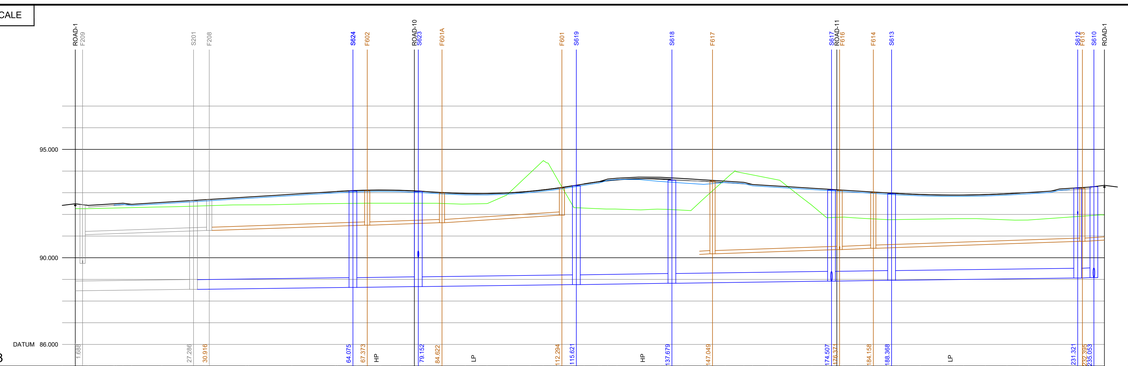
DO NOT SCALE



ROAD-3

CHAINAGE	EXISTING GROUND LEVEL	ALIGNMENT LEVEL
0.000	92.296	92.341
3.000		
8.001	92.298	92.429
8.315		
11.018		
13.033		
20.000	92.345	92.553
30.000	92.397	92.678
30.916		
38.985	92.440	92.803
40.000		
50.000	92.468	92.928
60.000	92.499	93.053
60.497		93.069
65.000		93.103
70.000	92.516	93.122
70.497		93.122
75.000		93.109
76.342	92.514	93.055
79.152		93.059
80.497		93.056
84.723	92.478	93.043
84.822		93.040
85.000		92.985
90.000	92.276	92.958
95.000		92.958
100.000	92.276	92.993
105.000		93.066
107.971	94.099	93.177
110.000		93.319
112.294		93.407
114.733	92.270	93.486
115.627		
117.413		93.584
120.000		
122.832		
125.000		
130.498	92.211	93.649
131.588		93.659
135.000		93.659
137.413	92.198	93.616
137.679		93.583
140.000		
144.636		93.458
150.000	93.022	93.333
154.296		
156.296		
160.000	93.076	93.268
170.000	92.414	
173.737		
174.007		
175.737		
176.007		
180.000	91.939	92.983
183.037		
184.138		
185.308		
187.925		
190.000		
195.000	91.764	92.864
200.000	91.793	92.817
205.000		92.864
210.000	91.789	92.891
215.000		92.951
217.925		92.984
220.000	91.742	93.010
225.139		
227.139		
229.432	91.884	93.135
231.321		
232.432		
235.000		
237.482	91.974	93.191

VERTICAL ALIGNMENT: G= 1.250% 1: 80.0 | L= 20.000 KF= -8.0 | G= -2.250% 1: -80.0 | KF= 6.54545 L= 30.000 | G= 3.333% 1: 30.0 | L= 20.000 KF= -4.36364 | G= -1.250% 1: -80.0 | KF= 12.0 L= 30.000 | G= 1.250% 1: 80.0

