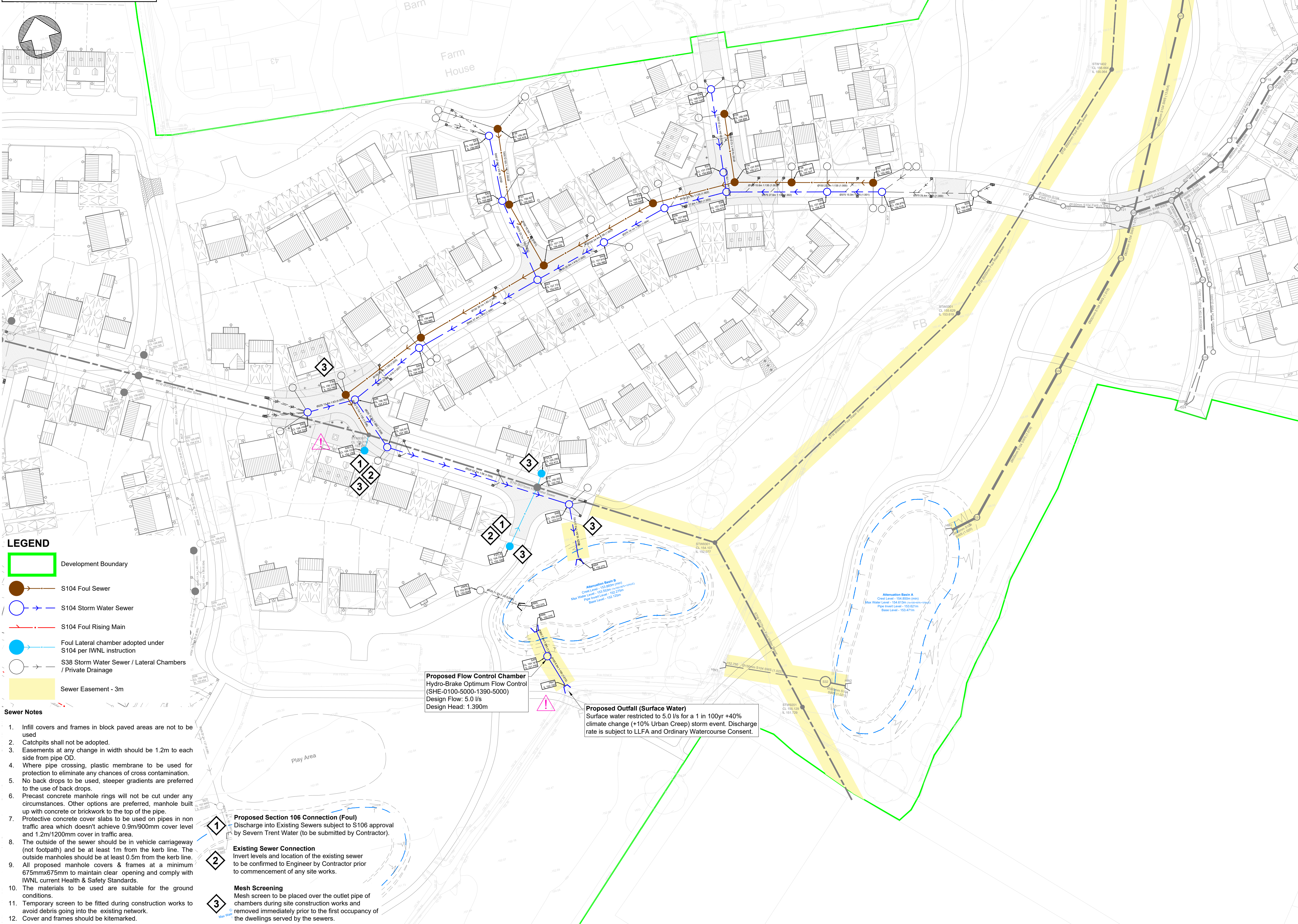


SAFETY, HEALTH AND ENVIRONMENTAL HAZARD INFORMATION BOX THE HAZARDS NOTED BELOW ARE IN ADDITION TO THE NORMAL HAZARDS AND RISKS FACED BY A COMPETENT CONTRACTOR WHEN DEALING WITH THE TYPES OF WORKS DETAILED ON THIS DRAWING.	
CONSTRUCTION RISKS	
EXISTING LIVE DRAINAGE EXISTING WATERCOURSE	
MAINTENANCE / CLEANING RISKS	
NONE RELEVANT TO THIS DRAWING.	
DEMOLITION RISKS	
NONE RELEVANT TO THIS DRAWING.	



- General Notes
1. DO NOT SCALE.
 2. This drawing is to be read in conjunction with all other relevant drawings and details.
 3. 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.
 4. 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.
 5. 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.
 6. All dimensions are in millimetres unless otherwise stated.
 7. 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 Standards, codes of practice, building regulations and the Sewer Sector 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 pipeworks to be protected against construction traffic as part of the Contractor's temporary works requirements.
 - Exact location road and level of existing sumps to existing manholes in the road to be confirmed on site prior to construction.
 - All connections to local gullies and channels shall be 150mm nominal bore pipework. No pipe work to be downsized in the direction of flow.
 - Connections to foul terminals in excess of 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 HAPAS Certified Plastic.
 - All pipes connecting to adopted manholes greater than 300mm dia. to be Concrete or Polypropylene Rigidsewer.
 - 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 fit branch connections and laid in accordance with the specification.
 - Precast 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 used.
 - Pipe bends to be provided to suit direction of flow.
 - All manhole covers to comply with Clause E2.32, 600mm x 600mm clear opening in accordance with the New Design and Construction Guidance v2. Class D400 kite mark covers and frames to be cast in ductile iron heavy duty double triangular type, embossed 'FW' or 'SW' as appropriate, where applicable.
 - All new drainage to be constructed adjacent new and proposed tree planting to be protected against root activity. Sewers To be protected against root intrusion in accordance with Sewer Sector Guidance, section 87.6
 - 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 - 1200mm the rocker pipe length shall be 750mm - 1000mm.
 - Manholes with outgoing pipes greater than 600mm dia. shall be fitted with guard bars, safety chains and other approved safety devices.
 - Sewer easements at any change in width, these should be 1.2m each side from the pipe OD.
 - Protective concrete cover slabs to be used on pipes in non-traffic area which doesn't achieve 0.9m/9000mm cover level and 1.2/12000mm 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, 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.
 - Writes the format and the level of the 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 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 fibreglass 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 Adopting Water Authority.
 - The Contractor is responsible for and must take all necessary precautions to ensure the stability of the works at all times during construction.
 - All locations to be protected as necessary by the Contractor prior to the commencement of the works.
 - No backdrops to be used, steper gradients are preferred to the use of backdrops.
 - In situation where traffic loading is anticipated to be heavier than would occur on a normal residential street, the Contractor shall be required to install a heavy specification cover (E600) should be used.

This drawing is to be read in conjunction with:
FW2127-P2-C-061 S104 AG2 Long sections and Manhole Schedules
FW2127-P2-C-062 S104 AG2 Adoptable Drainage Construction
Details

A1	S104 separated into agreement package.	EC	JD	DM	27.02.23
Rev	Description of updates	Drawn	Check'd	App'd	Date

Revision Schedule


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FOR APPROVAL

Client: **Jelson Ltd**

Project: Lower Grange Farm,
Markfield

Title:
Section 104 Agreement 2
Overview

Drawn: EC	Checked: JD	Approved: DM	Date: February 2023	Scale: 1:500 @ A1
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Drawing No. FW2127-P2-C-060-3	Revision: A1
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