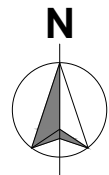
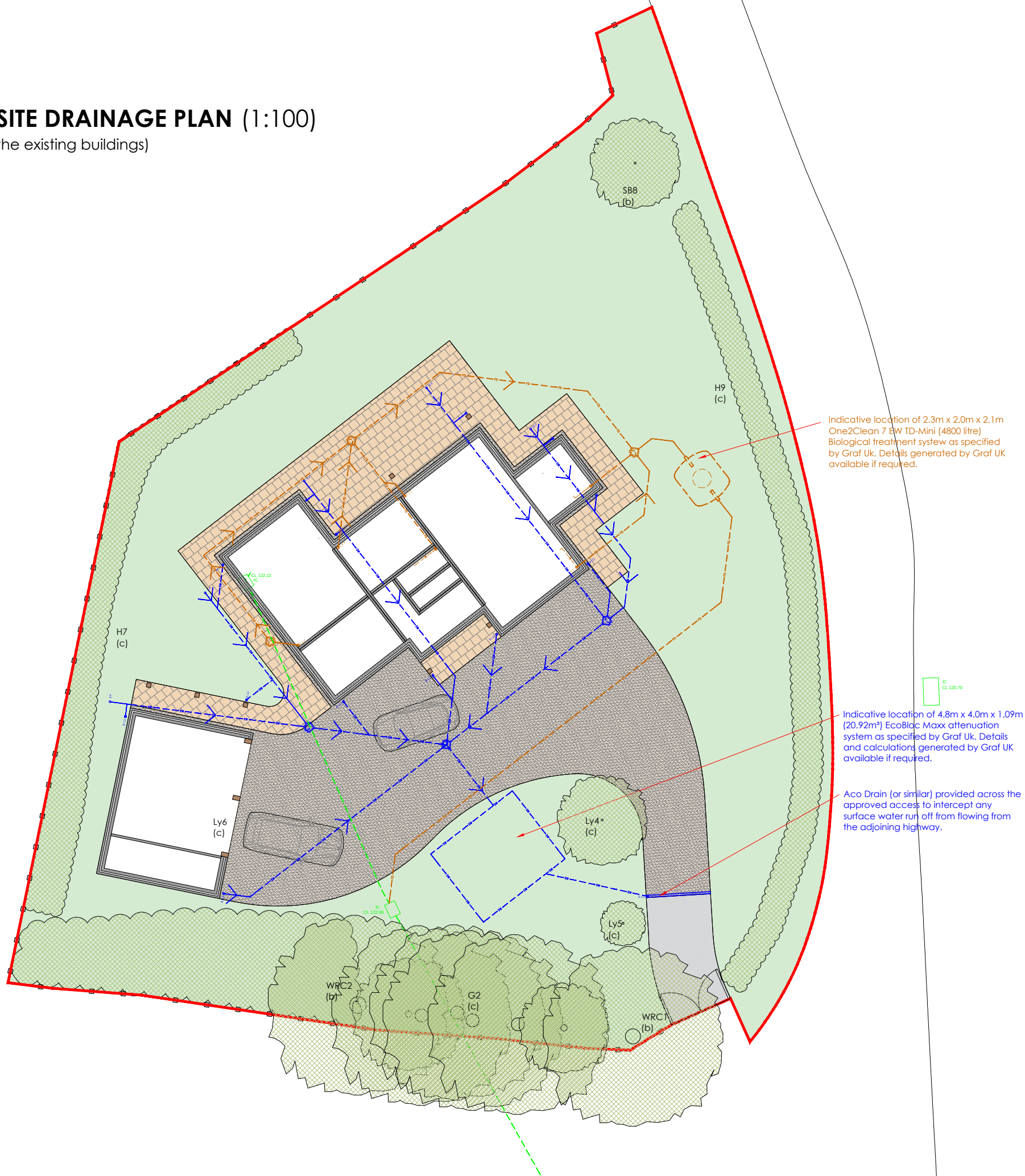


Appendix E – Drainage plans and data sheets as provided by Graf UK.

