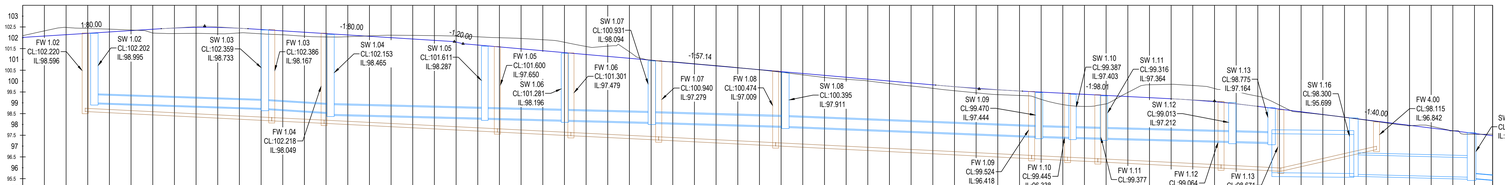
YW REF: H-3-264-041

Road 1 PROFILE
SCALE: 1:200 HORZ., 1:40 VERT.
5 x VERT SCALE



CHAINAGE	0+000	0+005	0+010	0+015	0+020	0+025	0+030	0+035	0+040	0+045	0+050	0+055	0+060	0+065	0+070	0+075	0+080	0+085	0+090	0+095	0+100	0+105	0+110	0+115	0+120	0+125	0+130	0+135	0+140	0+145	0+150	0+155	0+160	0+165	0+170	0+175	0+180	0+185	0+190	0+195	0+200	0+205	0+210	0+215	0+220	0+225	0+230	0+235	0+240	0+245	0+250	0+255	0+260	0+265	0+270	0+275	0+280	0+285	0+290	0+295	0+300	0+305	0+310	0+315	0+320	0+325	0+330	0+335	0+339.19
EXISTING GROUND LEVEL	102.317	102.478	102.420	102.398	102.358	102.218	102.198	102.202	102.189	102.224	102.163	102.138	102.072	102.037	102.049	102.085	102.119	102.110	102.100	102.078	102.046	102.004	101.967	101.913	101.793	101.599	101.615	101.554	100.964	100.892	100.802	100.715	100.621	100.522	100.410	100.395	99.958	99.917	99.831	99.800	99.475	99.832	99.850	99.798	99.657	99.511	99.301	99.893	98.955	98.461	98.328	98.198	98.059	97.980	97.835	97.710	97.585	97.544
ROAD 1 LEVEL	102.081	102.144	102.206	102.269	102.331	102.394	102.460	102.478	102.475	102.441	102.361	102.318	102.256	102.193	102.131	102.068	102.006	101.943	101.881	101.803	101.664	101.576	101.489	101.401	101.314	101.226	101.139	101.051	100.964	100.876	100.789	100.701	100.614	100.526	100.439	100.351	100.264	100.176	100.089	100.001	99.914	99.826	99.742	99.657	99.601	99.544	99.493	99.442	99.391	99.340	99.289	99.238	99.187	99.127	99.048	98.951	98.835	98.710	98.585	98.460	98.335	98.210	98.085	97.960	97.835	97.710	97.585	97.544

HORIZONTAL GEOMETRY: L=54.758; L=(18.937 R=189.999); L=30.055; L=(20.447 R=60.000); L=(20.447 R=60.000); L=18.864; L=(12.333 R=100.000); L=57.822; L=(18.164 R=16.000); L=21.223; L=(5.838 R=48.279); L=56.305

