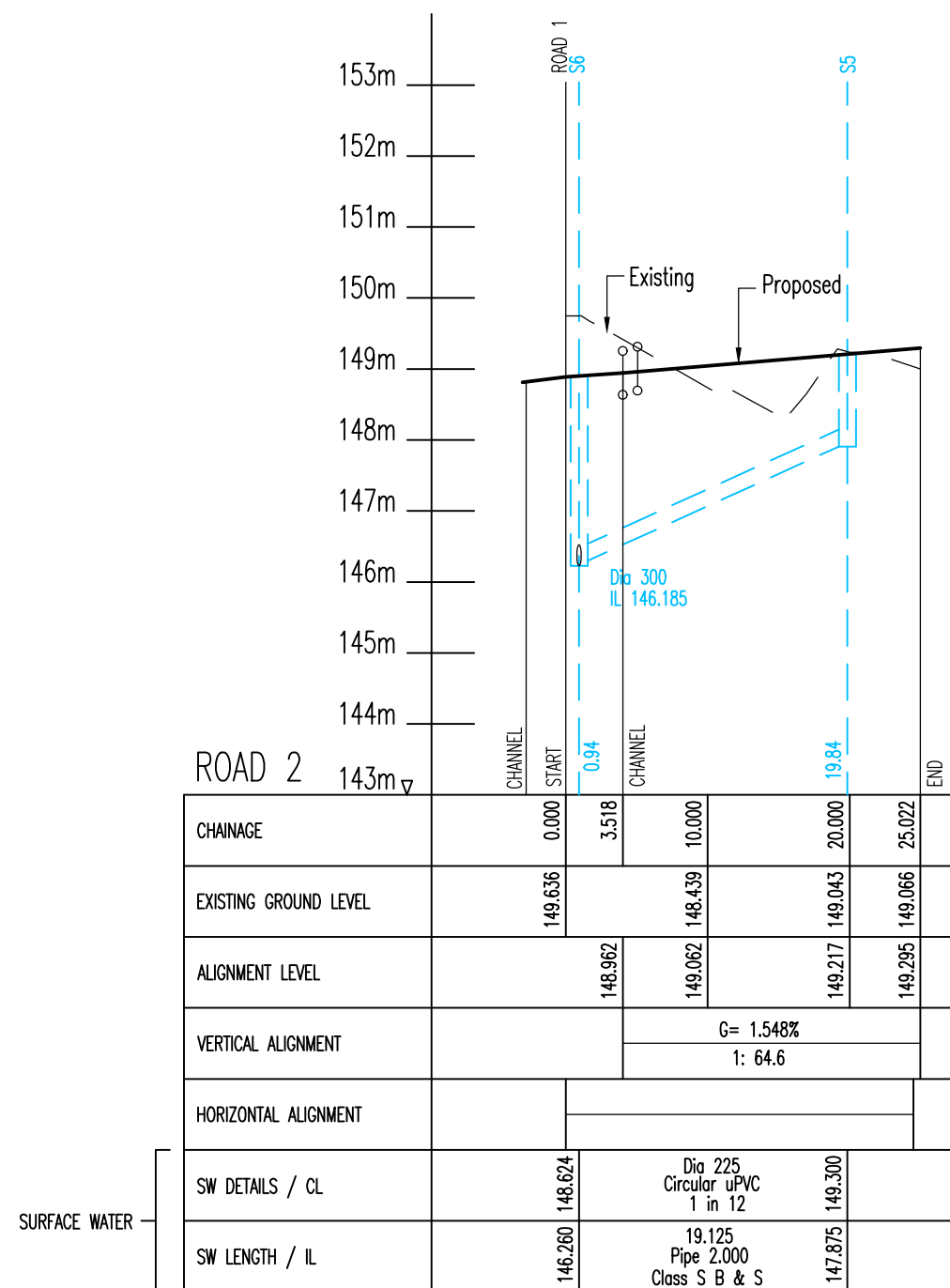
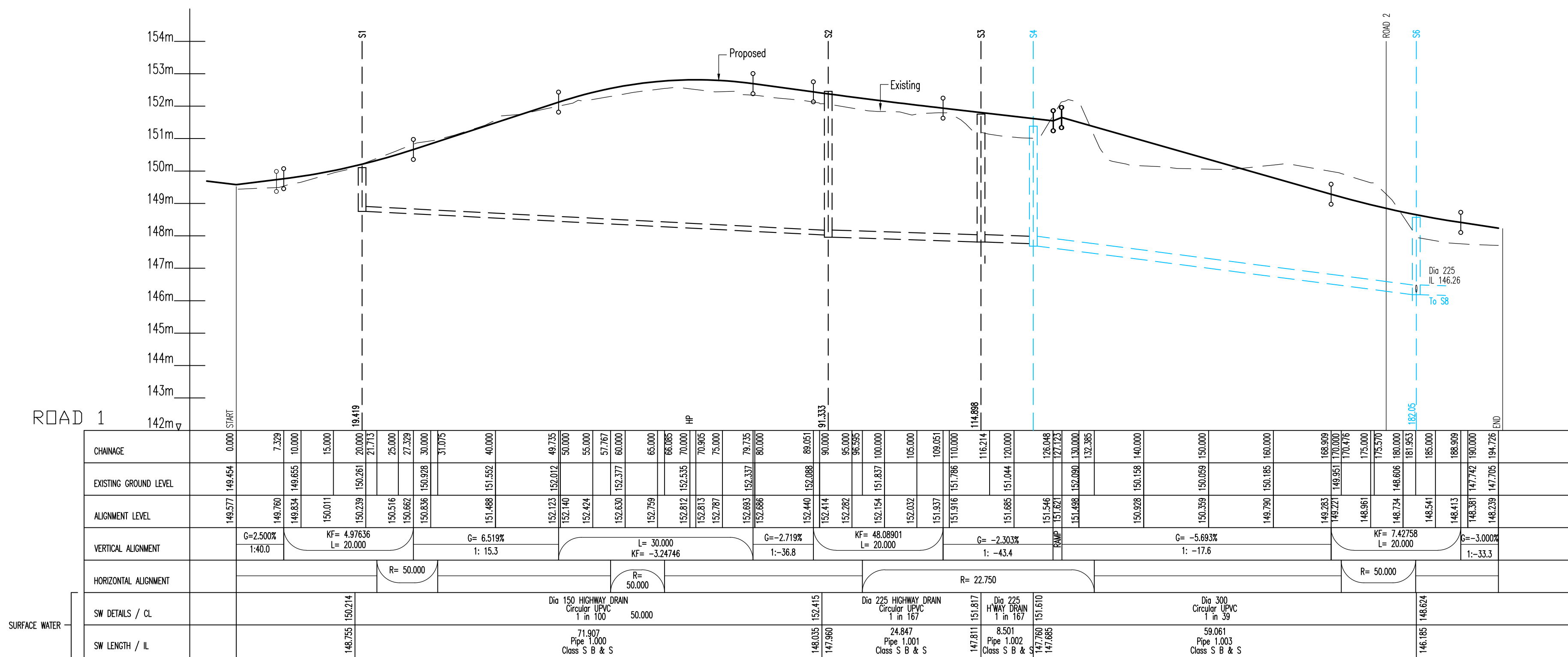