HORIZONTAL ALIGNMENT: R= 195.600 | R= 93.000 | R= 9.000 | R= 37.000

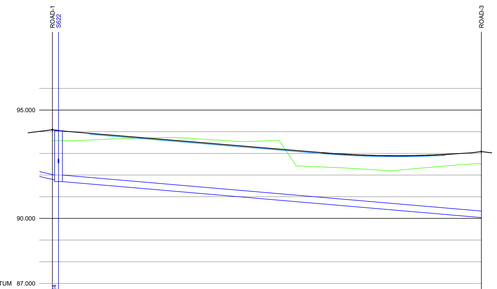
LEFT HAND CHANNEL	CENTRE LINE	RIGHT HAND CHANNEL
92.420	92.441	92.431
92.428	92.449	92.429
92.429	92.455	92.428
92.426	92.516	92.426
92.428	92.498	92.428
92.453	92.543	92.453
92.493	92.553	92.493
92.556	92.616	92.556
92.618	92.678	92.618
92.681	92.741	92.681
92.743	92.803	92.743
92.806	92.866	92.806
92.868	92.928	92.868
92.931	92.991	92.931
92.993	93.053	92.993
93.043	93.103	93.043
93.062	93.122	93.062
93.049	93.109	93.049
93.095	93.055	93.095
92.943	93.003	92.943
92.902	92.962	92.902
92.858	92.958	92.858
92.933	92.993	92.933
93.096	93.066	93.096
93.117	93.177	93.117
93.267	93.327	93.267
93.448	93.508	93.448
93.569	93.629	93.569
93.650	93.720	93.650
93.614	93.714	93.614
93.556	93.658	93.556
93.536	93.596	93.536
93.473	93.533	93.473
93.420	93.480	93.420
93.320	93.380	93.320
93.273	93.333	93.273
93.211	93.271	93.211
93.148	93.208	93.148
93.086	93.146	93.086
93.022	93.053	93.023
92.961	93.021	92.961
92.900	92.960	92.900
92.837	92.917	92.837
92.834	92.894	92.834
92.832	92.892	92.832
92.851	92.911	92.851
92.891	92.951	92.891
92.950	93.010	92.950
93.014	93.074	93.014
93.114	93.178	93.114
93.115	93.203	93.143
	93.229	
	93.279	
	93.290	

STORMWATER COVER LEVEL
92.627
93.079
93.055
93.327
93.571
93.128
92.955
93.229
93.279

STORMWATER INVERT
Pipe 3.004 Dia 450 CONC 1 in 398 28.230
88.542
88.538
Pipe 3.003 Dia 450 CONC 1 in 400 36.826
88.630
88.630
Pipe 3.002 Dia 450 CONC 1 in 397 15.078
88.668
88.668
Pipe 5.013 Dia 450 CONC 1 in 400 36.394
88.759
88.759
Pipe 5.012 Dia 450 CONC 1 in 397 24.615
88.821
88.821
Pipe 5.011 Dia 450 CONC 1 in 398 39.417
88.920
88.921
Pipe 5.010 Dia 450 CONC 1 in 400 13.983
88.956
88.956
Pipe 5.009 Dia 450 CONC 1 in 421 42.954
89.563
89.563
Pipe 5.008 Dia 450 CONC 1 in 391 7.432
89.595

FOULWATER COVER LEVEL
92.450
92.674
92.084
92.086
93.219
93.542
93.105
93.059
93.209

FOULWATER INVERT
91.965
Pipe 3.002 Dia 150 PVC-U 1 in 150 29.169
91.259
91.259
Pipe 3.001 Dia 150 PVC-U 1 in 150 36.427
91.502
91.502
Pipe 3.000A Dia 150 PVC-U 1 in 150 17.293
91.617
91.617
Pipe 3.000 Dia 150 PVC-U 1 in 80 27.672
91.963
90.182
Pipe 4.012 Dia 150 PVC-U 1 in 150 29.322
90.377
90.377
Pipe 4.011 Dia 150 PVC-U 1 in 129 7.629
90.506
90.506
Pipe 4.010 Dia 150 PVC-U 1 in 150 48.241
90.756
90.756
Pipe 4.009 Dia 150 PVC-U 1 in 148 9.407
90.806



ROAD-10

CHAINAGE	EXISTING GROUND LEVEL	ALIGNMENT LEVEL
0.000	93.592	94.021
3.007		
8.871	93.632	93.904
9.664		
10.000		
20.000	93.706	93.738
29.339	93.716	93.671
30.000		
32.390	93.589	93.404
36.282		
40.000	93.579	93.258
50.000		
60.000	92.394	93.071
62.266		93.033
65.000	92.296	92.991
70.000	92.253	92.900
75.000		
79.449	92.231	92.890
80.000		92.891
85.000		92.906
90.148		92.944
92.148		92.871
95.000	92.009	93.025
98.989	92.015	

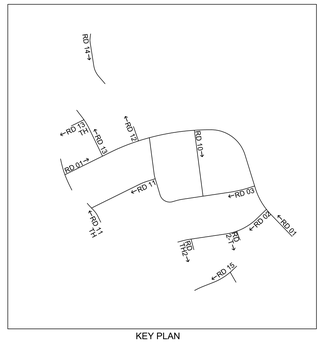
VERTICAL ALIGNMENT: G= -1.667% 1: -60.0 | KF= 10.28571 L= 30.000 | G= 1.250% 1: 80.0

