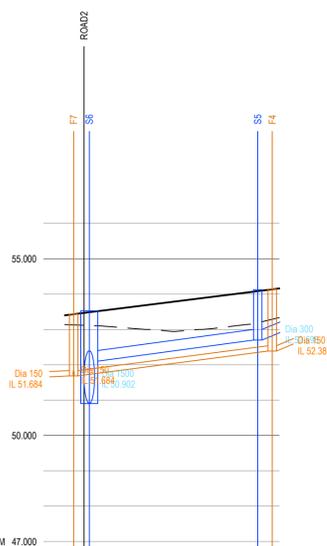
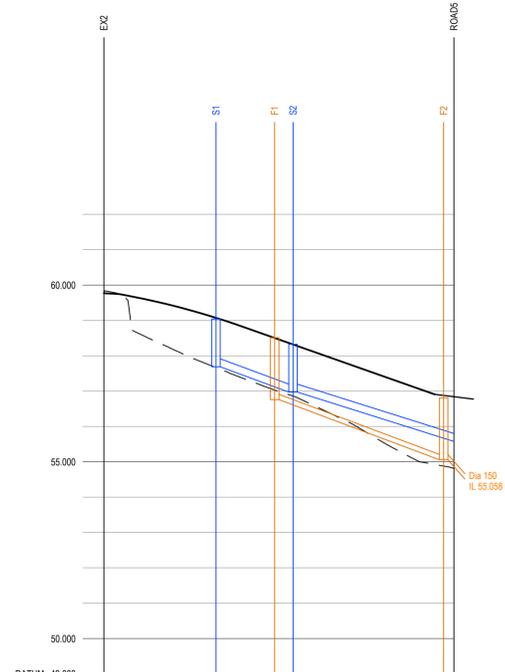


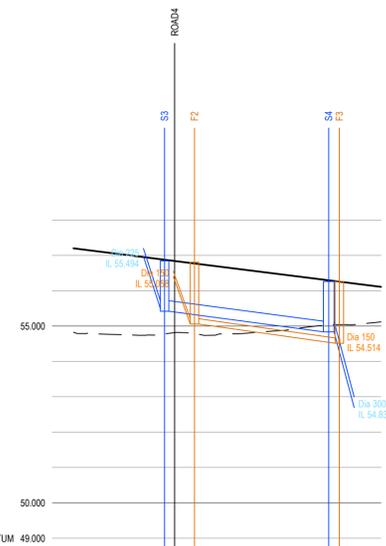
- To be read in conjunction with Eastwood and Partners drawings prefixed 48864.
- All pipes shall be either:
 - A - Verified clay to BS EN 295 with a minimum crushing strength as follow -
150 dia - 40 kN/m
 - 225 dia - 45 kN/m
 - 300 dia - 72 kN/m
 - B - FVC (certified to WIS 4-35-01 & BS EN 13476)
 - C - Class 120 concrete to BS 5911-1:2002/EN 1916.
- All pipes should always connect soft to soft unless noted otherwise.
- All sewers to have BS kitemark status (certified to WIS 4-35-01 & BS EN 13476). Maximum pipe length to be 3m. Plastic channel sections in manholes are not acceptable. Clay channel sections shall be used.
- 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 more vehicular access areas) then a concrete slab should be provided above granular bed and surround.
- Manhole covers shall have a clear opening of 600 and shall be class D400 to BS EN 124 with 150 deep frames in highways.
- Pipes entering manholes and road gullies shall have a flexible joint within 600 of the inside the manhole or gully joining with a short fitter pipe.
- The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
- Sewers must have 5m clearance from trees and hedges.
- All trenches in roads and paved areas shall be backfilled with Type 1 DOT granular sub-base material, or other granular material approved by the highway authority.
- Fill ground must be filled and consolidated under the supervision and to the satisfaction of Yorkshire Water before any sewer works are carried out.
- All in situ concrete to be designated mix FND2 to BS 8500-1 unless agreed otherwise.
- The invert levels at the proposed points of connection to existing public sewers shall be checked before any new drains are constructed. Any variation to the levels shown on the drawing shall be notified to Eastwood & Partners.
- 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.
- Cover levels are indicative only. Covers to be set to suit camber/gradient of existing and proposed roads.
- Cover slabs must carry the BS 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 filled 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.
- All foul lateral sewers and drains to be 1500 unless noted otherwise.
- Yorkshire Water policy is that Type "C" brick manholes and 1000mm dia manhole rings are not preferred. Instead it is preferred that you use a type "S" 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.
- Manhole covers shall have a clear opening of 600mm and shall be Class D400 to BS EN 124 with 150mm deep frames in highways.
- 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.
- All adoptable sewer works and material to be in accordance with "Code for Adoption". The Relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and Kitemark.
- Yorkshire Water is not obliged to accept filter drain/land drainage run-off into the public sewer network or adoptable drainage system (directly or indirectly). 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.
- Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.
- Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
- Adoptable plastic sewer pipes to be BS Kitemarked (certified to WIS 4-35-01 and BS EN 13476). 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.
- 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 surround of a certain mm that exceeds this (200mm).
- All adoptable laterals to be 1500 and VC unless stated otherwise.



