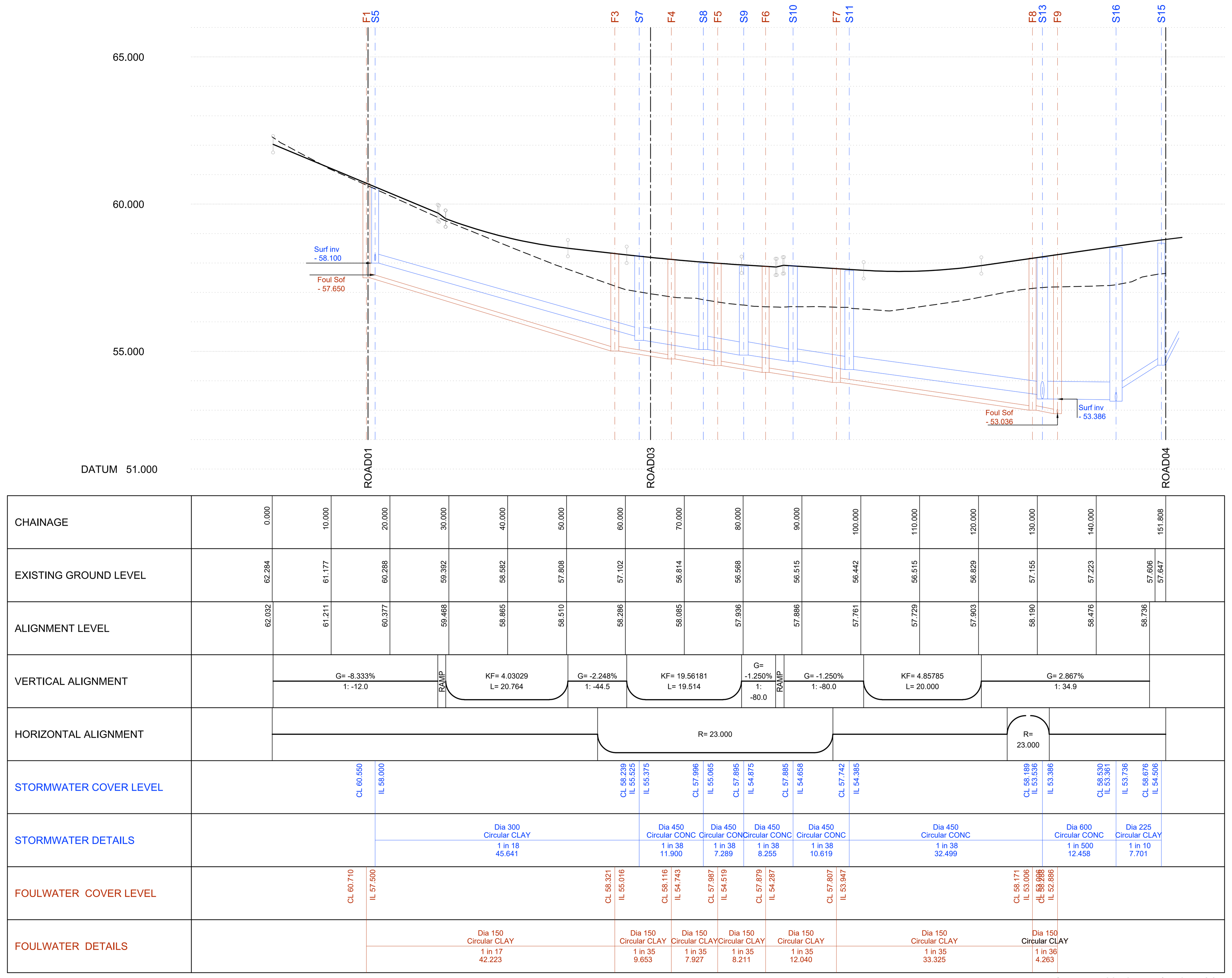