PROPOSED SITE DRAINAGE PLAN (1:100)

(redline indicates the existing buildings)



Note:

All dimensions must be checked on site and not scaled from this drawing.

Drawings and designs are subject to Engineer's comments

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REVISION:			
A	AMENDED PROPOSED SITE PLAN		2020-09-17
PLANNING			
PROJECT NAME:			
2A LLWYN-Y-CIL, CHIRK, WREXHAM			
CLIENT:			
MR & MRS A. ROGERS			
DRAWING TITLE:			
PROPOSED DRAINAGE PLAN			
DRAWING SCALE(S):			
1:100 @ A1			
DRAWING No:			
AR-PL-001.7			
 Benchmark Design Build Ltd SUITE 5, STARGATE BUSINESS CENTRE, FARADAY DRIVE, BRIDGNORTH, SHROPSHIRE, WV15 5BA T: 0800 060 7920 01746 762 222 0114 261 1150 W: WWW.BENCHMARKDESIGN.CO.UK E: INFO@BENCHMARKDESIGN.CO.UK			
DATE:	DRAWN BY:	CHECKED BY:	REVISION:
MAR. 2020	K.H	M.T	A



Otto Graf GmbH, Carl-Zeiss-Str. 2-6, Germany

2014

EN 12566-3:2013-09

Packaged domestic wastewater treatment plant
for treatment of domestic wastewater

SBR-treatment one2clean for 3-18 inhabitants

Material: Polypropylene (PP)

Effectiveness of treatment

Treatment efficiency ratios (at tested organis daily load BOD5=0,48 kg/d)	COD: 96,2% BOD5: 98,6% SS: 98,6%
Ammonia nitrogen	NH4-N: 99,0%
Total nitrogen	Ntot: 79,1%

Treatment capacity (nominal designation)

Nominal organic daily load (BOD5)	0,06 kg/d*PE
Nominal hydraulic daily flow (QN)	0,15 m3/d*PE

Watertightness

(water test)

passed

Crushing resistance

(pit test)

passed

Durability

passed

Reaction to fire

Class E

Release of dangerous substances

NPD

Valid for one2clean plants build in Carat S underground tanks

03/2014



Project: 2A Llwyn-Y-Cil Wrexham for LABC

Ref: DB_30/06_Rev. 1 first designed 30/06/2021

Designer: DB

Company: Graf UK Limited
 Regen House, Beaumont Road, Banbury, Oxon, OX16 1RH
 Tel: 01608 661500
 e-mail: info@grafuk.co.uk web site: www.grafuk.co.uk

Catchment Details:

Buildings	207.1	m ² x 100 %
Dense surfacing	89.7	m ² x 100 %
Effective Area	296.8	m ²

Storage Details:

Product	EcoBloc Maxx
Length	6 units = 4.8 m
Width	5 units = 4 m
Depth	3 units = 1.09 m
Volume Ratio	95.06667 %

Rainfall Details - FSR Method:

Return Period	100 years
Climate Change Factor	40 %
r value	0.34
M5-60	19 mm

Outflow Details:

Infiltration rate	0.1333 m/hr
Infiltration by BRE method	

Duration	Intensity mm	mm/h	Required storage(m ³)
30 min	29.8	83.4	11.730
45 min	34.7	64.8	13.467
60 min	38.4	53.8	14.683
2 hours	47.9	33.5	17.328
6 hours	63.7	14.9	18.816
24 hours	88.6	5.2	6.133

Results:

Outcome	Pass
Critical Storm Duration	4.97 hrs
Critical Rainfall Rate	17.1 mm/h
Hmax	1.036 m
Time to half empty	7.4 hrs
Volume Required	18.911 m ³

Tank Operation:

