

N O T E S

IWINL General Notes

1. All adoptable sewer works and material to be in accordance with INWL requirement.
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 the INWL. Any sewer works are carried out, the contractor shall ensure cover slabs must carry the BS Kitemark or will be rejected by the INWL inspector.
4. 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 600x600mm for the INWL specified cover size. Please refer to the Concrete Pipe Systems Association (CPSA), 'Technical Bulletin' issued autumn 2004 for Kitemarked cover slab opening sizes.
5. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb footings and service manholes.
6. Sewers must have 5 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).
7. 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 slabs should be provided above the granular bed and surround.
8. Adoptable sewers to be to BS Kitemarked (certified to WS 4-35-01 and BS EN 2876). Suitable for use in maximum 3 metre deep lengths unless they are used for a specific operational need to lay longer.
9. Plastic channel sections in manholes are not acceptable and clayware is preferable. Plastic channels are difficult to set in concrete and a satisfactory finish cannot be obtained on the benching.
10. The chamber size of manholes with more than one connection and they may need to be increased in incident to accommodate the connections and bends.
11. INWL will not accept a "top" type manhole with 100mm dia manhole rings. Instead it is preferred that you use a type "B" manhole with 1200mm dia or 1500mm dia. rings, with the opening sized over the channel where depth of cover to pipe soffit is 1-1.5m.
12. Surface water and foul rising mains to be provided with market tape above the rising mains.
13. If plastic pipes are to be used then the following should apply:-
 - a. All adoptable sewers to be BS Kitemarked (certified to WS 35-01).
 - b. Bedding and backfill material to conform to the requirements of Water Industry Specification 4-08-02 (Table A2)
14. Where plastic pipes are proposed for adoptable sewers, structural calculations for the plastic pipes and a site investigation report to prove that the ground condition is suitable for the plastic pipes are to be produced.
15. Where plastic pipes are installed into the ground prior to getting full technical approval, the contractor must provide a full and prospective adoptable sewer and a deformation test (Light-Line test) of the plastic pipes.
16. Demarcation chambers to be a min. 450mm³ chamber for 100mm⁴ foul & 150mm⁴ surface water pipes up to 1.2m deep. For depths greater than 1.2m, restricted access opening to 350mm is required for safety reasons.
17. Maximum depth of demarcation chamber to be 2m, where depth exceeds 2m, manhole to be constructed as type B manhole.
18. Where the cover and frame has not been approved, this must not be coated in plastic and must have lifting eyes suitably sized to accommodate standard lifting jacks. Screen down covers are not acceptable.
19. INWL is not obliged to accept filter drain/land drainage runoff 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/land drainage runoff is required.
20. Sulphate resisting cement (C20-C22) and precast concrete products must be used on a concrete bed and frame has not been approved, this must not be coated in plastic. Strength of lifting clay pipes (if used) to be 400kN/m for 100A, 400kN/m for 150A, 450kN/m for 225A and 720kN/m for 300A. All concrete pipes to be Class C20 to concrete to EN 1216/BS 911-12002.
21. All levels of existing drainage to be confirmed prior to work commencing on site.
22. The contractor must allow for any fee's required for road and sewer opening permits, sewer connections and make the appropriate applications.
23. There should be enough clearance to accommodate the bedding for both pipes, approx 300mm; if crossover is never occur then the clearance needed may be increased.
24. All plastic drainage to be installed under the highway to be HAPAS approved.
25. Pipe with less than 0.2m cover require concrete protection. Please refer to drawing 0425/87/14.02.

REFER TO 0425/87/03.01 & 03.02
CROSSOVER LOCATIONS

SUBJECT TO THE
APPROVAL OF
ALL RELEVANT
AUTHORITIES

F	CR	10.07.23	Notes amended.			MI
D	RJ	07.09.23	S62-S64 Manholes amended		RJ	MI
C	JMG	09.11.22	Drainage updated to avoid services & new outfall levels			MI
B	JMG	08.07.22	Updated for IWN submission			MI
A	JMG	27.06.22	Revised to Millers Layout & new road design			MI
	DJG	27.05.22	Issued for approval			MI
Rev	By	Date	Revision		Chk	Apvd