HORIZONTAL ALIGNMENT: R= 17.800 | R= 17.100

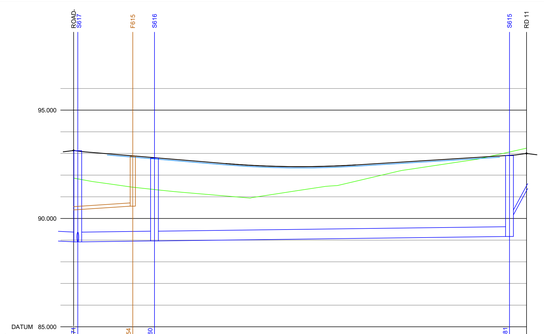
LEFT HAND CHANNEL	CENTRE LINE	RIGHT HAND CHANNEL
93.984	93.989	93.882
93.956	93.928	93.864
93.775	93.821	93.775
93.691	93.738	93.691
93.658	93.654	93.608
93.529	93.571	93.525
93.441	93.488	93.441
93.358	93.404	93.358
93.275	93.321	93.275
93.191	93.238	93.191
93.108	93.154	93.108
93.025	93.071	93.025
92.945	92.991	92.945
92.887	92.933	92.887
92.854	92.900	92.854
92.844	92.891	92.844
92.859	92.906	92.859
92.880	92.925	92.903
92.902	92.948	92.906
	92.970	
	92.992	

STORMWATER COVER LEVEL
94.044

STORMWATER INVERT
91.698
Pipe 3.001 Dia 300 PVC-U 1 in 59 98.299



KEY PLAN



ROAD-11

CHAINAGE	EXISTING GROUND LEVEL	ALIGNMENT LEVEL
0.000	91.883	93.077
2.600		
7.759	91.845	92.950
8.515		
13.033		
20.000	91.907	92.784
24.966	91.924	92.617
30.000		92.532
35.107	90.954	92.462
40.000		
45.000	91.234	92.415
50.000		92.391
52.250		92.389
55.000	91.508	92.418
60.000		92.468
65.000	91.948	92.499
65.107		
70.000	92.342	92.531
80.000		92.596
90.000	92.641	92.781
93.611	93.042	92.906
98.315		
100.000		
100.000	93.343	92.931
104.516		

VERTICAL ALIGNMENT: G= -1.667% 1: -60.0 | KF= 10.28571 L= 30.000 | G= 1.250% 1: 80.0

HORIZONTAL ALIGNMENT: R= 77.000

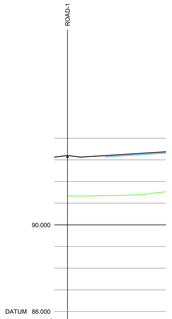
LEFT HAND CHANNEL	CENTRE LINE	RIGHT HAND CHANNEL
92.915	93.034	92.928
92.890	92.988	92.915
92.807	92.915	92.807
92.724	92.784	92.724
92.640	92.750	92.640
92.557	92.617	92.557
92.474	92.534	92.474
92.402	92.462	92.402
92.355	92.415	92.355
92.331	92.391	92.331
92.333	92.393	92.333
92.358	92.418	92.358
92.408	92.468	92.408
92.471	92.531	92.471
92.533	92.593	92.533
92.596	92.656	92.596
92.658	92.718	92.658
92.721	92.781	92.721
92.786	92.856	92.786
	92.843	
	92.906	
	92.931	

STORMWATER COVER LEVEL
93.128
92.785
92.900

STORMWATER INVERT
88.919
Pipe 8.002 Dia 450 CONC 1 in 400 17.625
88.993
88.993
Pipe 8.001 Dia 450 CONC 1 in 399 81.849
89.168

FOULWATER COVER LEVEL
92.868

FOULWATER INVERT
Pipe 5.006 Dia 150 PVC-U 1 in 407
90.547



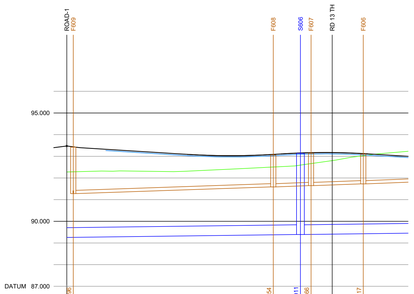
ROAD-12

CHAINAGE	EXISTING GROUND LEVEL	ALIGNMENT LEVEL
0.000	91.350	93.127
3.001		
8.699	91.353	93.215
8.815		
10.000		
20.000	91.468	93.340
22.660	91.527	93.374