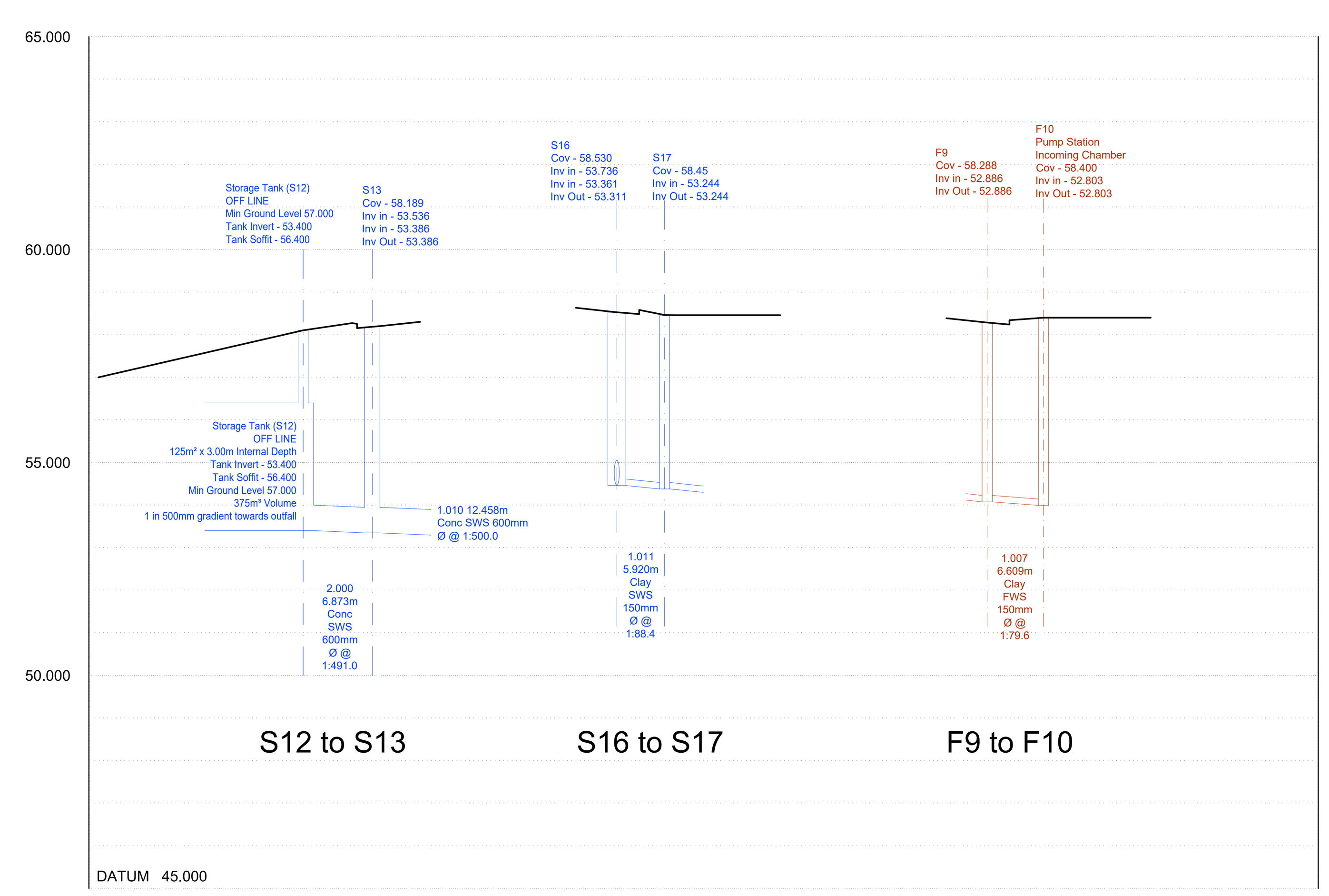