Northwest House ● 5 & 6 Northwest Business Park ● Servia Hill, Leeds ● LS6 2QH
T 0113 245 8498 F 0113 244 3864 E leeds@arpassociates.co.uk W www.arpassociates.co.uk

ARP Associates is a trading division of ARP Geotechnical Ltd, a company registered in England and Wales with number 3771811, whose registered office is at 5/6 Northwest Business Park, Servia Hill, Leeds LS6 2QH

TABLE

LONGITUDINAL SECTIONS
SHEET 5 OF 5

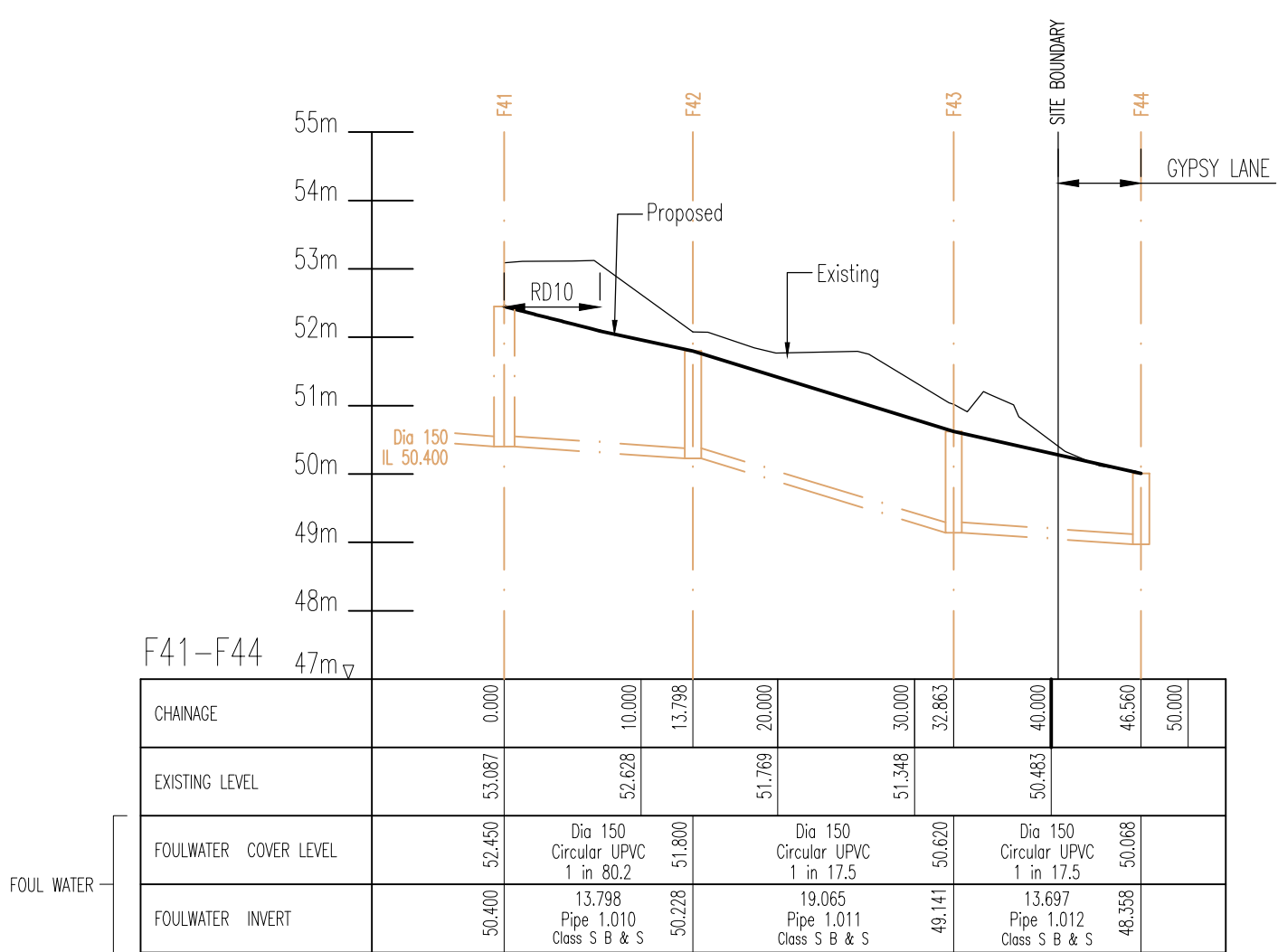
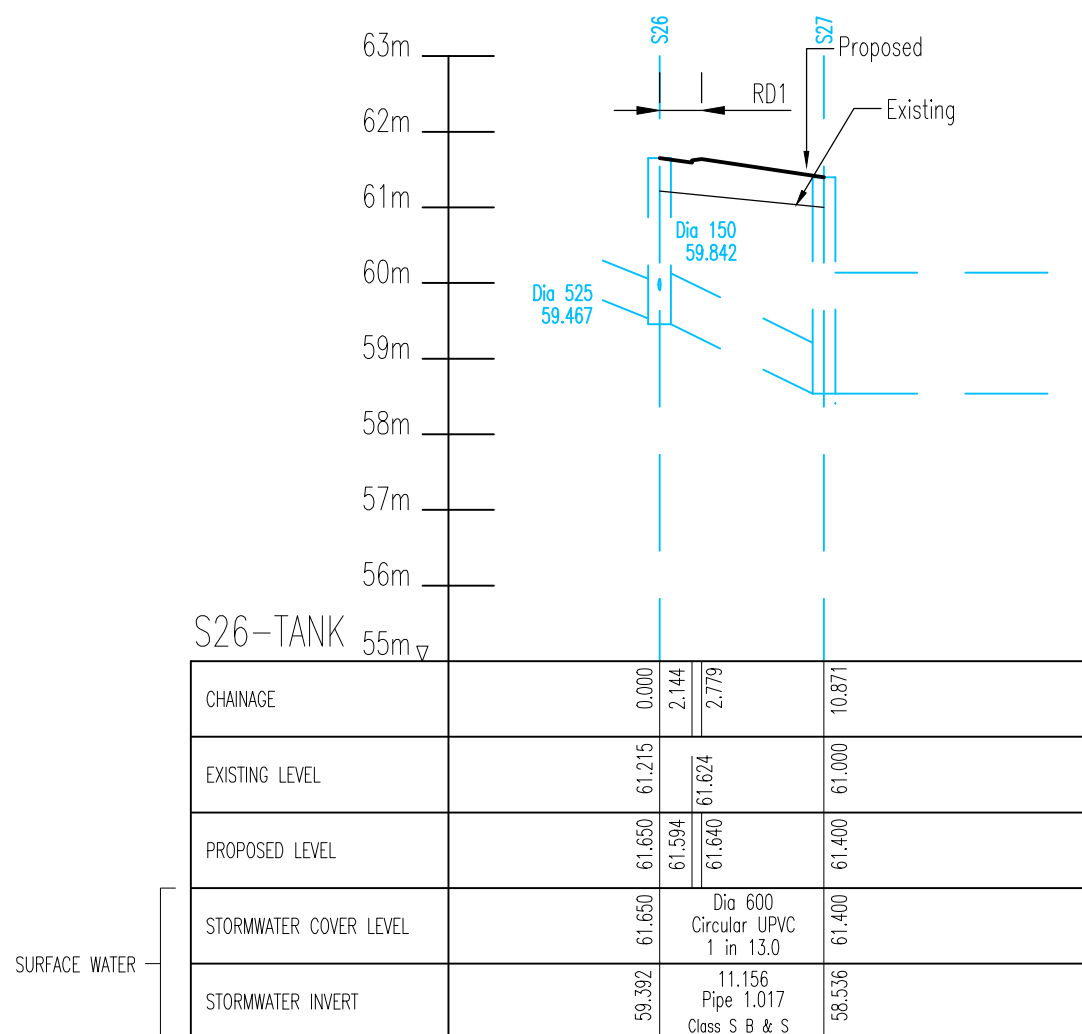
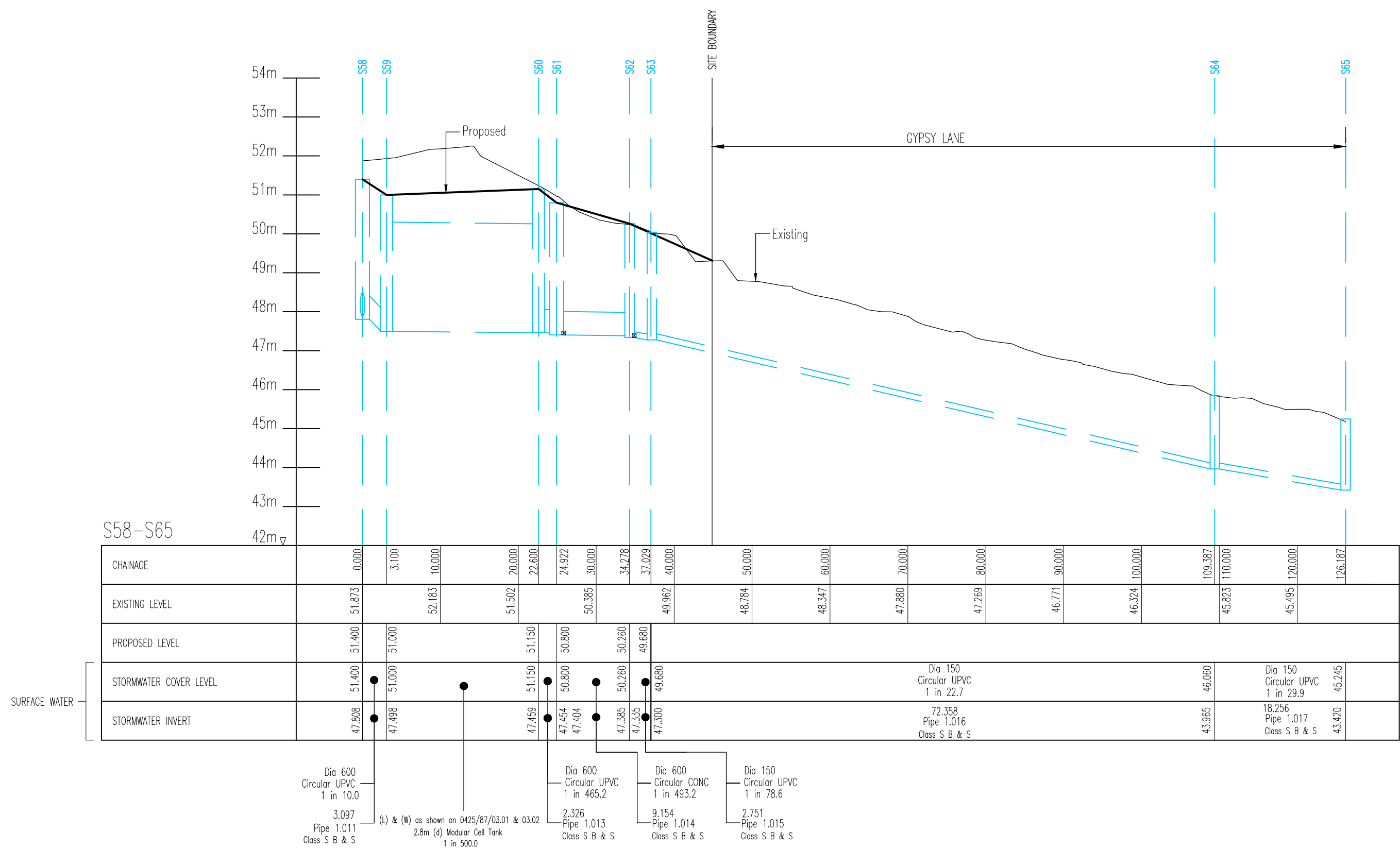
PROJECT
GYPSY LANE,
WOMBWELL

MILLER HOMES
(YORKSHIRE) LTD

DRAWING STATUS
PRELIMINARY

Scale	Date	Drawn
1:500H 1:100V @ A1	MAY 22	DJG
		Chk. MI

Drg. No. 0425/87/06.05	Rev E
--	---



NOTE
There should be enough clearance to accommodate the bedding for both pipes, approx 300mm. If crossover is near the rocker then the clearance needed may be increased.