VERTICAL GEOMETRY:
- Length: 31.983; Grad: 1.25%; Start: 0+000.000, Level: 102.019; End: 0+031.983, Level: 102.418
- Length: 20.000; K Value: 8.000; PVI Station: 0+041.983, PVI El: 102.543
- Length: 47.617; Grad: -1.25%; Start: 0+051.983, Level: 102.418; End: 0+099.600, Level: 101.823
- Length: 2.000; Grad: -5.00%; Start: 0+099.600, Level: 101.823; End: 0+101.600, Level: 101.723
- Length: 109.094; Grad: -1.75%; Start: 0+101.600, Level: 101.723; End: 0+210.694, Level: 99.814
- Length: 20.00; K Value: 27.408; PVI Station: 0+220.694
- Length: 34.306; Grad: -1.02%; Start: 0+230.694, Level: 99.537; End: 0+265.000, Level: 99.187
- Length: 20.000; K Value: 13.516; PVI Station: 0+275.000, PVI El: 99.085
- Length: 54.191; Grad: -2.50%; Start: 0+285.000, Level: 98.835; End: 0+339.191, Level: 97.480

SW INVERT LEVELS	98.995	98.733	98.540	98.465	98.287	98.287	98.196	98.196	98.094	98.094	97.911	97.911	97.444	97.444	97.403	97.364	97.364	97.212	97.212	97.164	95.774	95.736	95.699	95.563	95.513	95.382

SW PIPE DATA:
- SW 1.02 – 1.002 / 3750 / @ 1:150 / LENGTH: 39.365
- SW 1.03 – 1.003 / 3750 / @ 1:80 / LENGTH: 15.358
- SW 1.04 – 1.004 / 4500 / @ 1:200 / LENGTH: 35.601
- SW 1.05 – 1.005 / 4500 / @ 1:199 / LENGTH: 18.128
- SW 1.06 – 1.006 / 4500 / @ 1:199 / LENGTH: 20.346
- SW 1.07 – 1.007 / 4500 / @ 1:168 / LENGTH: 30.680
- SW 1.08 – 1.008 / 4500 / @ 1:125 / LENGTH: 58.588
- SW 1.09 – 1.009 / 4500 / @ 1:201 / LENGTH: 8.222
- SW 1.10 – 1.010 / 4500 / @ 1:200 / LENGTH: 7.730
- SW 1.11 – 1.011 / 4500 / @ 1:200 / LENGTH: 30.416
- SW 1.12 – 1.012 / 4500 / @ 1:200 / LENGTH: 9.659
- SW 1.13 – 1.013 / 1800 / @ 1:498 / LENGTH: 18.930
- SW 1.16 – 1.016 / 9000 / @ 1:200 / LENGTH: 27.171
- SW 1.17 – 1.017 / 2250 / @ 1.64 / LENGTH: 8.442

FW INVERT LEVELS	98.596	98.167	98.049	98.049	97.650	97.650	97.479	97.479	97.279	97.279	97.009	97.009	96.418	96.418	96.338	96.271	96.271	95.982	95.982	95.838	95.839	96.842

FW PIPE DATA:
- FW 1.02 – 1.002 / 1500 / @ 1:100 / LENGTH: 42.960
- FW 1.03 – 1.003 / 1500 / @ 1:100 / LENGTH: 11.734
- FW 1.04 – 1.004 / 1500 / @ 1:100 / LENGTH: 39.947
- FW 1.05 – 1.005 / 1500 / @ 1:100 / LENGTH: 17.047
- FW 1.06 – 1.006 / 1500 / @ 1:100 / LENGTH: 20.040
- FW 1.07 – 1.007 / 1500 / @ 1:100 / LENGTH: 27.039
- FW 1.08 – 1.008 / 1500 / @ 1:100 / LENGTH: 59.070
- FW 1.09 – 1.009 / 1500 / @ 1:100 / LENGTH: 7.990
- FW 1.10 – 1.010 / 1500 / @ 1:100 / LENGTH: 6.667
- FW 1.11 – 1.011 / 1500 / @ 1:100 / LENGTH: 28.831
- FW 1.12 – 1.012 / 1500 / @ 1:100 / LENGTH: 14.437
- FW 1.13 – 4.000 / 1500 / @ 1:22 / LENGTH: 22.094
- FW 4.00 – 0.000 / 1500 / @ 1.64 / LENGTH: 8.442

GENERAL NOTES

A. THIS DRAWING IS BASED ON PLANNING LAYOUT DRAWING 17-296-02 AND HAYCOCK AND TODD TOPOGRAPHICAL SURVEY DRAWING 58860-3D.

