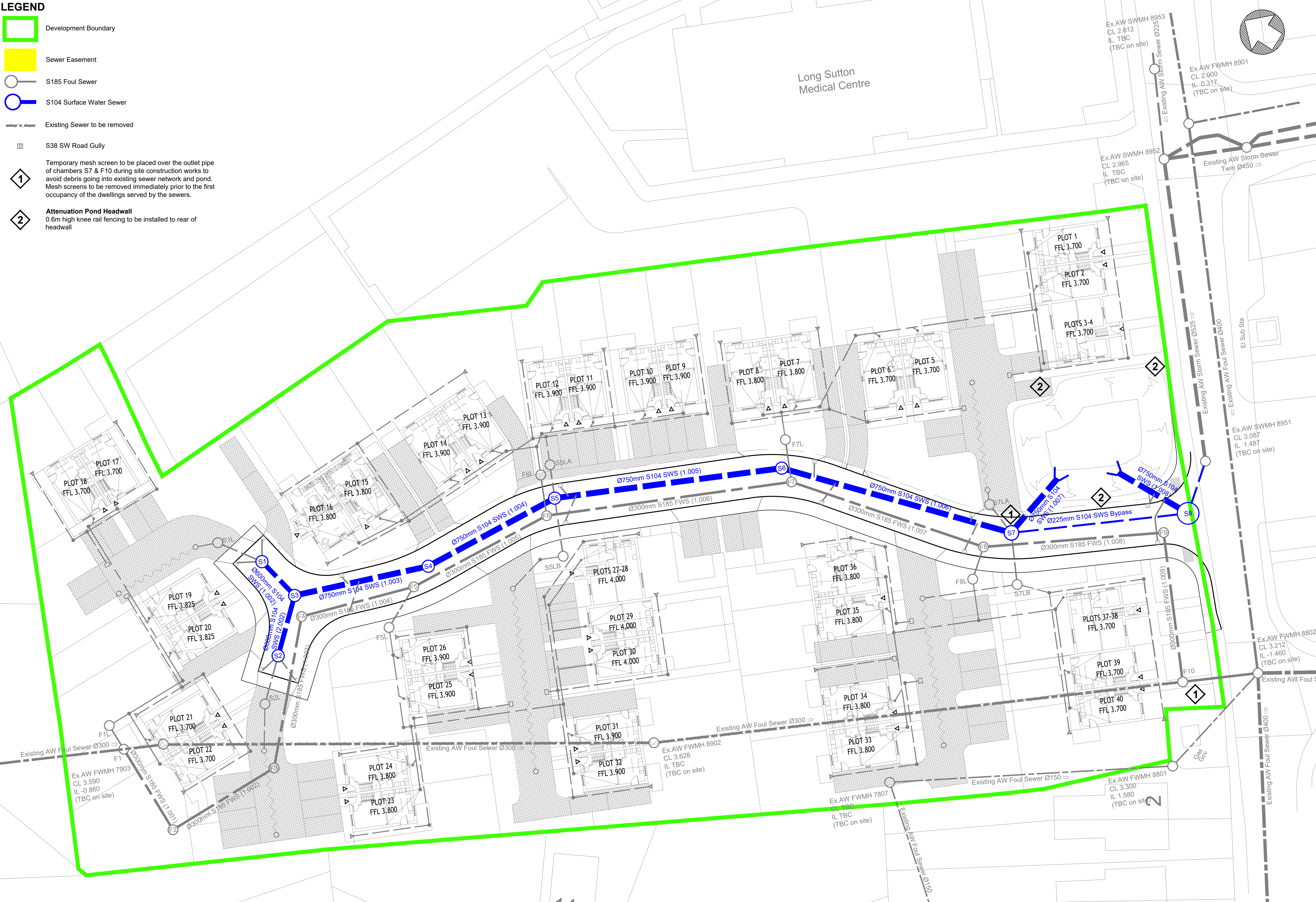


LEGEND

- Development Boundary
- Sewer Easement
- S185 Foul Sewer
- S104 Surface Water Sewer
- Existing Sewer to be removed
- S38 SW Road Gully

Temporary mesh screen to be placed over the outlet pipe of chambers S7 & F10 during site construction works to avoid debris going into existing sewer network and pond. Mesh screens to be removed immediately prior to the first occupancy of the dwellings served by the sewers.