CHAINAGE	0.000	10.000	20.000	27.331	38.884
EXISTING GROUND LEVEL	53.137	53.020	53.008	53.000	53.004
ALIGNMENT LEVEL	53.400	53.650	53.900	54.150	54.150
VERTICAL ALIGNMENT	G= 2.500% 1:40.0				
HORIZONTAL ALIGNMENT					
STORMWATER COVER LEVEL	53.527			54.122	
STORMWATER INVERT	52.102			52.898	
STORMWATER DETAILS	Pipe 1.004 Dia 300 Circular CLAY 1 in 40				
STORMWATER LENGTHS	23.860				
FOULWATER COVER LEVEL	54.494			54.137	
FOULWATER INVERT	51.684			52.387	
FOULWATER DETAILS	Pipe 1.003 Dia 150 Circular CLAY 1 in 40				
FOULWATER LENGTHS	28.135				



CHAINAGE	0.000	10.000	15.000	22.454	24.101	26.175	30.000	37.668	40.000	48.131	49.986
EXISTING GROUND LEVEL	59.780	59.161	58.800	57.340	56.900	56.567	56.567	56.486	56.486	54.815	54.986
ALIGNMENT LEVEL	59.787	59.787	59.406	59.127	58.800	58.800	59.004	57.261	56.510	56.510	56.510
VERTICAL ALIGNMENT	G= 2.500% 1:40.0 L= 15.000 KF= -4.94588 G= -7.033% 1:14.2										
HORIZONTAL ALIGNMENT	R= 35.000										
STORMWATER COVER LEVEL		59.039		58.323							
STORMWATER INVERT		57.689		56.973		56.973					
STORMWATER DETAILS		Pipe 1.000 Dia 225 Circular CLAY 1 in 15			Pipe 1.001 Dia 225 Circular CLAY 1 in 16						
STORMWATER LENGTHS		10.889		23.857							
FOULWATER COVER LEVEL		56.510		56.808							
FOULWATER INVERT		55.780		55.058							
FOULWATER DETAILS		Pipe 1.000 Dia 150 Circular CLAY 1 in 14			Pipe 1.000 Dia 150 Circular CLAY 1 in 14						
FOULWATER LENGTHS				24.538							



CHAINAGE	0.000	10.000	12.935	14.336	17.143	20.000	30.000	36.164	37.039	40.000	43.575
EXISTING GROUND LEVEL	54.825	54.739	54.743	54.743	54.682	54.682	55.045	55.118	55.118	55.118	55.118
ALIGNMENT LEVEL	57.200	56.950	56.700	56.450	56.200	56.111	56.200	56.200	56.200	56.200	56.200
VERTICAL ALIGNMENT	G= -2.500% 1:40.0										
HORIZONTAL ALIGNMENT											
STORMWATER COVER LEVEL		56.844						56.262			
STORMWATER INVERT		55.419						54.637			
STORMWATER DETAILS		Pipe 1.002 Dia 300 Circular CLAY 1 in 40									
STORMWATER LENGTHS			23.259								
FOULWATER COVER LEVEL		56.808						56.264			
FOULWATER INVERT		55.058						54.514			
FOULWATER DETAILS		Pipe 1.001 Dia 150 Circular CLAY 1 in 38									
FOULWATER LENGTHS			20.561								

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REV	DESCRIPTION	SIG	CHK	DATE

HOOPER HOMES

WEST STREET, WORSBROUGH, BARNSLAY

LONGITUDINAL SECTIONS - SHEET 2