H-3-264-633



K	E	Y	N	O	T	E	S
	Storm water sewer		<u>Yorkshire Water General Notes</u>				
	Foul water sewer		1. S104 Agreement ref. 150.				
	Ex Combined sewer		2. All adoptable sewer works and material to be in accordance with Code for Adoption (2020), the relevant British/European and Yorkshire Water's Standards/Requirements/Addendum to the Mechanical and Electrical Specification and be Kitemarked.				
	Highway Drain		3. 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.				
	Existing Ground Level		4. Filled ground must be filled and consolidated under the supervision, and to the satisfaction, of Yorkshire Water before any sewer works are carried out.				
	Proposed Ground Level		5. Cover slabs must carry the BS Kitemark or will be rejected by the Yorkshire Water's inspection and will be replaced at the contractor's expense.				

- ### Yorkshire Water General Notes
1. SI404 Registered ref. 150.
 2. All adoptable sewer works and material to be in accordance with Code for Adoption 2020, the relevant British/European and Yorkshire Water's Standards/Requirements/Acknowledgements to the Mechanical and Electrical Specification and be Kitemarked.
 3. 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.
 4. Final ground must be level to the finished British/European and Yorkshire Water's Standards/Requirements/Acknowledgements to the Mechanical and Electrical Specification, and the installation of Yorkshire Water before any sewer works are carried out.
 5. Cover slabs must carry the BS1 Kitemarked 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 must be fitted above the cover to bring the size of the opening to the BS1 Kitemarked or the Yorkshire Water specified cover size. Please refer to the Concrete Society Association (CPA), "Technical Bulletin" issued autumn 2004 for kitemarked cover slab opening sizes.
 6. The adoptable sewer must be a minimum of 1 m and manholes 0.5m from kerb footings and service roads.
 7. Adoptable sewer must be installed a minimum of 30m from trees and hedges.
 8. Sewers to be laid in Class "S" bedding (100mm 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 the granular bed and surround.
 9. Adoptable sewer must be to BS1 Kitemarked (certified to WS 4–35–01 or BS EN13476). Adoptable sewer pipes to be laid in maximum 3 metre lengths unless there is a specific operational need to lay longer.
 10. Plastic channel sections in manholes are not acceptable and c/closure is preferred. Plastic channels are difficult to set in concrete and a satisfactory finish cannot be obtained on the benching.
 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 manhole and 1000mm dia manhole rings. Instead it is preferred that you use a type "B" manhole with a diameter of 1000mm dia. If you are using solid 1000mm dia over the channel where depth of cover to pipe is less than 1.2m.
 13. Surface water and foul rising mains to be provided with overlap top above the rising mains.
 14. If any of the above are to be used then the following should apply:
 - a. All adoptable sewers to be BS1 Kitemarked (certified to WS 4–35–01).
 - b. Bedding and backfill material to conform to the requirements of Water industry Specification 4–08–02 (Table 2).
 15. Where plastic pipes are proposed for adoptable sewers, structural calculations for plastic pipes must be submitted with the report to prove that the ground conditions are suitable for the plastic pipes to be produced.

For plastic pipes are installed into the ground prior to laying full technical approval, the developer must provide a CUVT survey of the prospective adoptable sewers and a deformation test (Lift–Line test) of the plastic pipes. For plastic pipes to be installed into the ground for 100mm fall & 150mm dia surface water pipes up to 1.2m depth. For depths greater than 1.2m, restricted access opening to 350mm is required for safety reasons.
 16. Maximum depth of drainage chamber to be 2m, where depth exceeds 2m, manholes must be constructed as shafts.
 17. Yorkshire Water is not obliged to accept filter drain/drain drainage units into the public sewer network or adoptable drainage system (directly or in-directly). An alternative method of disposal of the land drainage runoff will therefore be required and you will have to liaise with the Land Drainage Authority/Land Drainage Section with regard to the disposal of the filter drain/drain drainage runoff.
 18. Sulphate resisting cement (C20–C02) and precast concrete products must be used or a laboratory report proving that such precautions are not necessary.
 19. Strength of vitrified clay pipes (to be used) to be 400kN/m for 1000, 400kN/m for 1500, 450kN/m for 2250 and 720kN/m for 3000. All concrete pipes to be Class 4000 to BS EN 1916:2001 11–12002.
 20. Strength of U/PVC pipes and fittings have adequate strength for use in situations when pipe and fittings to SNA or SNE of BS EN1401–1:1998 are suitable.
 21. The nominal short term stiffness (SIR) of a plain wall pipe of equivalent wall thickness is not greater than 8 kNm.
 22. The nominal short term stiffness if not less than 8 kNm
 23. The nominal 50 year stiffness if not less than 3 kNm
 24. All levels of existing drainage to be confirmed prior to work commencing on the sewer.
 25. The contractor must allow for any fee's required for road and sewer opening permits, sewer connections and make the appropriate applications.

SUBJECT TO THE
APPROVAL OF
ALL RELEVANT
AUTHORITIES

N	MI	20.12.21	Updated to suit revised road layout rec	15.12.21	RJ	MI	
N	MI	24.11.21	Rd1 Levels amended, foul MH removed		RJ	MI	
L	JMC	29.10.21	Road design amended, Road 3 removed		RJ	MI	
K	JMC	19.10.21	Road design amended, Road 3 removed		MI	MI	
J	BHB	12.10.21	Revised for Construction Issue		RJ	MI	
H	JMC	07.10.21	Road design updated		MI	MI	
G	JMC	23.09.21	FW outfall location amended, Highway drainage lifted and gradients amended		RJ	MI	
F	RF	24.3.21	<u>Code for Adoption (2020) to be used</u>				
E	RF	08.3.21	Updated following drainage review				
D	JMC	15.07.20	Drainage design revised, Tank added		ARP	ARP	
C	RF	05.6.20	Ramp added at Ch 125.83				
B	RF	01.6.20	Drainage revised to remove 15006 pipes				
A	RJB	28.11.19	Revision to manholes F1 to F3		ARP	ARP	
	DJC	10.04.19	Issued for approval			TC	
Rev	By	Date	Revision		Chk	Apvd	

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PROJECT ABBEY ROAD NORTH, SHEPLEY			
CLIENT CAMSTEAD			
DRAWING STATUS PRELIMINARY			
Scale 1:500H 1:100V © A1	Date APR 19	Drawn DJD Chk. TC	
Drg. No. 1305/11/06.01			Rev N