B. EXISTING LEVELS AND DIMENSIONS SHALL BE VERIFIED ON SITE PRIOR TO COMMENCEMENT OF ANY WORKS.ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.

C. THE CLEARANCE OF THE CROSSOVER POINTS (MIN 300mm) BETWEEN THE SURFACE WATER SEWERS, FOUL SEWERS, RISING MAIN AND OTHER SERVICES SHOULD BE SUFFICIENT CLEARANCE TO PROVIDE 150mm GRANULAR BED AND SURROUND AROUND BOTH PIPES.

YORKSHIRE WATER NOTES:

1. ALL ADOPTABLE SEWER WORKS AND MATERIAL TO BE IN ACCORDANCE WITH "SEWERS FOR ADOPTION" 6TH EDITION, THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/ADDENDUM TO THE MECHANICAL AND ELECTRICAL SPECIFICATION AND KITEMARKED.

2. MANHOLE COVERS SHALL/MUST HAVE A CLEAR OPENING OF 600MM AND SHALL BE CLASS D400 TO BS EN 124 WITH 150MM DEEP FRAMES IN HIGHWAYS.

3. FILLED GROUND MUST BE FILLED AND CONSOLIDATED UNDER THE SUPERVISION AND TO THE SATISFACTION OF YORKSHIRE WATER BEFORE ANY SEWER WORKS ARE CARRIED OUT.

4. YORKSHIRE WATER IS NOT OBLIGED TO ACCEPT FILTER DRAINLAND DRAINAGE RUN-OFF INTO THE PUBLIC SEWER NETWORK OR ADOPTABLE DRAINAGE SYSTEM (DIRECT) * OR IN-DIRECT(*). AN ALTERNATIVE METHOD OF DISPOSAL OF THE LAND DRAINAGE RUN-OFF WILL THEREFORE BE REQUIRED AND YOU WILL HAVE TO LIAISE WITH THE LOCAL AUTHORITY, LAND DRAINAGE SECTION WITH REGARD TO THE DISPOSAL OF THE FILTER DRAINLAND DRAINAGE RUN-OFF.

5. COVER SLABS MUST CARRY THE BSI KITEMARK OR WILL BE REJECTED BY YORKSHIRE WATER INSPECTOR. WHERE THE CLEAR OPENING OF THE KITEMARKED PRODUCT IS DIFFERENT TO THAT OF THE COVER AND FRAME, A LOADING BEARING SLAB SHOULD BE FITTED ABOVE THE COVER SLAB TO BRING THE SIZE DOWN TO 600MM x 600MM FOR THE YORKSHIRE WATER SPECIFIED COVER SIZE. PLEASE REFER TO CONCRETE PIPE SYSTEMS ASSOCIATION (CPSA), "TECHNICAL BULLETIN ISSUED AUTUMN 2004 FOR KITEMARKED COVER SLAB OPENING SIZES.

6. SULPHATE RESISTANT CEMENT (C20-DC2) AND PRECAST CONCRETE PRODUCTS MUST BE USED OR A LABORATORY REPORT PROVIDED PROVING THAT SUCH PRECAUTIONS ARE NOT NECESSARY.

7. THE ADOPTABLE SEWERS SHOULD BE A MINIMUM OF 1M AND MANHOLES 0.5M FROM KERB FACES AND SERVICE MARGINS.

8. "SEWERS MUST HAVE 6 METRES CLEARANCE FROM TREES AND HEDGES (PLEASE ALSO REFER TO FIGURE 2.3 ON PAGE 33 IN "SEWERS FOR ADOPTION" 6TH EDITION FOR RESTRICTIONS ON TREE PLANTING ADJACENT TO SEWERS)".

