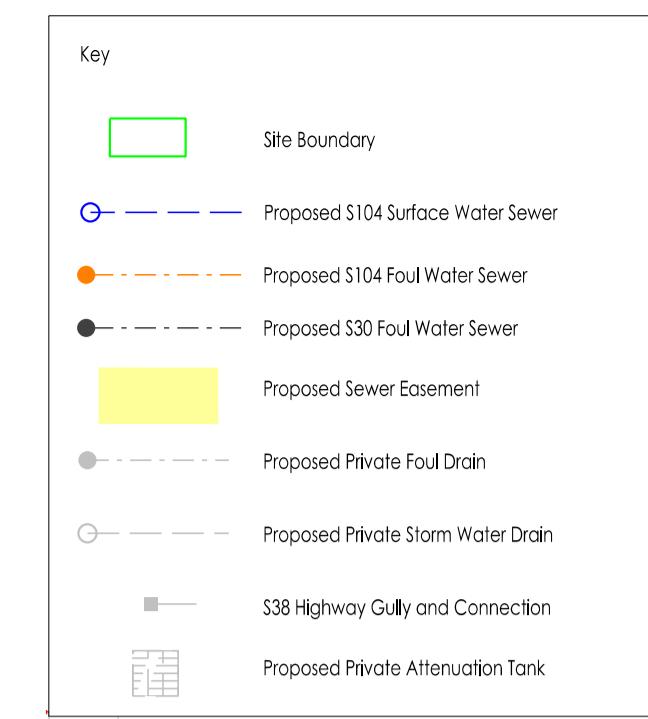


ADOPTABLE PIPELINE SCHEDULE: STORM						
Pipe Ref:	Upstream IL	Downstream IL	Pipe Dia	Distance	Pipe Gradient 1:X	Pipe Gradient %
1.000	1.987	1.908	450	31,418	397.7	0.25%
2.000	2.000	1.962	450	15,377	404.7	0.25%
2.001	1.962	1.908	450	21,463	397.5	0.25%
1.001	1.908	1.817	450	36,391	399.9	0.25%
3.000	1.908	1.865	450	17,327	403.0	0.25%
3.001	1.865	1.817	450	19,012	396.1	0.25%
1.002	1.817	1.712	450	42,027	400.3	0.25%
1.003	1.712	1.668	450	17,694	402.1	0.25%
4.000	1.782	1.736	450	18,850	409.8	0.24%
4.001	1.736	1.668	450	26,739	393.2	0.25%
1.004	1.668	1.503	450	66,021	400.1	0.25%
1.005	1.503	1.470	450	12,498	378.7	0.26%
5.000	2.164	2.073	225	15,389	169.1	0.59%
6.000	2.140	2.073	225	11,312	168.8	0.59%
5.001	1.848	1.710	450	55,040	398.8	0.25%
5.002	1.710	1.692	450	7,062	392.3	0.25%
7.000	1.737	1.711	450	10,382	399.3	0.25%
7.001	1.711	1.692	450	7,337	386.2	0.26%
5.003	1.692	1.651	450	16,500	402.4	0.25%
5.004	1.651	1.490	450	64,299	399.4	0.25%
8.000	1.602	1.577	450	10,099	404.0	0.25%
8.001	1.577	1.532	450	18,051	401.1	0.25%
8.002	1.532	1.490	450	16,606	395.4	0.25%
5.005	1.490	1.470	450	7,856	392.8	0.25%
1.006	1.448	1.425	450	6,420	279.1	0.36%
1.007	1.425	1.419	450	2,395	399.2	0.25%
1.008	1.419	1.400	450	7,505	395.0	0.25%

ADOPTABLE PIPELINE SCHEDULE: FOUL						
Pipe Ref:	Upstream IL	Downstream IL	Pipe Dia	Distance	Pipe Gradient 1:X	Pipe Gradient %
1.000	1.737	1.355	100	30,565	80.0	1.25%
1.001	1.355	0.915	100	35,212	80.0	1.25%
2.000	1.155	0.915	100	19,194	80.0	1.25%
1.002	0.865	0.602	150	39,483	150.1	0.67%
1.003	0.602	0.470	150	19,761	149.7	0.67%
3.000	0.849	0.520	100	26,328	80.0	1.25%
1.004	0.470	0.295	150	26,265	150.1	0.67%
4.000	1.726	1.409	150	47,609	150.2	0.67%
4.001	1.409	1.312	150	14,515	149.6	0.67%
4.002	1.312	1.200	150	16,735	149.4	0.67%
4.003	1.200	0.700	150	74,700	149.4	0.67%
4.004	0.700	0.515	150	27,736	149.9	0.67%
4.005	0.515	0.295	150	33,008	150.0	0.67%
1.005	0.295	0.200	150	14,155	149.0	0.67%

*ALL S104 WORKS DESIGNED IN ACCORDANCE WITH THE DESIGN & CONSTRUCTION GUIDANCE (DCG) WHICH IS PART OF THE SEWERAGE SECTOR GUIDANCE (SSG).