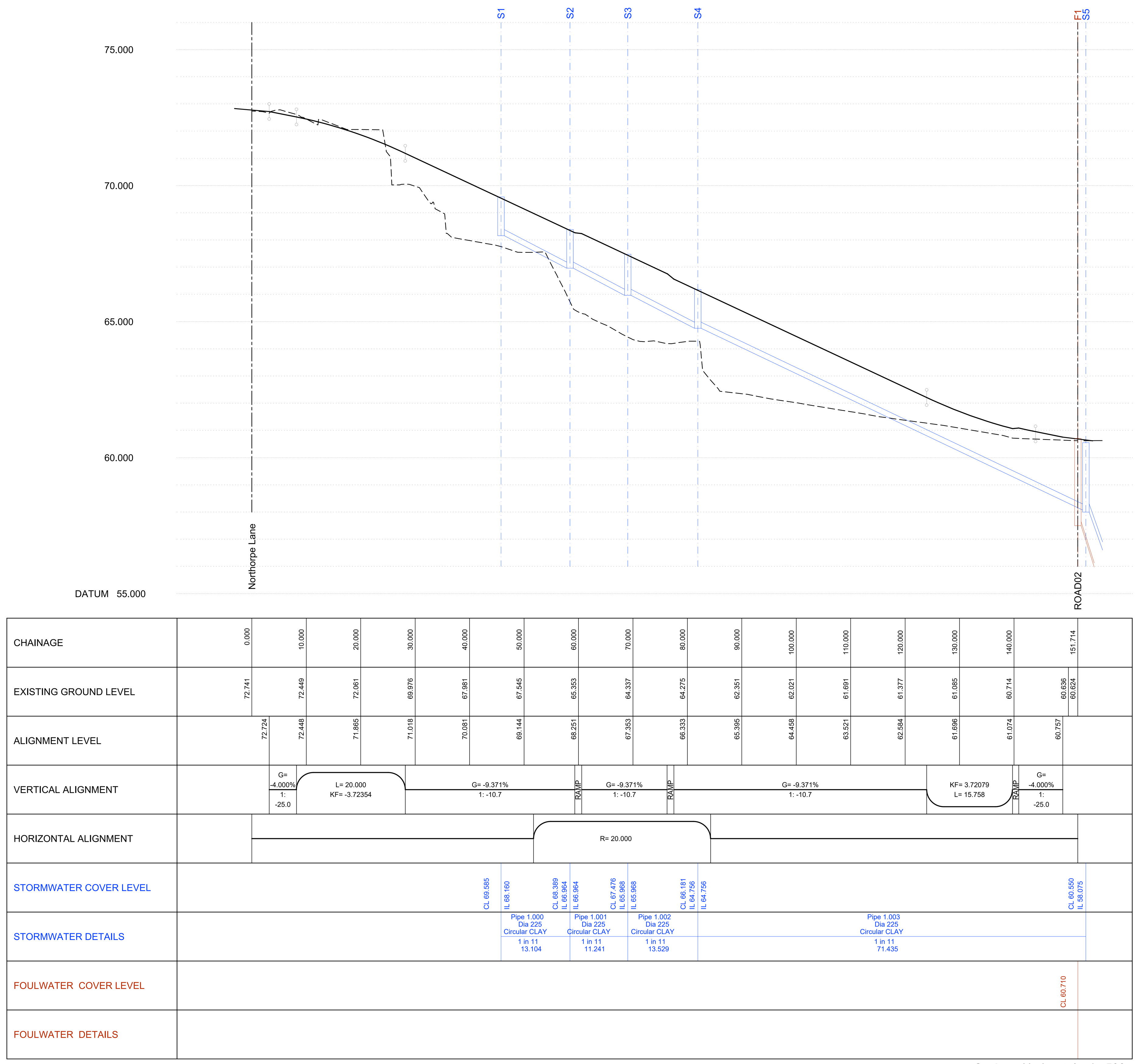