9. SEWERS TO BE LAID IN CLASS "S" BEDDING (150MM GRANULAR BED AND SURROUND). WHERE DEPTH OF COVER TO TOP OF THE SEWER IS LESS THAN 1.2M IN HIGHWAYS AND VERGES (OR LESS THAN 900MM IN NONE VEHICULAR ACCESS THEN A CONCRETE SLAB SHOULD BE PROVIDE ABOVE GRANULAR BED AND SURROUND.

10. BEDDING AND BACKFILL MATERIAL TO CONFORM TO THE REQUIREMENT OF WATER INDUSTRY SPECIFICATION A1B-S2 (TABLE A2).

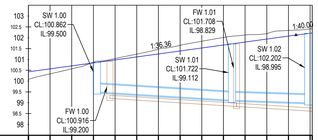
11. THE CHAMBER SIZE OF MANHOLES WITH MORE THAN ONE CONNECTION IN THEM MAY NEED TO BE INCREASED AN INCREMENT TO ACCOMMODATE THE CONNECTIONS AND BENDS.

12. YORKSHIRE WATER POLICY IS NOT TO ACCEPT TYPE "C" BRICK MANHOLES AND 150mM DIA MANHOLE RINGS. INSTEAD IT IS PREFERRED THAT YOU USE A TYPE "B" MANHOLE WITH 1200MM DIA OR 1500MM DIA RINGS, WITH THE OPENING SITED OVER THE CHANNEL WHERE DEPTH OF COVER TO PIPE SOFFIT IS 1 - 1.5M.

13. THE CLEARANCE OF THE CROSSOVER POINTS (MIN 300mm) BETWEEN THE SURFACE WATER, FOUL SEWERS, RISING MAIN AND OTHER SERVICES SHOULD BE SUFFICIENT CLEARANCE TO PROVIDE 150mm GRANULAR BED AND SURROUND AROUND BOTH PIPES.

14. WHERE A B125 COVER AND FRAME HAS BEEN APPROVED, THIS MUST NOT BE COATED IN PLASTIC AND MUST HAVE LIFTING EYES SUITABLE TO SIZED TO ACCOMMODATE STANDARD LIFTING KEYS. SCREW DOWN COVERS ARE NOT ACCEPTABLE.

ROAD 2 PROFILE
SCALE: 1:200 HORZ., 1:40 VERT.
5 x VERT SCALE



CHAINAGE	0+000	0+005	0+010	0+015	0+020	0+025	0+030	0+035	0+040	0+045	0+050	0+055	0+060	0+065
EXISTING GROUND LEVEL	100.331	100.586	100.872	101.042	101.246	101.470	101.650	101.839	102.014	102.125	102.189	102.336	102.412	102.412
ROAD 2 LEVEL	100.566	100.703	100.841	100.978	101.116	101.253	101.391	101.528	101.666	101.803	101.941	102.078	102.208	102.220

HORIZONTAL GEOMETRY: L=8.791; (2.5 L=4.441 R=14.308); L=29.853; L=(9.972 R=15.000); L=14.393

VERTICAL GEOMETRY:
- Length: 61.740; Grad: 2.75%; Start: 0+000.000, Level: 100.428; End: 0+061.740, Level: 102.126
- Length: 3.748; Grad: 2.50%; Start: 0+061.740, Level: 102.126; End: 0+065.488, Level: 102.220; 2.50%

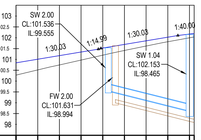
SW INVERT LEVELS	99.500	99.112	99.112	98.995

SW PIPE DATA:
- SW 1.00 – 1.000 / 3750 / @ 1:80 / LENGTH: 31.069
- SW 1.01 – 1.001 / 3750 / @ 1:150 / LENGTH: 17.536
- SW 1.02

FW INVERT LEVELS	99.200	98.829	98.829	98.596

FW PIPE DATA:
- FW 1.00 – 1.000 / 1500 / @ 1:80 / LENGTH: 29.707
- FW 1.01 – 1.001 / 1500 / @ 1:80 / LENGTH: 18.628

Road 3 PROFILE
SCALE: 1:200 HORZ., 1:40 VERT.
5 x VERT SCALE



CHAINAGE	0+000	0+005	0+010	0+015	0+020	0+025	0+030	0+035	0+040
EXISTING GROUND LEVEL	100.517	100.743	100.967	101.196	101.412	101.618	101.817	101.999	102.170
ROAD 3 LEVEL	101.007	101.173	101.340	101.506	101.693	101.859	102.026	102.170	102.103