VERTICAL ALIGNMENT: G= 1.250% 1: 80.0

HORIZONTAL ALIGNMENT

LEFT HAND CHANNEL	CENTRE LINE	RIGHT HAND CHANNEL
93.144	93.152	93.139
93.176	93.199	93.144
93.217	93.204	93.217
93.280	93.277	93.280
93.314	93.340	93.314
	93.374	93.374



ROAD-13

CHAINAGE	EXISTING GROUND LEVEL	ALIGNMENT LEVEL
0.000	92.278	93.400
3.000		
8.699		
8.815		
10.000	92.314	93.312
20.000	92.306	93.187
27.856		93.089
30.000	92.295	93.065
35.000	92.429	93.032
37.858		93.027
40.000		93.029
45.187		93.059
47.858		93.088
47.954		93.089
50.000	92.626	93.116
52.272		93.141
53.811		93.160
55.000	92.766	93.173
56.306		93.173
59.817		93.170
61.252		93.155
65.000		
66.526		93.113
69.472		93.106
70.000	93.070	93.100
76.770	93.251	93.050

VERTICAL ALIGNMENT: G= -1.250% 1: -80.0 | KF= 8.0 L= 20.000 | G= 1.250% 1: 80.0 | L= 20.000 KF= -8.11640 | G= -1.214% 1: -82.4

HORIZONTAL ALIGNMENT: R= 102.000

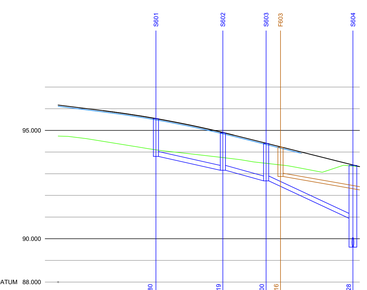
LEFT HAND CHANNEL	CENTRE LINE	RIGHT HAND CHANNEL
93.266	93.375	93.364
93.204	93.326	93.252
93.190	93.350	93.150
93.127	93.187	93.127
93.065	93.125	93.065
93.035	93.065	93.035
92.972	93.032	92.972
92.969	93.029	92.969
92.999	93.059	92.999
93.056	93.116	93.056
93.100	93.160	93.100
93.113	93.173	93.113
93.095	93.155	93.095
93.046	93.106	93.046
92.986	93.046	92.986
92.940	93.050	92.940

STORMWATER COVER LEVEL
93.134

STORMWATER INVERT
Pipe 5.005 Dia 450 CONC 1 in 421 55.301
89.390
89.390
Pipe 5.004 Dia 450 CONC 1 in 422 30.153

FOULWATER COVER LEVEL
93.423
93.055
93.144
93.104

FOULWATER INVERT
91.279
Pipe 4.005 Dia 150 PVC-U 1 in 150 46.178
91.587
Pipe 4.004 Dia 150 PVC-U 1 in 149 8.784
91.646
Pipe 4.003 Dia 150 PVC-U 1 in 150 12.130
91.722
Pipe 4.002 Dia 150 PVC-U 1 in 150 12.848



ROAD-14

CHAINAGE	EXISTING GROUND LEVEL	ALIGNMENT LEVEL
0.000	94.737	96.170
0.803		
10.000	94.508	95.920
15.000	94.383	95.609
15.803		95.767
20.000		95.633
22.080		
25.000	93.931	95.456
30.000		95.282
35.000	93.699	95.045
37.947		
38.019		
40.000	93.455	94.607
42.448		94.765
45.000		94.507
50.000	93.104	93.807
55.106		
55.316		
56.316		
60.000	93.329	93.329
65.028	93.271	93.329

VERTICAL ALIGNMENT: G= -2.496% 1: -40.1 | L= 30.000 KF= -11.98078 | G= -5.000% 1: -20.0

HORIZONTAL ALIGNMENT: R= 13.000 | R= 30.000 | R= 32.000

LEFT HAND CHANNEL	CENTRE LINE	RIGHT HAND CHANNEL
96.110	96.170	96.110
95.985	96.045	95.985
95.860	95.920	95.860
95.727	95.787	95.727
95.573	95.633	95.573
95.456	95.456	95.398
95.292	95.292	95.202
94.985	95.045	94.985
94.747	94.607	94.747
94.437	94.557	94.497
94.247	94.307	94.247
93.947	94.007	93.997
93.931	93.991	93.947
	93.807	
	93.557	
	93.329	