ROAD02

Scales - Horizontal - 1 : 500
Vertical - 1 : 100





ROAD01

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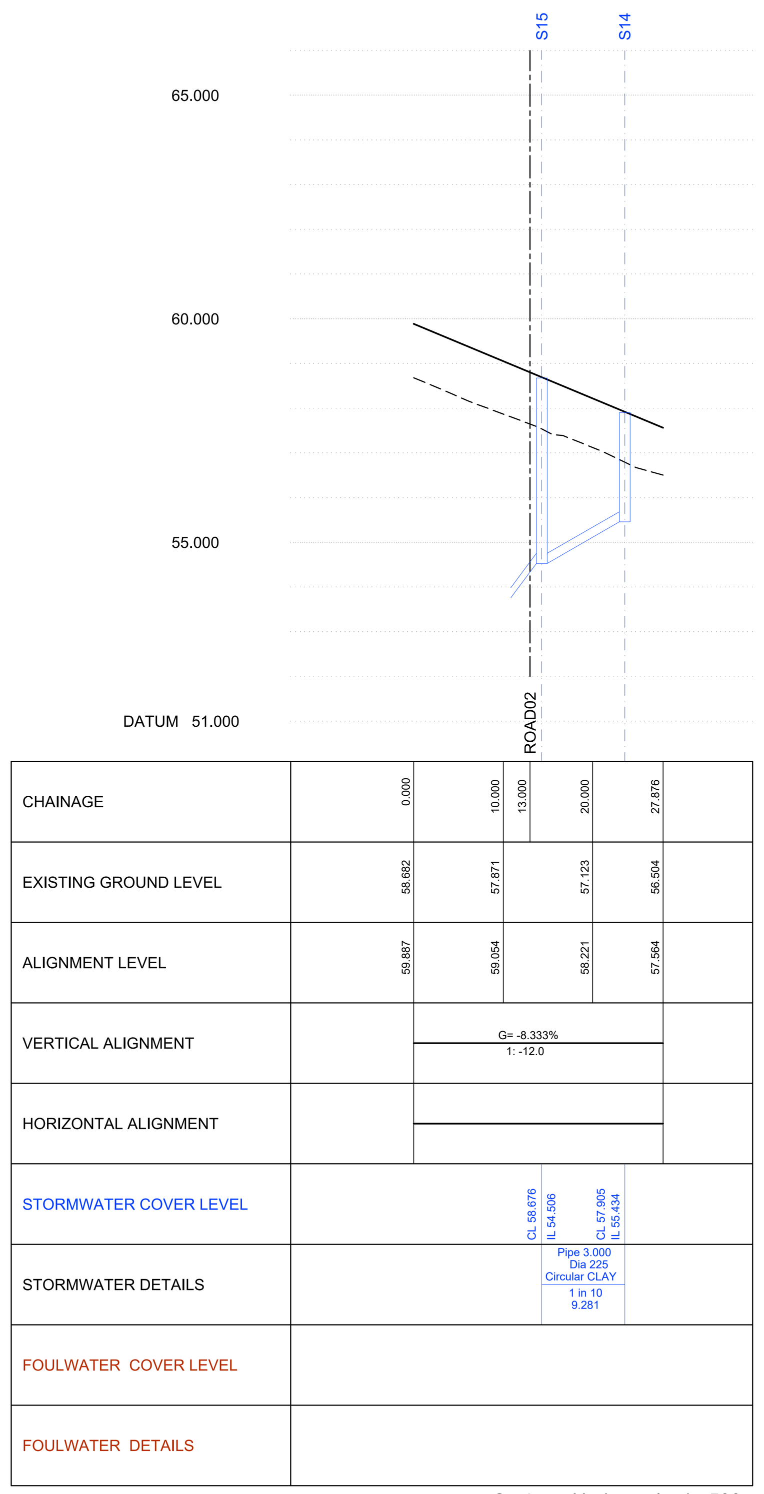

ROAD04

Scales - Horizontal - 1 : 500
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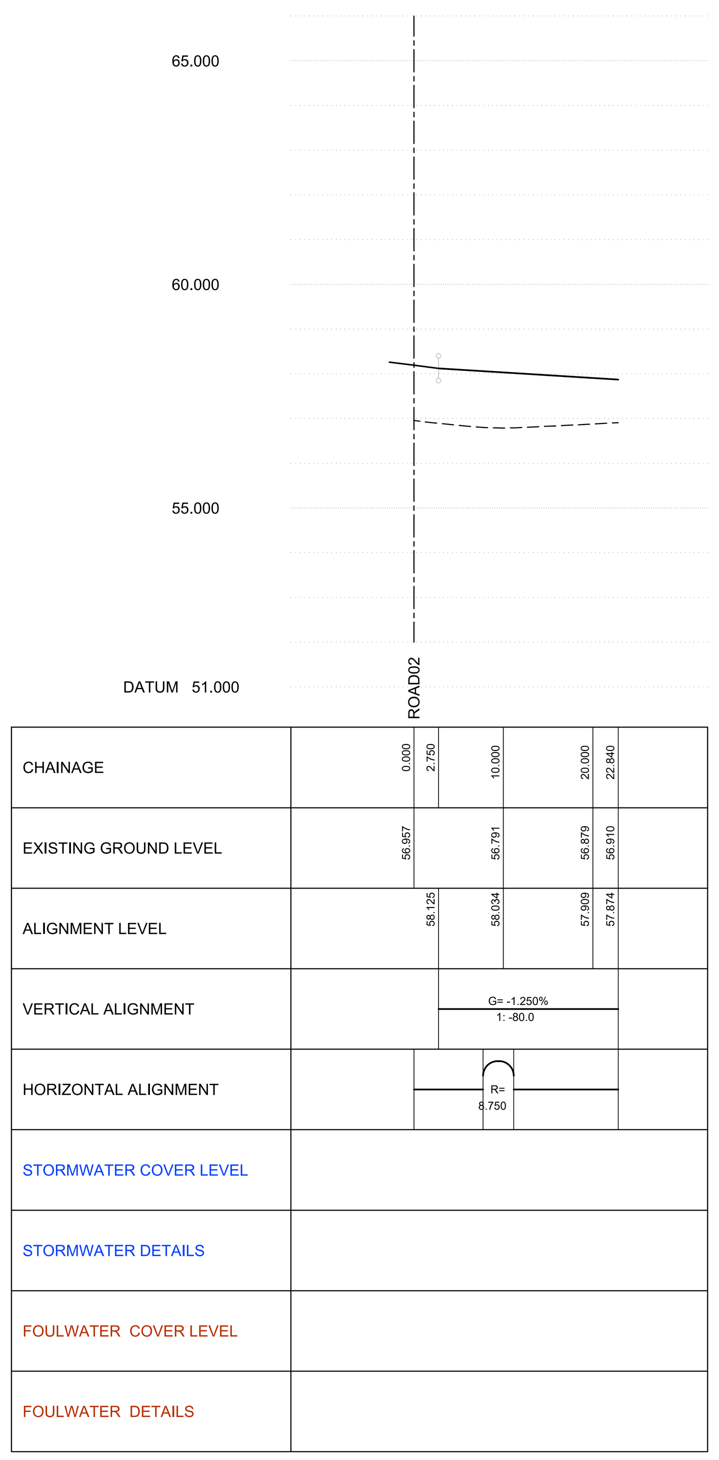

ROAD03

Scales - Horizontal - 1 : 500
Vertical - 1 : 100

YORKSHIRE WATER NOTES:

1. All adoptable sewer works and material to be in accordance with Sewerage Sector Guidance Design and Construction Guidance [Code for Adoption]. The Relevant British/European and Yorkshire Water's Standards/Requirements/Local Practice for the Adoption of Small Submersible Foul and Surface Water Pumping Stations 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 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.
5. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.
6. Sewers must have 5 metres clearance from trees and hedges or the width of the canopy at mature height.
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 non-vehicular access areas) then a concrete slab should be provide above granular bed and surround.
8. There must 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".
9. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (Table A2).
10. 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.
11. 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.
12. Yorkshire Water policy is that Type “C” brick manholes and 1050mm dia. manhole rings are not preferred. 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. 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 SEWERAGE SECTOR GUIDANCE DESIGN AND CONSTRUCTION GUIDANCE [CODE FOR ADOPTION]. THE RELEVANT BRITISH/EUROPEAN AND YORKSHIRE WATER'S STANDARDS/REQUIREMENTS/LOCAL PRACTICE FOR THE ADOPTION OF SMALL SUBMERSIBLE FOUL AND SURFACE WATER PUMPING STATIONS AND KITEMARKED.

