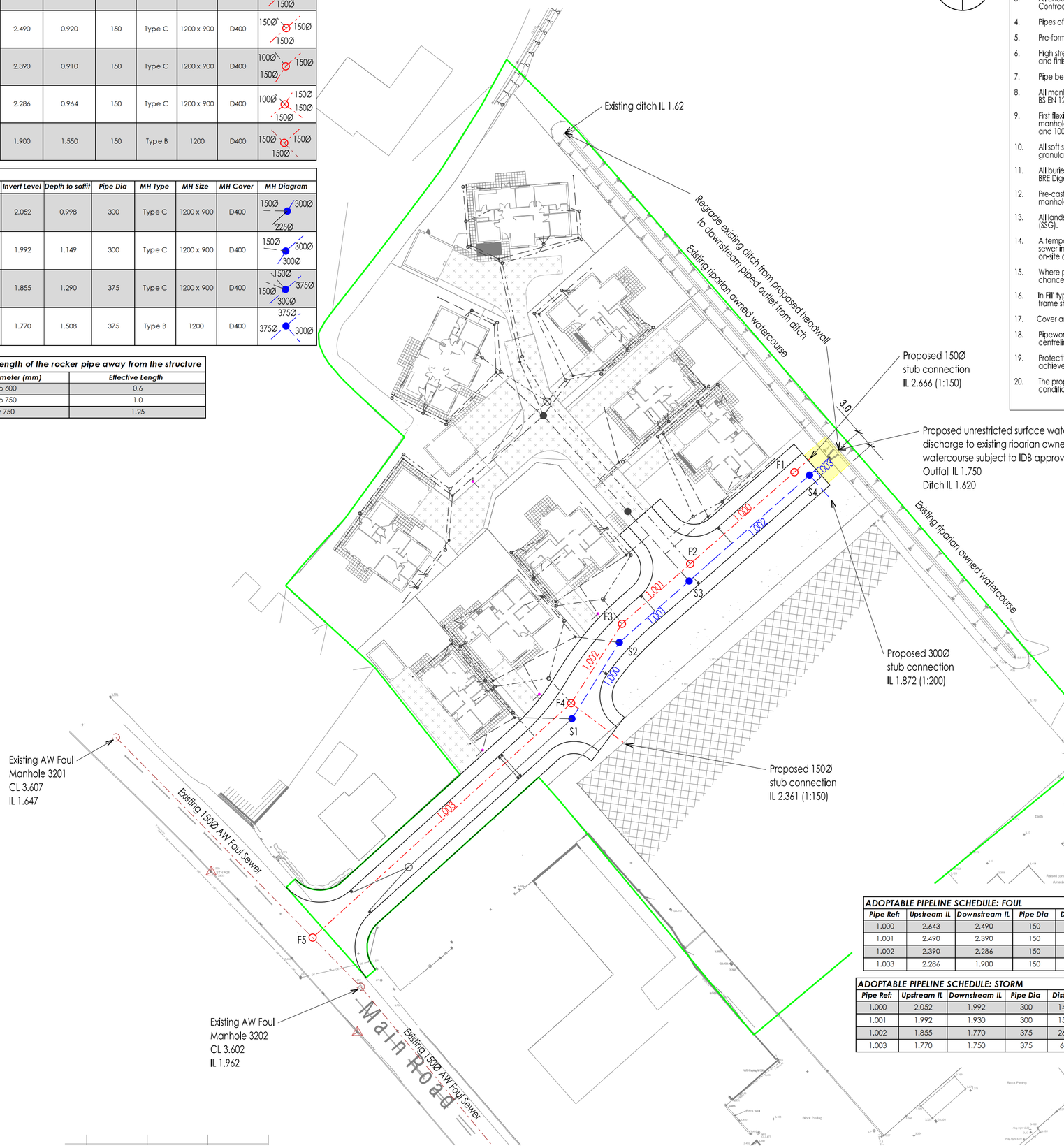
Foul: S104								
MH Ref:	Cover Level	Invert Level	Depth to Soffit	Pipe Dia	MH Type	MH Size	MH Cover	MH Diagram
F1	3.640	2.643	0.847	150	Type C	1200 x 900	D400	150Ø 150Ø
F2	3.560	2.490	0.920	150	Type C	1200 x 900	D400	150Ø 150Ø 150Ø
F3	3.450	2.390	0.910	150	Type C	1200 x 900	D400	100Ø 150Ø 150Ø
F4	3.400	2.286	0.964	150	Type C	1200 x 900	D400	100Ø 150Ø 150Ø
F5	3.600	1.900	1.550	150	Type B	1200	D400	150Ø 150Ø 150Ø

