

- # NOTES
- This drawing to be read in conjunction with all other relevant Engineers and Architects' details.
 - All work is to be carried out in accordance with the current British Standards, codes of practice, building regulations and the relevant Sector Guidance.
 - All drainage offered for adoption has been designed to not attenuate flows in excess of the 1:3 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 surface 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.
 - Where a 150mm nominal bore pipe is to be downsized to a 100mm nominal bore pipework subject to confirmation of above ground profile 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 on all 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 be made of concrete.
 - 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 marked and covered with a 1000mm x 1000mm heavy duty embossed 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 tree root intrusion in accordance with the Sewerage Sector Guidance, section B7.6
 - 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 and above the rocker pipe length shall be 600mm.
 - 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 depth, these should be 1.2m each side from the pipe OD.
 - Protective concrete cover slabs to be used on pipes in non-traffic areas 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 slabs to be used.
 - Where pipe crossing, membrane to be used for protection to eliminate any chances of cross contamination.
 - The outside of the sewer should be in vehicle carriageway (not footpath) and be at least 0.9m 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 forward face of the trench is above ground level, levels are to be made up with compacted DTP Type 2 material or better.
 - All buried concrete master gull for Class 2 sulphates conditions in accordance with Table 1 of BRE Digest 363.
 - Concrete protection to 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 not used, the flexing of joints is to be maintained by using compressible bituminous impregnated fibreglass at each point.
 - 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 safety of the public and the environment.
 - 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, stepper gradients are preferred to the use of backdrops. In relation with the loading is anticipated to be heavier than would occur on a typical road estate distributor road (i.e. braking or turning near a junction) a higher specification cover (E600) should be used.

A1	S104 separated into agreement package.	EC	JD	DM	27.02.2
Rev	Description of updates	Drawn	Check'd	App'd	Date
Revision Schedule					

FOR APPROVAL

Project:
Lower Grange Farm,
Markfield

Drawn: EC	Checked: JD	Approved: DM	Date: February 2023	Scale: 1:250 @ A1
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Drawing No.	Revision:
FW2127-P2-C-070-3	A1