

S104 Surface Water Manhole Schedule

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
Coordinates	Depth To Soffit		Code	Inverts	Dimensions (mm)		Manhole	Cover
S1	4.600		1 2	Lateral Lateral	3.335 3.335	150 150	1350	Type C
E. 524553.640	1.115							
N. 326628.948			0	1.000	3.110	375		
S2	4.450		1 2	1.000 Lateral Lateral Lateral Lateral	3.010 3.085 3.235 3.235 3.160	375 300 150 150 225	1800	Type C
E. 524541.856	1.065							
N. 326598.385			0	1.001	3.010	375		
S3	4.185		1 2	1.001 Lateral	2.808 3.033	375 150	1350	Type C
E. 524510.103	1.002							
N. 326540.472			0	1.002	2.808	375		
S4	4.205		1 2	Lateral Lateral Lateral	2.990 2.990 2.915	150 150 225	1500	Type C
E. 524521.743	1.065							
N. 326528.604			0	3.000	2.915	225		
S5	4.050		1 2	3.000	2.827 2.902	225 150	1350	Type C
E. 524507.621	0.998							
N. 326524.551			0	3.001	2.827	225		
S6 (FC)	4.205		1	1.004	2.615	450	1800	Flow Control Chamber
E. 524491.742	1.440							
N. 326518.809			0	1.005	2.615	150		

S104 Headwall Schedule

Manhole Number	Cover Level	Connections	Pipe			Headwall Details
Coordinates	Depth To Soffit		Code	Inverts	Dimensions (mm)	
HW1	3.725		1	1.002	2.775	375
E. 524501.150	0.575					Precast Reinforced Concrete Headwall. Athlon AWSFA10X or similar approved. Suitable Codes For Adoption and Anglian Water compliant screen grill to be supplied and fitted to the headwall. To be fitted with guard railing along back and sides of headwall Contractor to ensure headwall type has been agreed with Anglian Water prior to ordering.
N. 326534.916						
HW2	3.300		1		3.050	150
E. 524485.192	0.100					Precast Concrete Inlet. Athlon 150mm Swale Inlet or similar approved. Suitable Codes For Adoption and Anglian Water compliant screen grill to be supplied and fitted to the inlet. Contractor to ensure swale inlet type has been agreed with Anglian Water prior to ordering.
N. 326605.849						
HW3	3.725					
E. 524462.686	0.604					Precast Reinforced Concrete Headwall. Athlon AWSFA11X or similar approved. Suitable Codes For Adoption and Anglian Water compliant screen grill to be supplied and fitted to the headwall. To be fitted with guard railing along back and sides of headwall Contractor to ensure headwall type has been agreed with Anglian Water prior to ordering.
N. 326571.424			0	2.001	2.821	375
HW4	3.725		1	2.001	2.775	375
E. 524462.149	0.575					Precast Reinforced Concrete Headwall. Athlon AWSFA6Y or similar approved. Suitable Codes For Adoption and Anglian Water compliant screen grill to be supplied and fitted to the headwall. To be fitted with guard railing along back and sides of headwall Contractor to ensure headwall type has been agreed with Anglian Water prior to ordering.
N. 326556.809						
HW5	3.625		1	3.001	2.775	225
E. 524500.149	0.625					Precast Reinforced Concrete Headwall. Athlon AWSFA10X or similar approved. Suitable Codes For Adoption and Anglian Water compliant screen grill to be supplied and fitted to the headwall. To be fitted with guard railing along back and sides of headwall Contractor to ensure headwall type has been agreed with Anglian Water prior to ordering.
N. 326528.188						
HW6	3.625					
E. 524491.257	0.775					Precast Reinforced Concrete Headwall. Athlon AWSFA11X or similar approved. Suitable Codes For Adoption and Anglian Water compliant screen grill to be supplied and fitted to the headwall. To be fitted with guard railing along back and sides of headwall Contractor to ensure headwall type has been agreed with Anglian Water prior to ordering.
N. 326521.972			0	1.004	2.625	450
HW7	2.975		1	1.005	2.530	150
E. 524498.142	0.445					Precast Concrete Inlet. Athlon 150mm Swale Inlet or similar approved. Suitable Codes For Adoption and Anglian Water compliant screen grill to be supplied and fitted to the headwall. Contractor to ensure swale inlet type has been agreed with Anglian Water prior to ordering.
N. 326507.783						
HW8	3.285		1		2.985	150
E. 524468.095	0.100					Precast Concrete Inlet. Athlon 150mm Swale Inlet or similar approved. Suitable Codes For Adoption and Anglian Water compliant screen grill to be supplied and fitted to the inlet. Contractor to ensure swale inlet type has been agreed with Anglian Water prior to ordering.
N. 326579.950						

