Our Ref: J-3286 11th December 2023



TOLIMAN DEVELOPMENTS Golden Meadow Gulval Penzance Cornwall TR18 3bd

RE: Proposed Marquee at Penzance Cricket Club, Brian Laity Way, Penzance, TR18 2SU

Critical Drainage Area Flood Risk Assessment

Introduction

Toliman Developments are proposing to construct a new marquee at Penzance Cricket Club.

As part of the planning process, it has become apparent that the site is located in the Penzance Critical Drainage Area (CDA). As such, further consideration is required for the disposal of surface water from the site post development.

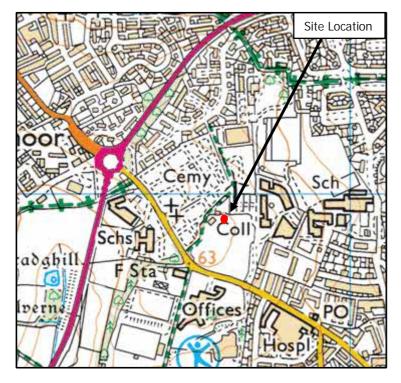
An initial inspection of the Environment Agency indicative flood map shows that the site is located within flood Zone 1 (low risk). Paragraph 167 (footnote 55) of the National Planning Policy Framework (NPPF) 2022 states that a Flood Risk Assessment (FRA) is required where a development is located within a Critical Drainage Area. To address this requirement, Engineering and Development Solutions have been commissioned to develop an FRA and associated Sustainable Drainage System (SuDS) for the proposed development.

This report comprises the FRA for the proposed development, in line with the National Planning Policy Framework (NPPF), Planning Practice Guidance (PPG), Drainage Guidance for Cornwall (DGfC), and Environment Agency (EA) Critical Drainage Area (CDA) guidance.

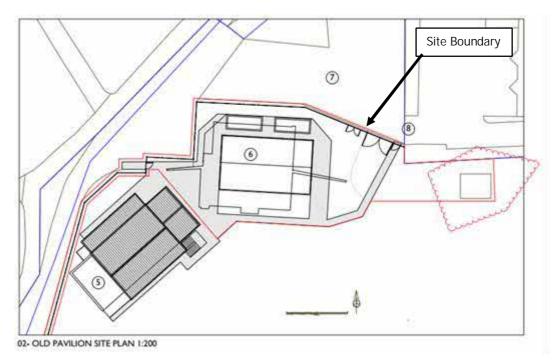
Site Description

As shown in Figures 1 & 2 below, the site is located in the town of Penzance. The site is accessed off Nancealverne Road which can be found adjacent to the southern boundary. Penzance town centre is situated approximately 750m away to the southeast of the site. Penwith college can be found adjacent to the Northen boundary of the site. The Ordnance Survey Grid Reference of the site is SW 46669 30944.













Existing Site Use

The development area consists of an old pavilion, which includes the cricket club storeroom, groundman's apartment and terraced seating area,

Proposed Site Use

The development proposal is to construct a new marquee, and two storage containers acting as toilets.

Flood Risks

The EA indicative flood map (Figure 3, below) confirms that the site is located within Flood Zone 1. Additionally, the Cornwall Strategic Flood Risk Assessment (SFRA) shows that the site is located within the Penzance Critical Drainage Area (CDA). This means that the surface water drainage for any new development on site requires more detailed consideration.

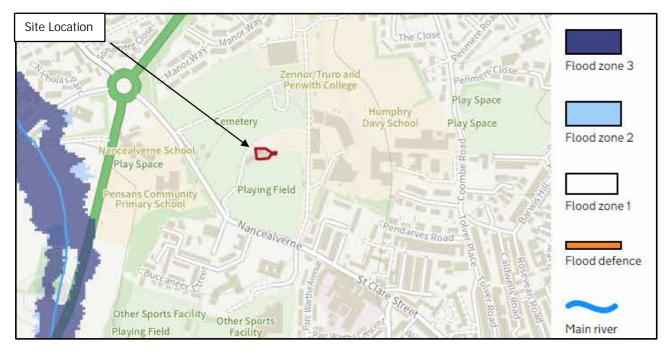


Figure 3 EA Flood Map for Planning (Rivers & Sea) Extract



Flood Risks

Groundwater Flooding

Groundwater flooding is linked to the ability of the ground to hold water. It is considered that groundwater is not an issue on this site, furthermore the Cornwall SFRA states:

"Due to its geology Cornwall has only minor aquifers and generally does not experience much groundwater type flooding".

In addition to this a trail pit was dug to 2m and found no evidence of groundwater. In consideration of the information presented above, the risk of groundwater flooding on site is not considered further in this report.

Tidal Flooding

The site has a minimum elevation of approximately 64m AOD and lies approximately 1km from the coast away from areas of tidal influence to the east of the site. Therefore, the risk of tidal flooding on site is discounted from further consideration in this report.

Fluvial Flooding

The site is elevated well above the Heamoor Stream which can be found approximately 410m away from the site to the west. The river is conveyed in a southerly direction away from the site. As such it is concluded by simple inspection that fluvial flooding poses no significant risk to the site. This is confirmed when viewing the EA fluvial and tidal flood map for the site area, Figure 3, above, which places the site in Flood Zone 1.

In consideration of the information presented above, the proposed built development within the site is assessed as being at low risk of fluvial flooding so this source of flooding is not considered further in this report.

Overland/Surface Water Flow

The EA surface water flood map for the site area, Figure 4, below suggests that the majority of the site is at very low risk of surface water flooding during an extreme storm.

The site is situated at the top of a catchment within a residential area which is served by a network of highways. Residential properties and highways in proximity to the site will have associated surface water drainage networks.

If an extreme surface water flood event were to occur, overland flows generated upstream of the site would be intercepted by the playing field, evaporate or percolate into the ground before reaching the site







Flooding Because of Development

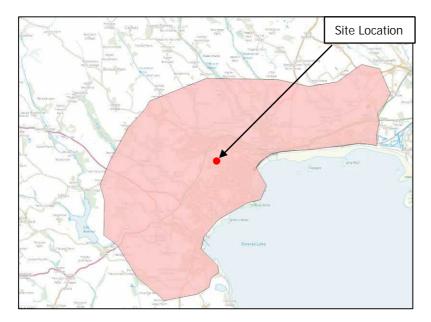
In general terms, development and paving of permeable areas have the potential to increase flood risks to properties and interests down slope of proposed development to potential increased surface water runoff. A well-designed and constructed surface water drainage system is key to mitigating surface water flood risks post development.

In this case, the site is already finished with a hard standing so there will be no net increase in runoff, however, there is an opportunity of betterment for the site in terms of reducing runoff rates. By designing surface water drainage infrastructure for the proposed development in accordance with the advice reproduced below, flood risks to properties and interests down slope will not increase post development.



Cornwall Council, DEFRA and Environment Agency Advice

As shown in Figure 5, below, the proposed development site is situated within the Penzance Critical Drainage Area (CDA).





Advice on the drainage of developments located within the Penzance Critical Drainage Area is provided within catchment specific EA advice.

The minimum drainage standards for the catchment are:

All new developments will have to play their part in reducing current rainfall runoff rates. This requirement also applies to brownfield sites that will have to match the same standards. The surface water drainage hierarchy should be followed by using infiltration as far as is practicable. Further guidance on such systems can be found in the CIRIA SuDS Manual and in Lead Local Flood Authority guidance.

All off-site surface water discharges from developments should mimic greenfield performance up to a maximum 1 in 10-year discharge rate. On site all surface water should be safely managed up to the 1 in 100 plus climate change conditions. This will require additional water storage areas to be created thereby contributing to a reduction in flooding downstream.



Drainage Design - Infiltration System

As per the guidance outlined above, the preferable drainage solution for the site would be to drain all surface water runoff from the proposed development to a ground infiltration based soakaway system designed to a minimum 100-year return period storm plus a climate change allowance.

The Building Regulations Part H places several restrictions on the siting of soakaways which should be complied with. This includes that soakaways should not be sited within 5m of any building or road. They should also be sufficiently far from other soakaways and drainage fields so that the overall soakage capacity of the ground is not exceeded, or the effectiveness of the proposed soakaway units is impaired.

Percolation testing in accordance with BRE Digest 365 was undertaken to ascertain infiltration rates, and the following infiltration rates were recorded. The infiltration result (0.076m/hr) has been used in the preliminary calculation of sizing the infiltration system.

Trial Pit	Infiltration Rate (m/s)	Infiltration Rate (m/hr)
TP1	2.12E-05	0.076

Figure 5 Penzance Critical Drainage Area (CDA Hatched pink)

As such a soakaway system has been sized to serve the impermeable area of each unit. The suggested dimensions of the soakaway system is 4.0m (width) x 6m (length) x 1.2m (depth), based on Wavin Aquacell Core-R modular infiltration units with a 95% void ratio.