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

SEWERS TO BE LAID IN CLASS 'S' BEDDING 150mm GRANULAR BED AND SURROUND

Extract from Table A2 WIS 4-08-02

Processed granular bedding and sidefill material for flexible pipes

Pipe nominal bore (mm) se note (d)	Nominal maximum particle size (mm)	Material specified in British Standards see note (a)
100	10	10mm nominal single size
Over 100 to 150	14	10 or 14mm nominal single size or 14mm to 5mm graded
Over 150 to 300	20	10-14 or 20mm nominal single size or 14mm to 5mm graded or 20mm to 5mm graded
Over 300 to 500	20	14 or 20mm nominal single size or 14mm to 5mm graded or 20mm to 5mm graded
Over 550	40	14-20 or 40mm nominal single size or 14mm to 5mm graded or 20mm to 5mm graded or 40mm to 5mm graded

Notes:

(a) Proposed granular material to include aggregates to BS 882, air-cooled blast furnace slag to BS1047 and lightweight aggregates BS3797

(c) For the purpose of this table, PE pipe of 630mm O.D. can be regarded as having a nominal bore of over 550mm irrespective of wall thickness

(d) Nominal bore is used in preference to DN because of the different nominal size classifications for flexible pipes

Minimum recommended trench widths for structural wall pipes in poor ground conditions

Native Soil Modulus between 3 and 4 Mpa
Typical Soil Classifications: Very loose gravel, loose sand, medium dense clayey silty sand, firm clay

Nominal Pipe Diameter (mm)	150	225	300	375	450	525	600	750	900
Minimum Trench Width (mm)*	450	525	600	750	900	1050	1200	1500	1800

* A vertical trench face has been assumed to allow a modulus of 7 Mpa to be achieved for the pipe bedding and sidefill material

Other Assumed Values: Depth of cover = 6.00 meter max.
Traffic Loading = Main Road
Pipe Stiffness = SNB

Note: Where the native soil modulus is below 3Mpa or the depth of cover exceeds 6.0m guidance should be sought from the pipe manufacturer regarding structural design and installation details

Nominal Bore of Pipe (mm)	Alternative Aggregate Sizes Single Sized	(mm) Graded (Where directed)
100 - 125	10	-
150 - 200	10 or 14	14 - 5
225 - 300	10, 14 or 20	14-5 or 20-5
375 - 500	14 or 20	14-5 or 20-5
Exceed 500	14, 20 or 40	14-5 or 20-5 or 40-5

Pipe Diameter (mm)	Minimum Crushing Strength Clay Pipes
150	40KN/m
225	45KN/m
300	72KN/m
375 Concrete	45KN/m
1200 Concrete	144KN/m
1500 Concrete	180KN/m

Concrete ,minimum crushing strength should conform to class 120 EN1916/BS5911-1:2002

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Rev:	Date:	Amendment:	DRN	CHK	APR

BRYAN G HALL
CONSULTING CIVIL & TRANSPORTATION PLANNING ENGINEERS
LEEDS T 0113 246 1555 LONDON T 0203 5532336
Suite E15 | Josephs Well
Hanover Walk | LEEDS | LS3 1AB
W www.bryanghall.co.uk
E transportleeds@bryanghall.co.uk

Client: Chartford Homes

Status:

Scale: 1:250 Drawn: NB Chkd: IE Appvd: JP
Size: A0 - 1189 x 841

Project: Residential Development
Northorpe Lane, Mirfield

Title: Longsections

Drawing No: 25/376/500/002 Revision: -
Job No: 25-376 Date: 12/12/25

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