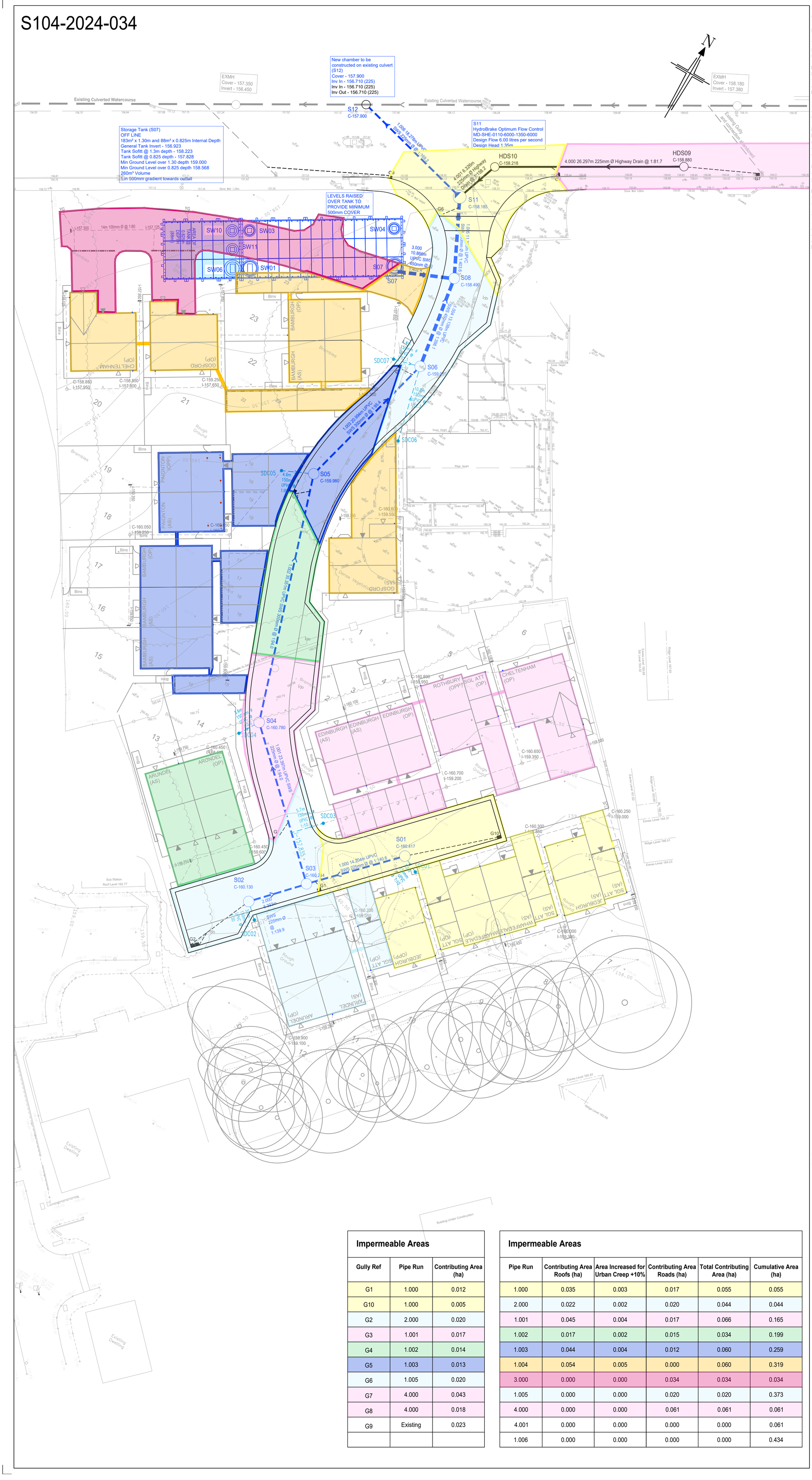
S104-2024-034



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YORKSHIRE WATER NOTES:

1. All dimensions in millimeters unless stated otherwise.
2. All adoptable sewer works and material to be in accordance with The Water Services Association "Code for Adoption Design and Construction Guidance", The Relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemarked".
3. All oversized manhole products (circular vertical units, cover slabs, adjusting and corbel units) and all ancillary concrete products are to be built in full compliance with BS EN1917 and BS 2911-3+A1
4. All precast concrete units in oversized manholes must have a design working life of 100 year minimum in accordance with BS8500-1:2015+A2:2019 - Table A.5.
5. DC-4 design chemical class for concrete in precast concrete manholes (circular vertical units, cover slabs, adjusting and corbel units) including all ancillary concrete products should be constructed for an intended design life of 100 year minimum.
6. 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.
7. Filled ground must be filled and consolidated under the supervision and to the satisfaction of the Yorkshire Water before any sewer works are carried out.
8. Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or in-directly). 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 drain/land drainage run-off.
9. Cover slabs must carry the BSI Kitemark or will be rejected by the 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.
10. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
11. "Sewers must have 5 metres clearance from trees and hedges or the width of the canopy at mature height.
12. 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 areas) then a concrete slab should be provided above granular bed and surround.
13. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
14. 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.
15. Yorkshire Water's policy is that brick manholes and 1050mm diameter manhole rings are not preferred. Instead, it is preferred that you use a type "B" manhole with 1200mm diameter, 1350mm diameter or 1500mm diameter rings, with the opening sited over the channel where depth of cover to pipe soffit is 1 - 1.5m
16. Adoptable plastic sewer pipes to be BSI Kitemarked (certified to WIS 4-35-01 and BS/EN13476). Adoptable plastic sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer lengths. Plastic channel sections in manholes are not acceptable and Yorkshire Water would prefer clayware channel in manholes. We have found that plastic channels are difficult to set in concrete because they float and a satisfactory finish cannot be obtained on the benching.
17. The minimum crushing strength for clay pipes should be as follows: 100mm dia. 40KN/m, 150mm dia. 40KN/m, 225mm dia. 45KN/m and 300mm dia. 72KN/m. The minimum crushing strength for concrete pipes should be - (Class 120 to EN 1916/BS5911-1 2002). Plastic pipes should conform to WIS 4-35-01 and BS EN13476.
18. Where a B125 cover and frame has been approved, this must not be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting keys. Screw down covers are not acceptable.
19. There should be enough clearance at crossovers to accommodate bedding to both pipes, approx. 300mm : if crossover is near the rocker then the clearance needed may be increased".

Rev:	Date:	Amendment:	DRN	CHK	APR
H	02.06.25	Impermeable areas updated to suit new site layout	IE		
G	12.02.25	Architects layout updated plus associated revisions	IE		
F	13.08.24	Surface water pipe material changed to UPVC	IE		
E	26.07.24	Drainage detail and notes updated	IE		
D	05.07.24	YW comments 26 June 2024	IE		
C	10.06.24	Site layout and associated updates made	IE		
B	23.05.24	Site layout updated including visitor parking bays	IE		
A	16.05.24	Site layout and associated updates made	IE		

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Client: Orion Homes

Status:

Scale: 1:250 | Size: A1 - 594 x 841 | Drawn: IE | Chkd: NB | Appvd:

Project: Residential Development, Whitehall Road West, Birkenshaw

Title: Impermeable Areas

Drawing No: 23/341/500/006 | Revision: H
Job No: 23-341 | Date: 21.02.24

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Impermeable Areas

Gully Ref	Pipe Run	Contributing Area (ha)
G1	1.000	0.012
G10	1.000	0.005
G2	2.000	0.020
G3	1.001	0.017
G4	1.002	0.014
G5	1.003	0.013
G6	1.005	0.020
G7	4.000	0.043
G8	4.000	0.018
G9	Existing	0.023

Impermeable Areas

Pipe Run	Contributing Area Roofs (ha)	Area Increased for Urban Creep +10%	Contributing Area Roads (ha)	Total Contributing Area (ha)	Cumulative Area (ha)
1.000	0.035	0.003	0.017	0.055	0.055
2.000	0.022	0.002	0.020	0.044	0.044
1.001	0.045	0.004	0.017	0.066	0.165
1.002	0.017	0.002	0.015	0.034	0.199
1.003	0.044	0.004	0.012	0.060	0.259
1.004	0.054	0.005	0.000	0.060	0.319
3.000	0.000	0.000	0.034	0.034	0.034
1.005	0.000	0.000	0.020	0.020	0.373
4.000	0.000	0.000	0.061	0.061	0.061
4.001	0.000	0.000	0.000	0.000	0.061
1.006	0.000	0.000	0.000	0.000	0.434