The soakaway system is based on the worst-case design storm (100 year) with rainfall intensities increased by 50% to allow for the effects of climate change over the lifetime of the development. Calculations can be found in Annex A.

The proposed development layout (Drawing 3001) included in Annex B shows the layout of the proposed soakaway system on site. This includes maintaining a 5m clearance from any building as required by Building Regulations Part H.

Exceedance Events

During any rainfall event in excess of the design storm described above, or should pipework or gullies become blocked, the soakaway system has potential to become surcharged. It is anticipated that surcharging of the system would result in exceedance flows flowing overland to run in a northerly direction

Due to the storage provided in the proposed soakaway system the rate / volume of surface water runoff from the site in an exceedance event would be less than would occur in the pre-development scenario.



Surface Water Drainage System Operation & Maintenance Manual

Management and maintenance responsibility for the surface water drainage system will fall to the site owner. Maintenance will include regular (recommended to be at six monthly intervals) inspection of the upstream silt trap serving the systems, with removal and disposal of any silt or debris (e.g. leaves) that has accumulated in an appropriate manner.

SOAKAWAYS		
Maintenance Schedule	Required Action	Typical Frequency
	Inspect for sediment and debris in upstream silt traps and floor of inspection tube or chamber	Annually
Regular maintenance	Cleaning of gutters and any filters on downpipes	Annually (or as required based on inspections)
	Trimming any roots that may be causing blockages	Annually (or as required)
Occasional maintenance	Remove sediment and debris from upstream silt traps and floor of inspection tube or chamber	As required, based on inspections
Remedial actions	Reconstruct soakaway and/or replace or clean units if performance deteriorates or failure occurs	As required
	Replacement of clogged geotextile (will required reconstruction of soakaway)	As required
Monitoring	Inspect silt traps and note rate of sediment accumulation Check soakaway to ensure emptying is	Monthly in the first year then annually Annually
	occurring	/ underly

Table 2 Attenuation System: Maintenance Recommendations

Residual Risks After Development

The surface water drainage system proposed in this report has been conceptually designed for the volume of surface water runoff resulting from the proposed development. Thus, any unauthorized future connections into the site surface water drainage network on site could potentially overload the system. Any future development on site, beyond the current proposal, should be suitably planned and considered.



Conclusions

- The development site at Penzance Cricket Club has been found to lie within Flood Zone 1.
- The site is located within the Penzance Critical Drainage Area (CDA), so special consideration has been given to surface water drainage of the site post development. The proposed surface water drainage infrastructure has been designed in accordance with guidance outlined in Drainage Guidance for Cornwall (DGfC), and more recent guidance from Cornwall Council and the Environment Agency.
- As the site is located within the Penzance Critical Drainage area it is recommended that infiltration techniques are the preferred option and should be used as far as is practicable. A dedicated below ground soakaway of dimensions 4m (width) x 6m (length) x 1.2m (depth) will dispose of the surface water.
- The conceptual surface water drainage layout is shown on Drawing **3001A** included in **Annex B**. This will control the surface water runoff on-site and ensure it meets the drainage guidance for this area.
- The surface water drainage system will remain in private ownership and the property owner will be responsible for maintenance of the surface water drainage system on site. Maintenance will comprise periodic inspection of chambers and removal of silt and debris as necessary.
- Provided the recommendations outlined in this report are adopted in the development proposal, then there is the capacity to manage the surface water runoff from the development onsite. With regard to the criteria outlined in the NPPF, PPG, DGfC, and EA CDA guidance, the development is appropriate on this site from a flood risk perspective.

