SURFACE WATER AND FOUL WATER DRAINAGE SCHEME

for

Mr PHILIP HOLT

REPLACEMENT RESIDENTIAL DWELLING

at

TRAPP FARM

176 FLEETWOOD ROAD SOUTH, THORNTON CLEVELEYS FY5 5NR

NOVEMBER 2021

REFORD

Consulting Engineers Limited

7 Hall Road, Fulwood, Preston, PR2 9QD

Mobile: 07970 265334 Email: r.e.ford@virginmedia.com

Company number: 09620365 VAT Reg. 215 5638 12

CONTENTS

SECTION	TITLE	PAGE
1	INTRODUCTION	3
2	BASE INFORMATION	4
3	PROPOSED DRAINAGE SCHEME	6
4	SUMMARY AND CONCLUSIONS	8
	APPENDICES	
Α	Location plan	
В	United Utilities sewer records	
С	Proposed drainage layout	

1. INTRODUCTION

1.1 This surface water and foul water drainage scheme has been produced on behalf of Mr Philip Holt to discharge Condition 5 of the planning approval from Wyre Borough Council (Reference 19/00001/FUL) for the erection of a replacement dwelling, following demolition of existing farmhouse, at Trapp Farm, 176 Fleetwood Road South, Thornton Cleveleys, FY5 5NR.

1.2 Condition 5 states the following:

Prior to the commencement of development, a drainage scheme, which shall detail measures for the attenuation and the disposal of foul and surface waters, together with details of existing and proposed ground and finished floor levels to achieve the drainage scheme and any flood risk mitigation deemed necessary, shall be submitted to and approved in writing by the Local Planning Authority. The surface water drainage scheme shall be in accordance with the hierarchy of drainage options outlined in Policy CDMP2 of the Adopted Local Plan 2011-31 or any equivalent policy in an adopted Local Plan that replicates the existing Local Plan, with evidence of an assessment of the site conditions to include site investigation and test results to confirm infiltrations rates to be submitted. For the avoidance of doubt, surface water must drain separate from the foul and unless otherwise agreed in writing by the Local Planning Authority, no surface water shall discharge to the public sewerage system either directly or indirectly.

No part of the development shall be occupied or brought into first use until the drainage works and levels have been completed in accordance with the approved scheme. Thereafter the agreed scheme shall be retained, managed and maintained in accordance with the approved details.

1.3 This drainage scheme describes the existing site conditions and proposed development. It assesses the potential impact of proposals on existing drainage and includes a proposed scheme for the provision of new drainage to serve the proposed development.

2. BASE INFORMATION

Existing site

- 2.1 The site is located to the west of Fleetwood Road South (B5268) from which access is taken. A location plan is included within Appendix A.
- 2.2 The proposal relates to the existing detached house, 176 Fleetwood Road South, that is to be demolished and replaced with a new detached residential dwelling of similar size.

Site geology

- 2.3 The online Soilscapes Viewer has identified the site lying in a region characterised by two types of soils:
 - Naturally wet, loamy and clayey soils of coastal flats with naturally high groundwater
 - Slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils with impeded drainage
- 2.4 Based upon the ground conditions identified, infiltration is unlikely to provide a viable drainage solution for surface water runoff generated by the site. Infiltration tests have therefore not been carried out.

Understanding of existing drainage local to the site

- 2.5 Within the garden centre that lies to the east of Fleetwood Road South, lies a drainage ditch approx. 60m to the northeast of the site. The drain serves the garden centre site.
- 2.6 United Utilities sewer records identifies a 300mm diameter public sewer within Fleetwood Road South that flows to the north. The sewer records are included within Appendix B.
- 2.7 Private drainage lies within the site. Surface water runoff from the existing building to be demolished is discharged into the public sewer that lies within Fleetwood Road South. Foul water from the existing building to be demolished is also discharged into

the public sewer that lies within Fleetwood Road South. The connection to the public sewer is via the existing manhole at the entrance to the site.

Proposed development

2.8 The development is to comprise a replacement detached residential dwelling.

3. PROPOSED DRAINAGE SCHEME

3.1 The proposed drainage layout is included within Appendix C.

Surface water drainage

- 3.2 In accordance with the National Standards for Sustainable Drainage, the drainage scheme should incorporate the use of Sustainable Drainage (SUDS) where possible. The approach promotes the use of infiltration features in the first instance. If drainage cannot be achieved solely through infiltration due to site conditions or contamination risks, the preferred options are (in order of preference):
 - (i) a controlled discharge to a local waterbody or watercourse, or
 - (ii) a controlled discharge into the public sewer network (depending on availability and capacity).
- 3.3 The rate and volume of discharge should strive to provide betterment and be restricted to the pre-development values as far as practicable.
- 3.4 Due to the nature of the underlying geology, infiltration of surface water back into the ground is not feasible on this site.
- 3.5 It is not possible to make a connection into the drain within the garden centre that lies to the east of Fleetwood Road South, approx. 60m to the northeast of the site, as it lies within third party land.
- 3.6 Surface water runoff from the existing building to be demolished is discharged into the public sewer that lies within Fleetwood Road South via an existing connection.
- 3.7 The development is for a replacement single residential dwelling and as such the developed site is not likely to generate 5 l/s surface water runoff from it. It is therefore intended that surface water runoff from only the building roof will be collected by a piped system and an unrestricted surface water discharge will be made into the public sewer that lies within Fleetwood Road South, using the existing connection from the site.

- 3.8 To reduce the area of impermeable surfaces draining to the positive drainage network from the developed site a permeable surface is to be used around the building and surface water from the private drive and car parking area will be allowed to runoff to channel drains or to adjacent areas of gravel filter strips and the surrounding soft areas of landscaping where it will infiltrate into the adjacent upper strata and be either taken up by plants or evaporated.
- 3.9 Any exceedance flows will run off the site onto Fleetwood Road South.