S38 Headwall Schedule

Manhole Number	Cover Level	Connections	Pipe			Headwall Details
Coordinates	Depth To Soffit		Code	Inverts	Dimensions (mm)	
HW9	3.300		1		3.050	150
E. 524482.773	0.100					Precast Concrete Inlet. Athlon 150mm Swale Inlet or similar approved. Suitable Codes For Adoption and screen grill to be supplied and fitted to the inlet. Contractor to ensure swale inlet type has been agreed with Lincolnshire County Council prior to ordering.
N. 326607.989						
HW10	3.300		1		3.050	150
E. 524484.270	0.100					Precast Concrete Inlet. Athlon 150mm Swale Inlet or similar approved. Suitable Codes For Adoption and screen grill to be supplied and fitted to the inlet. Contractor to ensure swale inlet type has been agreed with Lincolnshire County Council prior to ordering.
N. 326607.659						

S104 Foul Water Manhole Schedule

Manhole Number	Cover Level	Connections	Pipe			Manhole Size	Types	
Coordinates	Depth To Soffit		Code	Inverts	Diams		Manhole	Cover
F1	4.311		1	Lateral	2.650	150	1200	Type B
E. 524546.717	1.511							
N. 326591.290			0	1.000	2.650	150		
F2	4.071		1 2	1.000 Lateral	2.257 2.257	150 150	1200	Type B
E. 524518.275	1.664							
N. 326539.586			0	1.001	2.257	150		
F3	3.850		1 2	1.001 Lateral	1.919 1.919	150 150	1200	Type B
E. 524471.276	1.781							
N. 326558.616			0	1.002	1.919	150		
F4	3.940		1	1.002	1.775	150	1200	Type B
E. 524451.999	2.015							
N. 326568.278			0	1.003	1.775	150		
F5	3.940		1	1.003	1.206	150	1200	Type B
E. 524410.783	2.584							
N. 326493.609			0	1.004	1.206	150		
F6	3.830		1	1.004	0.701	150	1200	Type B
E. 524369.895	2.979							
N. 326429.901			0	1.005	0.701	150		
F7	3.760		1	1.005	-0.285 (Backdrop)	150	1200	Type A
E. 524363.418	3.895		Ex	Existing sewer	-1.285 TBC	225		
N. 326418.183			Ex	Existing sewer	-1.285 TBC	225		

Section 106
Foul water (domestic effluent only) to outfall into new manhole on line of existing 225Ø Anglian Water sewer subject to S106 Application and approval.

Number of dwellings served: 37

The Contractor is to satisfy themselves of the line, level, type, pipe size and condition of the existing sewer prior to starting Section 104 works in accordance with the information provided. Contractor should notify the Engineer of any deviance from the information at least 4 weeks prior to works commencing on site.

General Notes

- All dimensions are in metres unless otherwise stated.
- All levels are in metres.
- This drawing is to be read in conjunction with all relevant Engineers and Architect's drawings, Specifications, Reports and Engineering Details.
- Do not scale from this drawing.
- This drawing shall not be used for any precast manhole base setting out. Incoming and outgoing pipe angles are shown indicatively only

Health, safety & the environment

In accordance with the Construction (Design and Management) Regulations 2015, the designs and details on this drawing have been the subject of a Designers Risk Assessment, to identify risks in the construction, use, or demolition of the scheme.

It is not considered necessary for Designers to highlight obvious and/or common risks (such as deep excavations, manual handling and working around heavy plant) which Contractors should be familiar with, and be able to control by good management and site practice.

So far as is reasonably practicable, the risks inherent in the design have been eliminated. Where it has been considered that elimination of a risk (or part of a risk) is not reasonably practicable, it has been reduced.

This drawing has been based/developed using the following external drawings					
Type	Company	Drawing date	Drawing title	Date received	Rev
Site Layout	JGA Architects	04.05.2022	20050 0102-P06 Proposed Site Layout-Model Space	04.01.2023	P06
Topographical survey	EMP Surveys LTD	July 2022	1021_Pinchbeck Topographical Survey_Final	04.01.2023	P05

Agreement	Approval Granted
S23 (Land drainage consent)	NOT APPROVED
S104 (Adoption of sewers)	NOT APPROVED
S278 (Works in existing highway)	NOT APPROVED
S106 (Foul connection)	NOT APPROVED

ALL WORKS WITHIN THE ADOPTABLE PUBLIC HIGHWAY SHALL CONFORM TO THE CURRENT "LINCOLNSHIRE DEVELOPMENT ROADS & SUSTAINABLE DRAINAGE DESIGN GUIDE" AND "DEVELOPMENT ROAD AND SUSTAINABLE DRAINAGE SPECIFICATION AND CONSTRUCTION" PUBLICATIONS IN FORCE IN THE COUNTY AT THE TIME OF CONSTRUCTION.

ALL ADOPTABLE DRAINAGE WORKS TO BE IN ACCORDANCE WITH CODES FOR ADOPTION DESIGN & CONSTRUCTION GUIDANCE

DRAWINGS HAVE NOT BEEN APPROVED, UNTIL THE DRAWINGS ARE APPROVED THE DESIGNS AND DETAILS SHOWN ON THIS DRAWING ARE SUBJECT TO CHANGE.

ANY WORKS UNDERTAKEN PRIOR TO TECHNICAL APPROVAL IS ENTIRELY AT THE CONTRACTORS' RISK.

Site Wide Build-Up

Levels across the site have been lifted significantly above existing ground levels to allow for the following:

- To allow surface water drainage to drain to the existing ditch at the southern side of the site by gravity.
- To avoid deep foul drainage required to allow the site to drain to the existing AW manhole by gravity (alternative solution is to pump foul fouls via a rising main)
- To limit excavations required for drainage and services in the unstable ground and Made Ground, where high groundwater is present.

A geogrid will be required under all road, footway, parking areas and patios due to low strength soils (CBR values shave been shown to range from 5.2% to 0.3%) and deep Made Ground. Geogrid to be designed by a specialist.

Allowance to be made for Geogrid to extend below all manholes and inspection chambers, and also to cover POS and garden areas where there is a risk of future settlement. Fill material specification also to be advised by Geotechnical Engineer to reduce risk of settlement - allowance to be made for removal of Made Ground material.



Deep Made Ground present within area of proposed detention basin and plots 13-22 (exact extents of Made Ground unknown). Constant inflow of groundwater and excavation collapse encountered in this area during ground investigations. There is also the risk of trench instability and high groundwater across the site. Excavations have been limited where possible by raising site levels.

Geogrid required - design to be undertaken by a specialist. Allowance to also be made for removal of Made Ground.

Prior to commencing works the Contractor is to familiarise themselves with the ground conditions detailed within the Elemental GI Ltd Phase II Geo-Environmental Investigation Report (Jan 2022, Ref: E21142/2/1) and the findings of JPP Geotechnical additional ground investigations undertaken in February 2023. The Contractor is to ensure suitable safe working practices are followed in accordance with current best practice. The Contractor is to ensure the excavations are suitably managed with supports or benched to prevent collapse, and de-watering / pump equipment in place where required. Excavations are not to be left open for long periods

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- Infrastructure Design
- Structural Engineering
- Planning Services
- Geotechnical & Environmental
- Surveying
- Professional Advice

Rev A Flow control manhole S6 cover level amended.

By SH Checked LC 17.03.2023

Drawn By:	SH	Client	Burmor Construction
Chkd By:	LC	Project	Land East of Surfleet Road Pinchbeck
Scale @ A1:	NTS	Title	Manhole Schedules
Date:	February 2023		
Status:	FOR TECHNICAL APPROVAL		
Project No.:	26043	Drawing No:	102
Rev:	A		