Yours faithfully For and on behalf of EDS

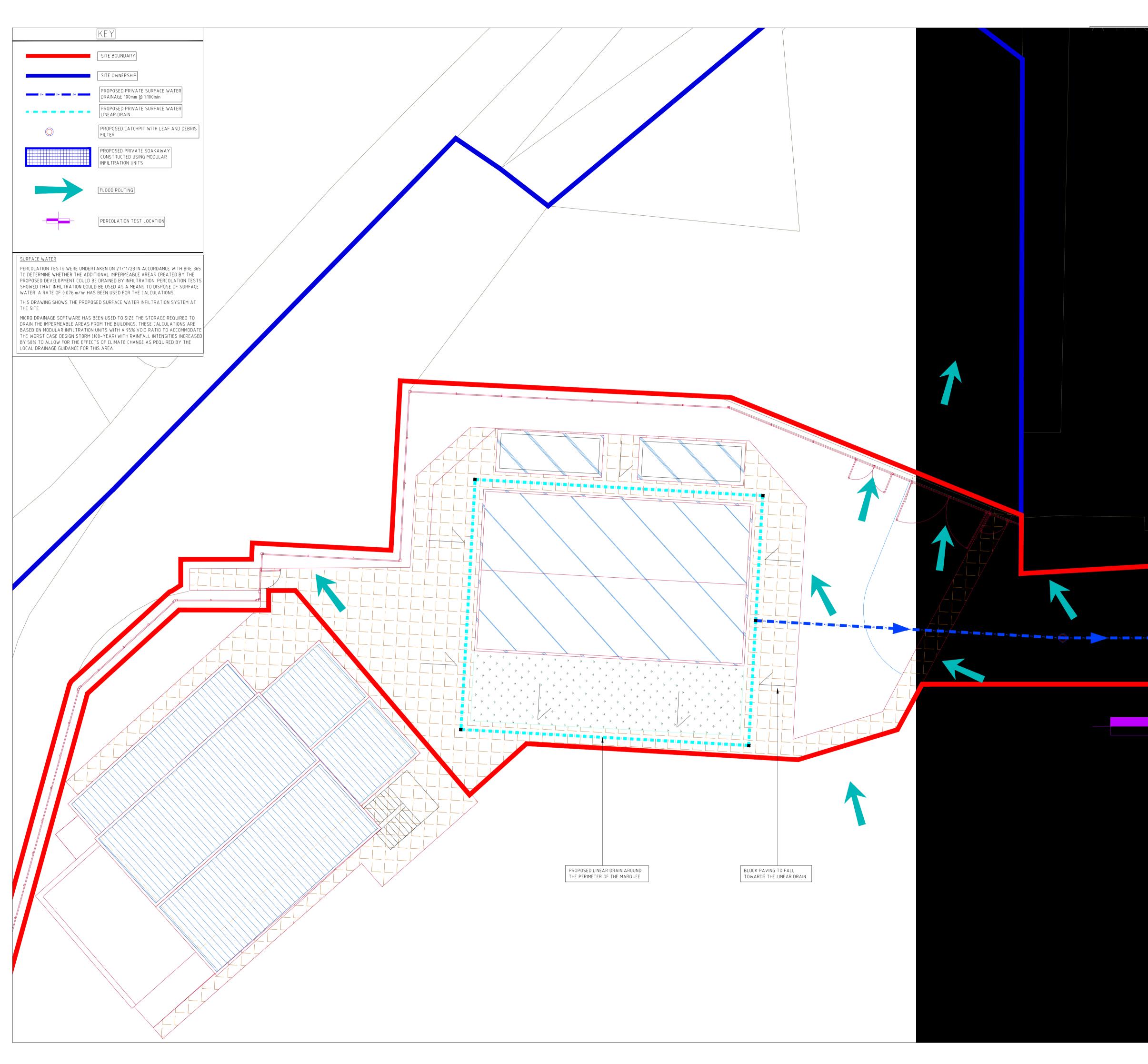


Joshua Munyard Project Engineer

Enc. Annex A Calculations Annex B Drainage Layout



ANNEX A Calculations



	Copyright – This drawing and any ancillary drawings or data are copyright of EDS and may not be used, copied or amended for any
	purpose whatsoever without written approval.
	 This drawing is copyright. Refer to details above. This drawing is only to be used for the purposes described in the status box below. Work to figured dimensions only, do not scale for
	 construction purposes. 3. This drawing is to be read in conjunction with all other drawings, details and specifications pertaining to the work described. It should only be used for the purpose marked in the status box below, and shall not be used for construction
	 unless clearly marked CONSTRUCTION. 4. Materials and workmanship shall comply to the appropriate British Standards and Codes of Practice unless otherwise stated.
	5. The activities required to construct the work, shown on drawings clearly marked CONSTRUCTION, may be subject to the provisions of the Construction (Design & Management) Regulations 2015. The Contractor and Client must ensure that they are adequately conversant with these regulations and that the appropriate procedures required under the regulations are observed at all times.
	6. The contractor is responsible for locating services prior to excavation. Any services shown on the drawing should be considered 'indicative' only. Where no services are shown on the drawing it does not necessarily mean there are no services present, only that a services search has not been undertaken. Where in doubt refer to HSE booklet "avoiding danger from underground services"
	7. Design Risk Assessment
	A risk assessment relating to potential hazards associated with the works described within this drawing, in so far as they have been designed by EDS Ltd, has been undertaken. Risks identified have been eliminated by design wherever practicable. The status with regard to residual risks is as follows:
	The work is of low complexity with low level of risk, it is considered that there are no significant residual risks that would not be readily foreseeable by a competent contractor, observing good working practices.
	Designer – EDS Drawing revision – A Date – 13:12:23
	13:12:23 JM TS A PRELIMINARY ISSUE
