H-3-264-818

Note:

No work is to be carried out until the appropriate techincal approvals are in place and relevant planning conditions are discharged. Any work carried out on site before technical approval is obtained and planning conditions are discharged is entirely at the contractors risk.

Drainage Notes

CDM Regulations - Drainage

1. All design work has been carried out with health & safety aspects given full consideration. Wherever possible risks have been eliminated from the design, however due to the nature of this type of work it is not possible to remove all risk.

The contractor shall provide satisfactory responses via suitable method statements as to the manner in which they propose to carry out the work and deal with any highlighted risk, in particular the following :-

· All trench excavations, regardless of depth.
· Guarding to edges of excavations to prevent injury.
· Guarding of the works outside normal working hours.
· Undermining of adjacent roads or structures.
· Confined spaces operations.
· Dealing with existing services.
· Traffic management on existing highways.
· Procedures to be followed in the event of an emergency.
· Methods of working where ground contamination may be present. ·
Dealing with existing sewer flows.

The above list is by no means exhaustive, but does highlight operations that present a risk to both contractors and the general public.

1. 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 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 regarding the disposal of the filter drain/land drainage run-off.

5. Cover slabs must carry the BSI kite mark 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 load bearing slab should be fitted above the cover slab to bring the size down to 600 x 600mm for the Yorkshire Water specified cover size. Please refer to the Concrete Pipe Systems Association (CPSA), "Technical Bulletin" issued autumn 2004 for Kitemarked cover slab opening sizes.

6. The adoptable sewers should be a minimum of 1m and manholes 0.5m from kerb faces and service margins.

7. Sulphate resistant cement (C20-DC2) and precast concrete products must be used or a laboratory report provided proving that such precautions are not necessary.

8. Sewers must have 5 metres clearance from trees and hedges or the width of the canopy at mature height.

9. 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 nonvehicular access areas**) then a concrete slab should be provided above granular bed and surround.

10. Bedding and backfill material to conform to the requirement of Water Industry Specification 4-08-02 (**Table A2**).

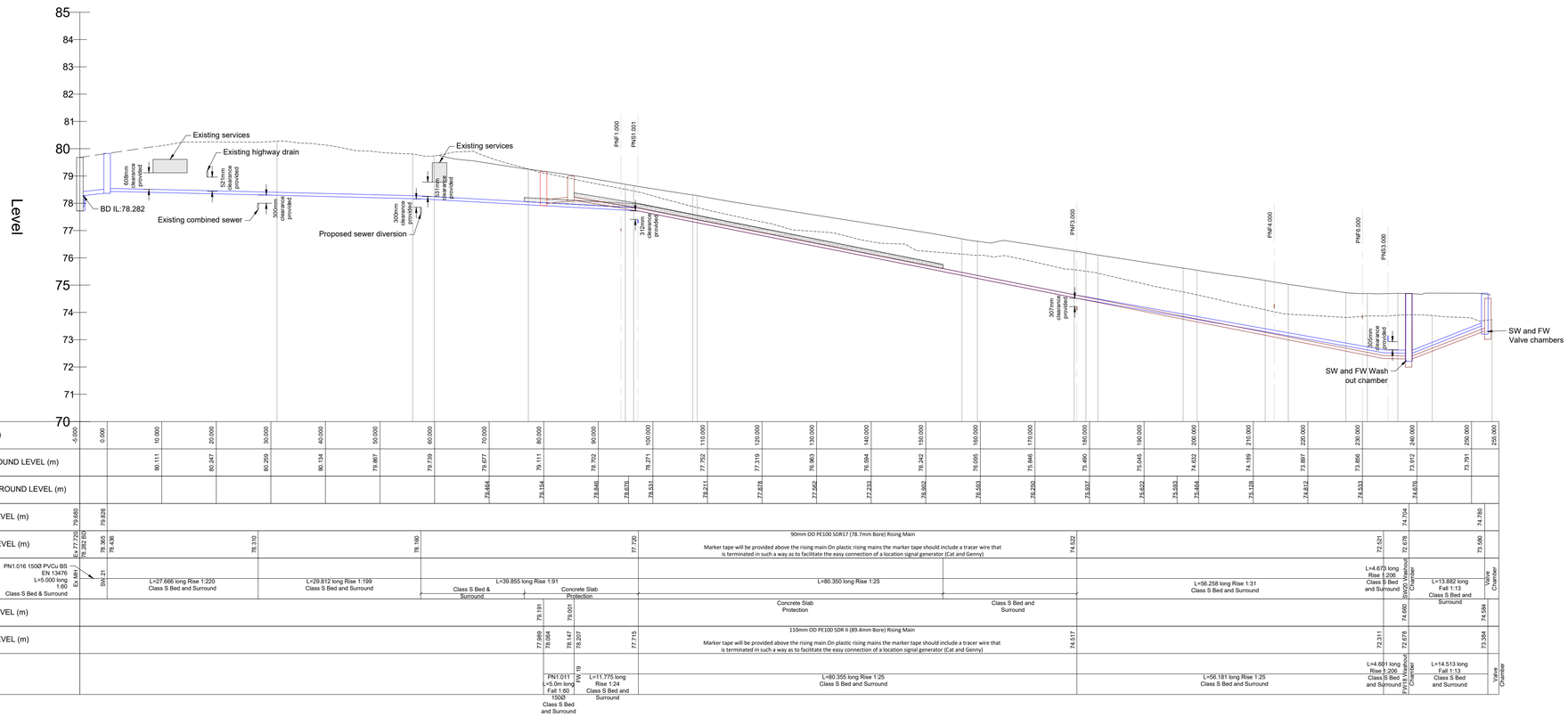
11. Yorkshire Water policy is that Type "C" brick manholes and 1050mm diameter manhole rings are not preferred. Instead, it is preferred that you use a type "B" manhole with 1200mm diameter or 1500mm diameter rings, with the opening sited over the channel where depth of cover to pipe soffit is 1 - 1.5m.

12. 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 require clay ware channel in manholes.

13. All levels related to Met Geo-environmental P20-00984. Using the OS GPS Network and applying OSGM15 National Geoid Model to obtain local area corrections.

14. 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.

15. 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 need to be increased".



CHAINAGE (m)	-5.000	0.000	10.000	20.000	30.000	40.000	50.000	60.000	70.000	80.000	90.000	100.000	110.000	120.000	130.000	140.000	150.000	160.000	170.000	180.000	190.000	200.000	210.000	220.000	230.000	240.000	250.000	255.000
EXISTING GROUND LEVEL (m)			80.111	80.347	80.259	80.134	79.867	79.739	79.677	79.111	78.702	78.271	77.752	77.319	76.963	76.594	76.242	76.095	75.846	75.490	75.045	75.023	74.602	74.189	73.807	73.886	73.912	73.791	
PROPOSED GROUND LEVEL (m)									79.464	79.154	78.848	78.676	78.531	78.211	77.878	77.662	77.233	76.902	76.693	76.255	75.937	75.622	75.593	75.464	75.128	74.812	74.533	74.678		
SW COVER LEVEL (m)	79.660	79.626																									74.784	74.780
SW INVERT LEVEL (m)	Ex.77.720	78.282 BD	78.365	78.436			78.310				78.160				77.720							74.522					72.521	72.678	73.980
SW DETAILS	PN1.016 150Ø PVCu BS EN 13476 L=5.000 long 1:60 Class S Bed & Surround	Ex. MH	SW.21	L=27.666 long Rise 1:220 Class S Bed and Surround			L=29.812 long Rise 1:199 Class S Bed and Surround				L=39.855 long Rise 1:91 Class S Bed & Surround / Concrete Slab Protection				L=80.350 long Rise 1:25 Concrete Slab Protection / Class S Bed and Surround							L=56.258 long Rise 1:31 Class S Bed and Surround					L=4.673 long Rise 1:206 Class S Bed and Surround	SW and FW Wash out chamber	L=13.882 long Fall 1:13 Class S Bed and Surround	Valve Chamber
FW COVER LEVEL (m)										79.191	79.000																74.682	74.584	
FW INVERT LEVEL (m)										77.889	78.064	78.147	77.715									74.517					72.311	72.678	73.384
FW DETAILS											PN1.011 L=5.0m long Fall 1:60 150Ø Class S Bed and Surround	FW.19	L=11.775 long Rise 1:24 Class S Bed and Surround		L=80.355 long Rise 1:25 Class S Bed and Surround							L=56.181 long Rise 1:25 Class S Bed and Surround					L=4.601 long Rise 1:206 Class S Bed and Surround	FW Wash out Chamber	L=14.513 long Fall 1:13 Class S Bed and Surround	Valve Chamber

RISING MAIN LONGSECTION
SCALE: H 1:500,V 1:100. DATUM: 70.000

Rev	Revision	By	Chk	Date
P4	CL's updated to suit latest road level changes	LW	MH	16.09.22
P3	Altered to suit dual rising main	LW	MH	08/08/2022
P2	Washout chamber added	LW	MH	20.06.22
P1	Initial Issue	LW	MH	10.06.22

SCALE @ A1	ISSUING OFFICE	MSJ PROJECT NUMBER
As Indicated	Leeds	219112

STATUS: S0
PURPOSE OF ISSUE: WORK IN PROGRESS

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PROJECT: High Street, Shafton

TITLE: Surface Water Rising Main Longsection

CLIENT: Vistry Partnerships

DRAWING NUMBER: 219112-MSJ-ZZ-XX-DR-D-4200
REV: P4