/Clay
F1	158.040	156.295	1.745	Concrete	ø1200	D400	F1-F2	156.295	155.625	150	53.86	80:4	Plastic/Clay
F2a	158.200	157.500	0.700	Plastic	ø450	B125	F2a-F2c	157.500	157.420	150	6.396	79:9	Plastic/Clay
F2b	158.200	157.420	0.780	Plastic	ø450	B125	F2b-F2c	157.420	156.850	150	8.380	14:7	Plastic/Clay
F2c	158.200	156.850	1.350	Plastic	ø600	D400	F2c-F2d	156.850	156.533	150	21.874	69:0	Plastic/Clay
F2d	158.165	156.533	1.632	Plastic	ø600	D400	F2c-F2	156.533	155.988	150	14.137	25:9	Plastic/Clay
F2	158.120	155.625	2.495	Concrete	ø1200	D400	F2-F3	155.625	155.157	150	37.41	79:9	Plastic/Clay
F3b	158.200	157.500	0.700	Plastic	ø450	B125	F3a-F3b	157.500	157.403	150	7.885	79:2	Plastic/Clay
F3c	158.200	157.403	0.797	Plastic	ø450	B125	F3b-F3c	157.403	156.850	150	6.370	11:5	Plastic/Clay
F3c	158.200	156.850	1.350	Plastic	ø600	D400	F3c-F3d	156.850	156.561	150	20.717	71:7	Plastic/Clay
F3d	158.210	156.561	1.649	Plastic	ø600	D400	F3d-F3	156.561	155.157	150	11.333	8:1	Plastic/Clay
F3	157.185	155.157	2.028	Concrete	ø1200	D400	F3-F4	155.157	153.798	150	27.79	20:5	Plastic/Clay
F4a	157.350	156.450	0.700	Plastic	ø450	B125	F4a-F4b	156.450	156.570	150	6.396	79:9	Plastic/Clay
F4b	157.350	156.570	0.780	Plastic	ø450	B125	F4b-F4c	156.570	156.000	150	6.370	11:2	Plastic/Clay
F4c	157.350	156.000	1.350	Plastic	ø600	D400	F4c-F4d	156.000	155.592	150	32.016	78:5	Plastic/Clay
F4d	157.121	155.592	1.529	Plastic	ø600	D400	F4d-F4	155.592	153.798	150	14.908	8:3	Plastic/Clay
F4	155.800	153.798	2.002	Concrete	ø1200	D400	F4-F5	153.798	152.014	150	35.68	20:0	Plastic/Clay
F5	154.000	152.014	1.986	Concrete	ø1200	D400	F5-Hub	152.014	-	150	-	-	-

P5	Site layout updated to latest Architect layout.	CM	AG	08/18
P4	Issued for Tender.	CM	AG	06/18
P3	Site layout updated Architect's latest issue.	WD	AG	04/18
Rev	Description	Drm	VFd	Date
As outlined in section 2.3 of the CIB Industry Guidance to Designers, insignificant risks can usually be ignored, as can risks arising from routine construction activities, unless the design compounds or significantly alters these risks. In accordance with CDM Regulations 8.9 and 11, any significant risks relating to the design features shown on this drawing have been identified and are annotated thus:				
☒ No significant risks have been identified.				
☐ Significant risks have been identified - refer to notes on drawing for information on residual risks and any control measures to be employed.				
Refer to the current Designer's Risk Assessment sheets for further details.				
Designer's Signature	CM	Date	03/18	

Drawing Status
TENDER

williamsaunders
architecture: engineering: building consultancy

Sheppard Lockton House
Cafferata Way
Nottinghamshire. NG24 2TN

Tel: 01636 704361
Fax: 01636 702809
W: wms-saunders.co.uk

Also at Leeds, Cardiff, Wksworth

Client
NETWORK SPACE LTD

Title
DRAINAGE LAYOUT

WmS Project Ref.	Drawn	Date	Scale	@ A1
11717	CM	09.03.18	1:250	

Drawing/Document Reference

Project	Originator	Zone	Level	Type	Role	Number	Status	Rev.
11717	WMS	ZZ	XX	DR	C	39201	D2	P5