STORMWATER COVER LEVEL
95.522
94.853
94.386
93.385

STORMWATER INVERT
93.797
Pipe 5.000 Dia 225 PVC-U 1 in 24 15.440
93.160
93.160
Pipe 5.001 Dia 225 PVC-U 1 in 20 9.749
92.671
92.671
Pipe 5.002 Dia 225 PVC-U 1 in 12 19.875
90.943

FOULWATER COVER LEVEL
94.223

FOULWATER INVERT
92.873
Pipe 4.000 Dia 150 PVC-U 1 in 30 21.751

0 5 10 15 20 25 30 35 40 45 50

SCALE BAR (1:500)

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Notes

1. Setting out shall be undertaken using only the information given. Distances should not be scaled from this drawing.
2. All sewers shall be constructed in accordance with Design and Construction Guidance (DCG) Standards and United Utilities Details & Guidelines.
3. The minimum gravity pipe diameter under adoptable highways shall be 150mm
4. It is the responsibility of the Contractor to verify all information given with regards to existing services and drainage connections etc. prior to commencing the works. The rates shall include for hand dig around services where necessary. The Contractor shall adhere to the CDM Regulations at all times
5. The outsides of all sewers shall be a minimum of 1.0m from kerb lines and the outside of manholes shall be a minimum of 0.5m from kerb lines
6. Existing flows in watercourses, sewers and land drains shall be maintained at all times
7. Only trained personnel shall be permitted to enter confined spaces
8. All materials to bear the relevant B.S. Kitemark and comply fully with the specifications. All concrete & concrete products must use Sulphate resistant cement to withstand Class 3 condition (unless the site investigation report proves that sulphate attack from soils and groundwater will not occur).
9. All opening notices etc. as required under Highways Acts etc. are to be obtained prior to commencement of works. All works are to be inspected by L.A., NHBC or the Network Operator as applicable.
10. Where "Structured Wall" UPVC pipes (or similar approved) are used in adoptable drainage they shall be handled and laid in accordance with the manufacturers instructions and will be subject to post installation deformation testing prior to adoption. A Class S Bed and Surround must be used for "Structured Wall" pipes
11. Trench backfill in highways to within 1m of highway shall, as directed by the Highway Authority be a suitable granular material all in accordance with Design and Construction Guidance (DCG) Standards.
12. Slab levels shall not be varied without reference to the Engineer for guidance.
13. Pipes have not been designed to accommodate construction traffic loading. The contractor is responsible for providing adequate protection to the pipes during construction.
14. All works to be in accordance with Cumbria Council's Specification and Standard Details, and as agreed with Cumbria Council's representative.
15. Manhole pipe connections to be soffit to soffit.

Class 'S' bed and surround to all pipes unless stated otherwise.
Class 'Z' bed and surround to pipes where cover < 1.2m as indicated on longsections.

All connections are soffit to soffit

Pipe Materials Table

Pipe Materials Table	Pipe Materials Table
100	PVC-U
150	PVC-U
225	PVC-U
300	PVC-U
375	CONCRETE
450	CONCRETE
525	CONCRETE

Contractor may elect to use thermoplastics pipes. These shall comply with the relevant provisions of BS EN 1401-1, BS EN 1852 and BS EN 12666-1 and should be United Utilities approved products

Bedding and Surround Table

Depth to Soffit	Bedding and Surround Type
>1.2m	Class S
<1.2m	Class Z

Note:
Adoptable materials / workmanship to conform to Part E of "Sewers for Adoption" 7th Edition.

PLANNING

Rev.	Date	Revision	By	Appd
B	23.01.26	Drawing number revised	JAR	JAR
A	15.10.25	Phase 6 levels reduced	OB	JAR

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chartered consulting engineers
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Park House
Sandpiper Court
Chester Business Park
Chester
CH4 9QU

Client: Story HOMES

Project: EDGEHILL PARK, CUMBRIA PHASE 6

Title: HIGHWAY LONGSECTIONS SHEET 2 OF 3

DRAWING NUMBER	SCALE at A0	1:500	
7503-P3 / PL02-2	DATE	26.03.25	REVISION
	DRAWN	JAR	B
	CHECKED	AJ	