Storm: S104								
MH Ref:	Cover Level	Invert Level	Depth to soffit	Pipe Dia	MH Type	MH Size	MH Cover	MH Diagram
S1	3.350	2.052	0.998	300	Type C	1200 x 900	D400	150Ø 300Ø 225Ø
S2	3.441	1.992	1.149	300	Type C	1200 x 900	D400	150Ø 300Ø 300Ø
S3	3.520	1.855	1.290	375	Type C	1200 x 900	D400	150Ø 150Ø 375Ø 300Ø
S4	3.653	1.770	1.508	375	Type B	1200	D400	375Ø 375Ø 300Ø

Recommended length of the rocker pipe away from the structure	
Nominal Diameter (mm)	Effective Length
150 to 600	0.6
601 to 750	1.0
over 750	1.25



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 at the same level.
5. Pre-formed channels to be used at all manholes.
6. 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.
7. Pipe bends to be provided in direction of flow.
8. All manhole covers and 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 connecting to a rocker pipe. Rocker pipe length to be 600mm (150 - 300mm dia.) and 1000mm (600mm 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/grill is 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 chances of cross contamination.
16. 'In Fill' 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 kite 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 0.9/900m cover and 1.2m/1200mm cover in trafficked area.
20. The proposed materials for the pipework and manholes are suitable for the existing ground conditions on site.

Key

- Site Boundary
- S38 Highway Gully and Connection
- Proposed S38 Highway Drain
- Proposed S104 Surface Water Sewer
- Proposed S104 Foul Water Sewer
- Proposed Sewer Easement
- Proposed Private Foul Drain
- Proposed Private Storm Water Drain
- Permeable Paving

ADOPTABLE PIPELINE SCHEDULE: FOUL						
Pipe Ref:	Upstream IL	Downstream IL	Pipe Dia	Distance	Pipe Gradient 1:X	Pipe Gradient %	Pipe Material
1.000	2.643	2.490	150	22.920	149.8	0.67%	Clayware
1.001	2.490	2.390	150	14.983	149.8	0.67%	Clayware
1.002	2.390	2.286	150	15.533	149.4	0.67%	Clayware
1.003	2.286	1.900	150	57.611	149.3	0.67%	Clayware

ADOPTABLE PIPELINE SCHEDULE: STORM							
Pipe Ref:	Upstream IL	Downstream IL	Pipe Dia	Distance	Pipe Gradient 1:X	Pipe Gradient %	Pipe Material
1.000	2.052	1.992	300	14.825	247.1	0.40%	Polypipe Polysewer
1.001	1.992	1.930	300	15.333	247.3	0.40%	Polypipe Polysewer
1.002	1.855	1.770	375	26.485	311.6	0.32%	Polypipe Ridgisewer
1.003	1.770	1.750	375	6.303	315.2	0.32%	Polypipe Ridgisewer

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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.

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

Rev	Description	Drn	Vf'd	Date
P3	Spur removed from S1 added to S4	JW	PAE	07/07/21
P2	Rocker pipe table added. Storm pipe materials updated	JW	PAE	15/06/21
P1	Initial issue	JW	PAE	08/04/21

As outlined in section 2.3 of the CITB 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 PAE Date 04/21

Drawing Status: REGULATORY APPROVAL

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Project
PHASE 1 RESIDENTIAL DEVELOPMENT
CROSSROADS NURSERIES
QUADRING
LINCOLNSHIRE

Client
HENRY BINGHAM

Title
S104 LAYOUT

WmS Project Ref.	Drawn	Date	Scale	
11849	JW	Apr 2021	1:500	@ A2

Drawing/Document Reference

Project	Originator	Zone	Level	Type	Role	Number	Status	Rev.
11849	WMS	ZZ	XX	DR	C	39211	S8	P3