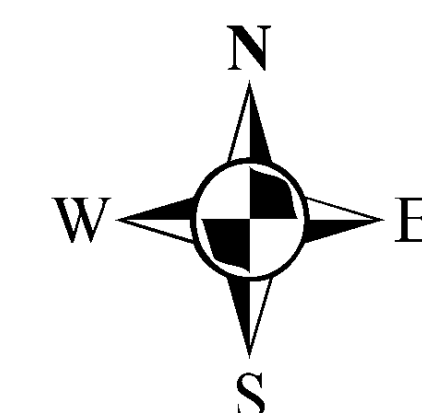




Dŵr Cymru
Welsh Water

Hafod Road, Johnstown Wrexham Flintshire
LL14 6ET



LEGEND(Representative of most common features)

Waste network:			
●	Foul chamber	—	Outfall
○	Surface water chamber	—	Lamp hole
○	Combined chamber	—	Storm Overflow
—	Combined sewer overflow	—	Rising main
—	Special purpose chamber	—	Gravity sewer
—	Treatment works	—	Private sewer
—	Pumping station	—	Private sewer subject to Sect. 124 adaptation agreement
—	Private sewer subject to Sect. 124 adaptation agreement	—	Private Sewer Transfer
—	Private Sewer Transfer	—	Lateral Drain
—	Lateral Drain	—	Inspection Chamber

NB: Sewer symbol colour indicates the type.
RED - Combined
GREEN - Surface Water
BROWN - Foul
Purple - Former S24 sewers (for indicative purposes only)

Notes:

Whilst every reasonable effort has been taken to correctly record the pipe material of DCWW assets, there is a possibility that in some cases, pipe material (other than Asbestos Cement or Pitch Fibre (PF)) may be found to be asbestos cement (AC) or Pitch Fibre (PF). It is therefore advisable that the possible presence of AC or PF pipes be anticipated and considered as part of any risk assessment prior to excavation

Dŵr Cymru Cyllyngdy (the Company) gives this information as to the position of its underground apparatus by way of general guidance only and on the basis of the best information available and to the best of its knowledge and belief. The accuracy of the information is not guaranteed. The user of this information is responsible for its use. The information is not to be used for any purpose other than that for which it is provided. The information is not to be used for any purpose other than that for which it is provided. The information is not to be used for any purpose other than that for which it is provided.

Service pipes are not generally shown but their presence should be anticipated.

EXACT LOCATIONS OF ALL APPARATUS TO BE DETERMINED ON SITE.

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Map Ref: 331002,346116
Map scale: 1:1000
Printed by: Zara Howells
Printed on: 23 Oct 2023

Appendix 4: Drainage Strategy

Lees Roxburgh Drg. No. 6997/01-05

IF IN DOUBT - ASK

Notes

This drawing is to be read in conjunction with the construction (Design and Management) regulations 2015.
To be read in conjunction with Lees Roxburgh drawing series 6697.

Drainage:

Scheme based on JPB Flood Risk Assessment ref: **MB616-65-AC/JHB RevA/** 10th June 2013 and supplemented by Weetwood Services Aberderyn modelling study ref: 2585 19th June 2014.

Surface Water

Design based on the following Criteria:

Climate Change - 30%
Winter Cv - 0.84
Summer Cv - 0.75
Runoff - 281.5 l/s

Residential Area

Surface water to north of to drain to Aberderyn via attenuation basin. Attenuation volumes up to and including 1:100yr+30% Climate Change event to be contained in online piped network and basin. Flows to be restricted by hydrobrake.

Commercial Area

To drain to Aberderyn via online piped network. Attenuation volumes up to and including 1:100yr+30% Climate Change event contained in online piped network prior to outfall to Aberderyn. Flows controlled by hydrobrake.

Foul

Residential Area

90 plots to drain by gravity to northern existing foul network, remainder of residential to be pumped to connection manhole F30 at head of gravity system. Emergency storage to be provided within wet well and offline storage (subject to pump station design) Pump Station location TBC. Section of existing F44-F45 to be upsized to 450mmØ as noted in accordance with Welsh Water Hydraulic assessment ref 085 - N119 Hafod Road and Bangor Road 00675 Report 28th November 2017.

Commercial Area

To drain to existing network within Bangor Road.

Notes

All drainage to be designed to Sewers for Adoption 7th Edition.

All existing proposed drainage connection points to be surveyed.

Culvert crossing for Road 1 subject to detailed design.

Gas main to have min 36m easement.

This design is subject to ongoing detailed design development and comment by all adopting authorities. Additional information and comments to be reviewed and incorporated into design as required.

KEY

EXISTING FOUL SEWER

PROPOSED SURFACE WATER SEWER

PROPOSED FOUL WATER SEWER

FOUL RISING MAIN (MINIMUM 1.2m COVER)

PROPOSED EASEMENT

ABERDERFYN

WEETWOOD FLOOD MAPPING

0.1% FLUVIAL FLOOD OUTLINE

PROPOSED SCENARIO

PROPOSED FINISHED FLOOR LEVEL

ATTENUATION BASIN

1:3 SIDE SLOPES

EXCEEDANCE ROUTE EVENTS

EXCEEDING 1:100YR +30%CC

GAS MAIN

GAS MAIN EASEMENT

NOTES

ALLOW FOR GULLIES AT 20M INTERVALS. DOUBLE GULLIES TO

BE LOCATED AT ROAD LOW POINTS. DRAGOUTS AS REQUIRED.

Rev	Revision	By	Date



Hafod Road
Johnstown

Drainage Strategy

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Job No.	Drawing No.	Revision.
6697	01-05	-
Scale 1:1000@A1	Date November 2023	
Drawn By	Designed By	Checked By
CB	CB	