Foul Water Drainage

- 3.10 United Utilities sewer records identifies a 300mm diameter public sewer within Fleetwood Road South that flows to the north. Private drainage lies within the site. Foul water from the existing building to be demolished is discharged into the public sewer that lies within Fleetwood Road South via an existing connection.
- 3.11 It is therefore intended that foul water discharges from the replacement single residential dwelling will discharge into the public sewer that lies within Fleetwood Road South using the existing connection from the site.

4. SUMMARY AND CONCLUSIONS

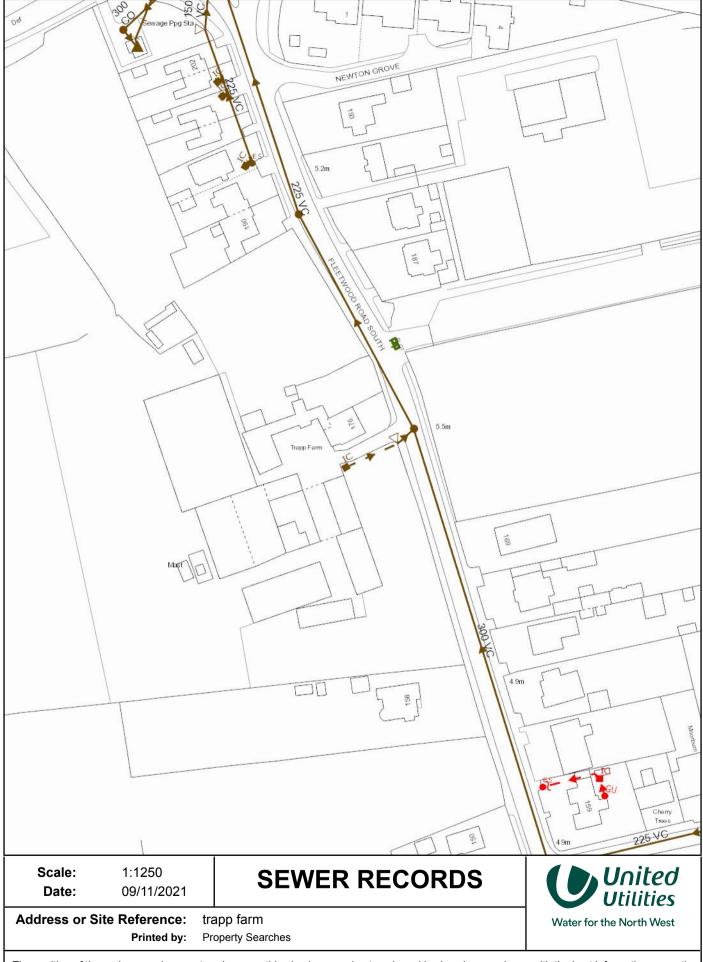
- 4.1 This surface water and foul water drainage scheme has been produced on behalf of Mr Philip Holt to discharge Condition 5 of the planning approval from Wyre Borough Council (Reference 19/00001/FUL) for the erection of a replacement dwelling, following demolition of existing farmhouse, at Trapp Farm, 176 Fleetwood Road South, Thornton Cleveleys, FY5 5NR.
- 4.2 The development is for a replacement single residential dwelling and as such the developed site is not likely to generate 5 l/s surface water runoff from it. It is therefore intended that surface water runoff from only the building roof will be collected by a piped system and an unrestricted surface water discharge will be made into the public sewer that lies within Fleetwood Road South, using the existing connection from the site.
- 4.3 Foul water discharges from the replacement single residential dwelling will discharge into the public sewer that lies within Fleetwood Road South also using the existing connection from the site.

APPENDIX A



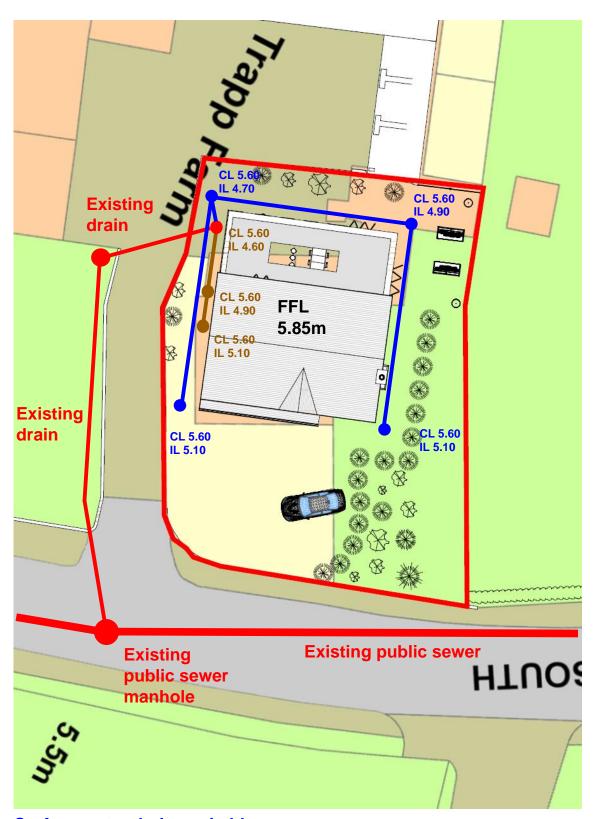
LOCATION PLAN

APPENDIX B



The position of the underground apparatus shown on this plan is approximate only and is given in accordance with the best information currently available. United Utilities Water will not accept liability for any loss or damage caused by the actual position being different from those shown.

APPENDIX C



Surface water drainage in blue Foul water drainage in brown Existing drainage in red

PROPOSED DRAINAGE LAYOUT