Attenuation Pond Headwall
0.6m high knee rail fencing to be installed to rear of headwall



S104 Adoptable Manhole Schedule									
MH Ref	Cover Level	Invert Level	MH Depth (m)	MH Material	MH Size (mm)	MH Cover	Easting (m)	Northing (m)	
S1	3.864	2.157	1.507	Concrete	Ø1500	D400	542770.188	322988.327	
STL	3.700	2.248	1.451	Concrete	Ø1200	D400	542769.349	322994.585	
S2	3.678	2.161	1.518	Concrete	Ø1500	D400	542769.652	322980.157	
S3L	3.720	2.255	1.465	Concrete	Ø1200	D400	542754.325	322978.401	
S3	3.681	1.994	1.686	Concrete	Ø1500	D400	542768.668	322982.353	
S4	3.779	1.971	1.808	Concrete	Ø1500	D400	542780.874	322969.238	
S5	3.849	1.945	1.903	Concrete	Ø1500	D400	542797.082	322959.548	
S5LA	3.930	2.175	1.755	Concrete	Ø1200	D400	542800.522	322962.334	
S5LB	3.850	2.197	1.653	Concrete	Ø1200	D400	542791.087	322954.682	
S6	3.684	1.905	1.779	Concrete	Ø1500	D400	542815.757	322935.938	
S7	3.377	1.863	1.514	Concrete	Ø1800	D400	542823.921	322905.641	
STLA	3.550	1.995	1.555	Concrete	Ø1200	D400	542825.652	322910.019	
STLB	3.600	2.009	1.591	Concrete	Ø1200	D400	542818.477	322901.519	
S8	3.170	1.426	1.744	Concrete	Ø2700	D400	542838.026	322887.009	

Note: All pipe lengths, slopes and gradient percentages are based on centre of chamber to centre of chamber. Drainage contractor is responsible to check this information for construction purposes prior to any works

S104 Adoptable Pipe Schedule									
Pipe Ref	Upstream IL	Downstream IL	Pipe Dia. (mm)	Distance (m)	Pipe Gradient 1:X	Pipe Material			
CS In - CS Out	1.851	1.840	150	8.190	1:750.0	Plastic			
CS Out - S8	1.840	1.826	750	10.527	1:750.0	Concrete			
S1 - S3	2.157	2.144	600	6.190	1:500.0	Concrete			
S1L - S1	2.649	2.607	150	6.314	1:150.0	Plastic			
S2 - S3	2.161	2.144	600	8.215	1:500.0	Concrete			
S2L - S2	2.655	2.611	150	6.566	1:150.0	Plastic			
S3 - S4	1.994	1.971	750	17.985	1:750.0	Concrete			
S4 - S5	1.971	1.945	750	18.883	1:750.0	Concrete			
S5 - S6	1.945	1.905	750	30.103	1:750.0	Concrete			
S5LA - S5	2.575	2.545	150	4.427	1:150.0	Plastic			
S5LB - S5	2.597	2.545	150	7.720	1:150.0	Plastic			
S6 - S7	1.905	1.863	750	31.378	1:750.0	Concrete			
S7 - CS In	1.863	1.851	750	9.262	1:750.0	Concrete			
STLA - S7	2.395	2.363	225	4.708	1:150.0	Concrete			
STLB - S7	2.409	2.363	225	6.829	1:150.0	Concrete			
S8 - Existing	1.826	1.787	225	6.579	1:170.0	Unfilled Clay			

General Notes

- DO NOT SCALE.
- This drawing is to be read in conjunction with all other relevant drawings and details.
- Should there be any conflict between the details indicated on this drawing and those on other drawings the Engineer should be informed PRIOR to construction on site.
- Until technical approval has been obtained from the relevant Authority, it should be understood that all drawings issued are Preliminary and NOT for construction. Should the Contractor commence site work prior to such approval being given it is entirely at their own risk.
- Sketch proposals are for illustrative purposes only and as such are subject to detailed site investigation including ground conditions / contaminants, drainage, design and planning / density negotiations.
- All dimensions are in millimetres unless otherwise stated.
- The Farrow Walsh Consulting Designers Risk Assessments for this project must be reviewed PRIOR to the commencement of any works on site.

NOTES

- This drawing to be read in conjunction with all other relevant Engineers and Architect's details.
- All work is to be carried out in accordance with the current British D400s, codes of practice, building regulations and with Sewers for Adoption 8th Edition guidance.
- All drainage offered for adoption has been designed to not attenuate flows in excess of the 1:30 year return storm event.
- The exact position, level, size and use of existing sewers to be confirmed on site by the Contractor. Any discrepancies to be reported to the Engineer prior to commencement of works.
- All uncovered and shallow pipework to be protected against construction traffic as part of the Contractor's temporary works requirements.
- Exact location line and level of existing stubs to existing manholes in the road to be confirmed on site prior to construction.
- All connections to road gullies and channels shall be 150mm nominal bore pipework. No pipe work to be downsized in the direction of flow.
- Connections to foul terminal fittings to be 100mm nominal bore pipework subject to confirmation of above ground pipe diameters and/or design flow. No pipe work to be downsized in the direction of flow.
- All pipework to be U-PVC type in accordance with WIS 4-35-01 unless otherwise noted.
- All pipes connecting to adopted manholes up to and including 300mm dia. to be Wavin Ultraib or Polyipe Polysewer (See pipe Table A).
- All pipes connecting to adopted manholes greater than 300mm dia. to be Concrete or Polyipe Ridgesewer (max. Ø900mm, see pipe Table A).
- Pipes of different diameters entering manholes should be installed with soffits at the same level.
- 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.
- 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.
- All catchpits shall not be adopted.
- Pipe bends to be provided to suit direction of flow.
- All manhole covers to be 675x675mm cover and frame to maintain clear 600x600mm clear opening, unless otherwise stated, in accordance with BS EN 124. Class D400 kite marked covers and frames to be ductile iron heavy duty double triangular type, embossed 'FW' or 'SW' as appropriate, where applicable.
- All proposed manhole covers & frames at a minimum of 675x675mm to comply with Severn Trent Water Ltd current Health & Safety D400s.
- The use of infill covers and frames in block paved areas is not permitted in accordance with SFA 6th Edition, Section 2.9.6.
- All new drainage to be constructed adjacent new and proposed tree planting to be protected against root activity using 'rootcontrol' root barrier material by green-tech or similar approved. All tree positions to be in accordance with the SFA 6th Edition, Section B.2.3.
- First flexible joint in pipes adjacent to a manhole shall be 600mm max. From inside face of manhole, connecting to rocker pipe. For pipe diameters 150mm - 450mm the rocker pipe length shall be 500mm - 750mm and for pipe diameters 451mm - 675mm the rocker pipe length shall be 750mm - 1000mm.
- Manholes with outgoing pipes greater than 600mm dia. shall be fitted with guard bars, safety chains or other approved safety devices.
- Sewer easements at any change in width, these should be 2.5m to either side of the pipe for pipe sizes up to 300mm diameter, and 5.0m each side of the centre of the pipeline for pipes 300mm diameter or greater.
- Protective Concrete concrete slabs to be used on pipes in non-traffic area which doesn't achieve 0.9m/900mm cover level and 1.2/1200mm cover in traffic area.
- All Concrete pipework with cover less than 1.2m shall be to Class 120 and have Concrete slab protection.
- Where pipe crossing, Concrete membrane to be used for protection to eliminate any changes of cross contamination.
- The outside of the sewer should be in vehicle carriageway (not footpath) and be at least 1.0m away from the kerb line. The outside of manholes should be at least 0.5m away from the kerb line.
- All soft spots encountered in the trench formation to be removed and replaced with graded granular material unless instructed otherwise.
- Where the formation of a pipe trench is above original ground level, levels are to be made up with compacted DTP Type 2 material or better.
- All buried Concrete must cater for Class 2 sulphates conditions in accordance with Table 1 of BRE Digest 363.
- Concrete protection shall be provided to all pipes with less than 300mm cover in pedestrian areas, to all pipes with less than 600mm cover in private driveways not used by commercial vehicles, and to all pipes with less than 1200mm cover in roads or private driveways used by commercial vehicles. Where Concrete surround is specified flexibility of joints is to be maintained by using compressible bitumen impregnated fibreboard at each joint.
- All materials used are suitable for the ground conditions.
- The design of any temporary works required shall be the responsibility of the Contractor.
- Any discrepancies are to be recorded and reported to the Engineers immediately.
- All work is to be to the satisfaction of the Engineer and Severn Trent Water.
- The Contractor is responsible for and must take all necessary precautions to ensure the stability of the works at all times during construction.
- All services are to be located and protected as necessary by the Contractor prior to the commencement of the works.
- No backdrops to be used, steeper gradients are preferred to the use of backdrops.
- Type E manhole the opening cover and frame should be located centrally over the pipe. Refer to SFA 6th Edition Figure 2.8.
- Trees on the drawing are existing or proposed and adhere to B.2.3 (page 33) of sFA6. the trees specified will be as per sewers for adoption and positioned. Where Clearances with vegetation is not achievable, appropriate root protection will be provided.
- In situations where traffic loading is anticipated to be heavier than would occur on a typical residential estate road (i.e. braking or turning near a junction) a higher specification cover (E600) should be used.
- Lateral have been designed such as there wont be clashing or backdrops within the adoptable network

T1	Issued for Tender.	CC	CB	JD	18.04.19
Rev	Description of updates	Drawn	Checked	Approved	Date
Revision Schedule					

farrow walsh

ESTABLISHED 1994

62 Highcross Street, Leicester LE1 4NN
321 Bradford Street, Birmingham B5 6ET
0330 100 0363
www.farrowwalsh.com

TENDER

Client:
Kaplan Property Group

Project:
Station Road,
Long Sutton

Title:
Section 104 Layout

Drawn: CC	Checked: CB	Approved: JD	Date: April 2019	Scale: 1:250 @ A1
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Drawing No. FW1733-D-402	Revision: T1
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