HORIZONTAL GEOMETRY: L=34.995; L=(20.000 R=60.000); L=(5.610 R=16.000)

VERTICAL GEOMETRY:
- Length: 18.980; Grad: 3.33%; Start: 0+000.000, Level: 100.840; End: 0+018.980, Level: 101.472
- Length: 0.600; Grad: 6.67%; Start: 0+018.980, Level: 101.472; End: 0+019.580, Level: 101.512
- Length: 17.750; Grad: 3.33%; Start: 0+019.580, Level: 101.512; End: 0+037.330, Level: 102.103
- Length: 3.749; Grad: 2.50%; Start: 0+037.330, Level: 102.103; End: 0+041.079, Level: 102.197; 2.50%

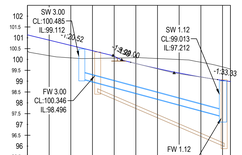
SW INVERT LEVELS	99.555	98.615

SW PIPE DATA:
- SW 2.00 – 2.000 / 3000 / @ 1:20 / LENGTH: 18.815
- SW 1.04

FW INVERT LEVELS	98.994	98.049

FW PIPE DATA:
- FW 2.00 – 2.000 / 1500 / @ 1:20 / LENGTH: 18.915

ROAD 4 PROFILE
SCALE: 1:200 HORZ., 1:40 VERT.
5 x VERT SCALE



CHAINAGE	0+000	0+005	0+010	0+015	0+020	0+025	0+030	0+035	0+040	0+046.84
EXISTING GROUND LEVEL	100.178	100.075	100.049	100.067	100.066	100.047	99.999	99.874	99.653	
ROAD 5 LEVEL	100.650	100.496	100.150	99.813	99.581	99.374	99.192	99.035	98.980	

HORIZONTAL GEOMETRY: Length: 19.746; Grad: -4.87%; Start: 0+000.000, Level: 101.137; End: 0+019.746, Level: 100.175; L=39.969; L=(5.109 R=10.000); L=(2.358 R=16.000)

VERTICAL GEOMETRY:
- Length: 2.000; Grad: -10.02%; Start: 0+019.746, Level: 100.175; End: 0+021.746, Level: 99.975
- Length: 20.00; K Value: 10.000; PVI Station: 0+033.840
- Length: 2.094; Grad: -5.00%; Start: 0+021.746, Level: 99.975; End: 0+023.840, Level: 99.870
- Length: 2.996; Grad: -3.00%; Start: 0+043.840, Level: 99.070; End: 0+046.836, Level: 98.980; -3.00%

SW INVERT LEVELS	99.112	97.363

SW PIPE DATA:
- SW 3.00 – 3.000 / 3000 / @ 1:18 / LENGTH: 32.122
- SW 1.12

FW INVERT LEVELS	98.496	95.983

FW PIPE DATA:
- FW 3.00 – 3.000 / 1500 / @ 1:12 / LENGTH: 30.261
- FW 1.12

PRELIMINARY

No.	Revision	Drawn	Job Manager	Project Director	Date
P15	ROAD NAME UPDATED	JS	EM	VB	07.07.20

Drawing Revisions
Note: * indicates signatures on original issue of drawing or last revision of drawing

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Client **KEEPMOAT HOMES**

Project **CARLTON ROAD BARNSLEY BARNSLEY**

Title **LONG SECTIONS**

Scale	AS SHOWN	DO NOT SCALE	
Drawn	JS	Designer	NT
Drafting Check	VB	Design Check	VB
Approved (Project Director)			
Date			

This Drawing must not be used for Construction unless signed as Approved

Drawing No. **44-12501429-C030**
Original Size **A0**
Rev. **P15**