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



P7	\$30 sewer added (F14 - EXFMH, F1,005)	JW	P&E	17/09/24
P6	Overflow removed, Tanks 1&2 increased in size	JW	P&E	05/09/24
P5	Low flow channel added to basin, base level raised	JW	P&E	30/08/24
P4	Easement added to basin	JW	P&E	23/08/24
P3	Revised in accordance with AW comments, Eas-Base reference added, Manhole dia revised to suit eas-Base manhole sizes	JW	P&E	16/08/24
P2	Revised in accordance with AW comments	JW	P&E	03/08/24
P1	Initial Issue	JW	P&E	15/05/24
Rev	Description	Drn	Vf'd	Date

As outlined in section 2.3 of the CIBSE 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 **JW** Date **05/24**

Drawing Status **REGULATORY APPROVAL**

williamsaunders
architecture: engineering: building consultancy

Sheppard Lockton House
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Nottinghamshire, NG24 2TN

Also at Leeds, Lincoln, Wirksworth

Project

Residential Development,
Monks House Lane,
Spalding

Client

Seagate Homes (UK) Ltd.

Title

S104 Layout

WmS Project Ref. **12556** Drawn **JW** Date **05/24** Scale **1:500** @ A1

Drawing/Document Reference

Project Originator Zone Level Type Role Number Status Rev.

12556 - WMS - ZZ - XX - D - C - 39202 - S8 - P7

1. Drawing to be read in conjunction with all other relevant Engineers and Architects details.
2. All works to be carried out in accordance with the current British Standards, Codes of Practice, Building Regulations and DCG (SSG).
3. All uncovered and shallow pipework to be protected against construction traffic as part of the Contractors temporary works requirements.
4. Pipes of different diameters entering manholes should be installed with soffits of the same level.
5. Pre-formed chambers to be used at all manholes.
6. High strength concrete bollards to be steel trussed to a dense smooth face neatly shaped and finished to all branch connections and laid in accordance with the specification.
7. Pipe bends to be provided in direction of flow.
8. All manhole covers & frames to be heavy duty ductile iron grade D400 double triangular to BS EN 124 unless noted otherwise.
9. First flexible joint to pipes adjacent to a manhole shall be 600mm maximum from inside face of manhole to the start of the rocker pipe. Rocker pipe length to be 600mm (500-300mm dia).
10. All soft spots encountered in the trench formation to be removed and replaced with graded granular material.
11. All buried concrete must cater for Class 2 sulphate conditions in accordance with BRE Digest 363.
12. Pre-cast concrete manhole rings will not be cut under any circumstances. Other options, manhole built up with concrete or brick work to the top of the pipe.
13. All landscaping and tree planting existing or proposed to adhere to requirements of DCG (SSG).
14. A temporary screen/tilt to be fitted over the last new manhole before entering the existing sewer in accordance with DCG (SSG). The screen shall only be removed once the on-site construction has been completed.
15. Where pipe crossings occur plastic membrane to be used for protection to eliminate any chance of cross contamination.
16. In **F1** type covers should not be used, where a cover is located in an area of block paving the frame should be 150mm deep.
17. Cover and frames should be like marked.
18. Pipework up to and including 375mm dia to have a 3.0m easement taken from the centreline of the pipeline on each side up to a depth of 3.0m.
19. Protective concrete cover slabs to be used on pipes in non trafficked area which doesn't achieve 0.9/900mm cover and 1.2m/200mm cover in trafficked area.
20. The proposed materials for the pipework and manholes are suitable for the existing ground conditions on site.

Foul: S104

MH Ref:	Cover Level	Invert Level	Depth to Soffit	Pipe Dia	MH Type	MH Size	MH Cover	MH Diagram
F1	3.350	1.737	1.513	100	Type B	1200	1000	
F2	3.503	1.355	2.048	100	Type B	1200	1000	
F3	3.400	1.155	2.145	100	Type B	1500	1000	
F4	3.399	0.865	2.384	150	Type B	1500	1500	
F5	3.474	0.602	2.722	150	Type B	1500	1000	
F6	3.400	0.849	2.451	100	Type B	1500	1000	
F7	3.482	0.470	2.862	150	Type B	1500	1500	
F8	3.305	1.726	1.429	150	Type C	1200	1000	
F9	3.482	1.409	1.923	150	Type B	1500	1000	
F10	3.526	1.312</td						