	DATE. DRWN. CHKD. REV. NOTES.
	PROJECT MANAGER:- TIM SULLIVAN PROJECT ENGINEER:- JOSHUA MUNYARD
	DRAWN DATE:- DEC 2023
	SCALE & SHEET SIZE:- 1:100 @ A1
	PRELIMINARY
	EDŜ
	Engineering & Development Solutions
PROPOSED SOAKAWAY COMPRISING	Flood Risk Assessment Highway Design
MODULAR INFILTRATION UNITS WITH THE DIMENSIONS OF: 6m (I) x 4.0m (w) x 1.2m (d)	SuDS and Surface Water Civil Engineering Foul and Sewage Treatment Statutory Approvals
WITH A TOTAL USABLE VOLUME OF 27.36m ³	EDS, Unit E4, Threemilestone Industrial Estate, Threemilestone, Truro, Cornwall TR4 9LD (01872) 306311 (Mob) 07973816457 Email: jan@eadsolutions.co.uk www.eadsolutions.co.uk
	<u>CLIENT</u> TOLIMAN DEVELOPMENTS
	PROJECT
	PROPOSED MARQUEE AT PENZANCE CRICKET CLUB
	DRAWING TITLE
	CONCEPTUAL SURFACE WATER DRAINAGE LAYOUT
	PROJECT No. REV.
	J-3252 3001 A



ANNEX B Drainage Layout

Engineering & Development Solutions	Job No.	Job Name	Prepared	Date
Unit E4 Truro Business Park, Threemilestone, Truro, TR4 9LD Tel 07973816457	J-3352	Penzance Cricket Club	EDS	13/12/2023

Pit Dimensions		
Depth (m)	Length (m)	Width (m)
2.00	2.00	0.50

Soakaway test - tabulated data

Time (hh:mm)	Depth to Water (m)	Elapsed Time (sec)	Water Depth (m)	% Effective	Volume (m ³)
10:15	1.00	0	1.00	100%	1.00
10:25	1.20	600	0.80	80%	0.80
10:35	1.25	1200	0.75	75%	0.75
10:45	1.35	1800	0.65	65%	0.65
10:55	1.40	2400	0.60	60%	0.60
11:05	1.50	3000	0.50	50%	0.50
11:15	1.55	3600	0.45	45%	0.45
11:25	1.60	4200	0.40	40%	0.40
11:35	1.70	4800	0.30	30%	0.30
11:45	1.78	5400	0.22	22%	0.22
11:55	1.85	6000	0.15	15%	0.15
12:05	1.93	6600	0.07	7%	0.07
12:15	1.98	7200	0.02	2%	0.02
12:25	2.00	7800	0.00	0%	0.00

Test Date:	27/11/2023
Trial Pit No.:	TP1
Test No.:	1

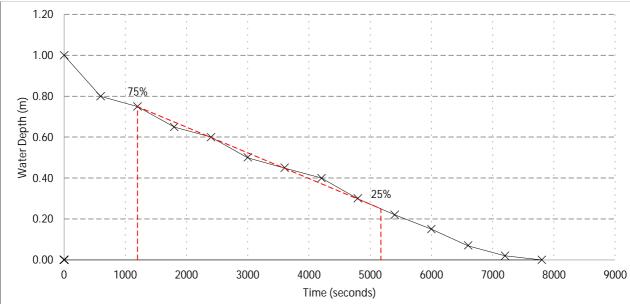
% Effective	Vol (m ³)	T (sec)
80%	0.80	600
75%	0.75	1200
75%	0.75	1200
30%	0.30	4800
22%	0.22	5400
25%	0.25	5175
75%-25%	0.50	3975



q

Where:

 $a_{p50\%}$: Internal surface area of pite up to 50% effective depth, including base area $t_{p75\cdot25}$: Time for water to dall from 75% to 25% effective depth $V_{p75\cdot25}$: Effective storage volume between 75% & 25% effective depth





Engineering & Development Solutions	Job No.	Job Name	Prepared	Date
Unit E4 Truro Business Park, Threemilestone, Truro, TR4 9LD Tel 07973816457	J-3352	Penzance Cricket Club	EDS	13/12/2023

Pit Dimensions		
Depth (m)	Length (m)	Width (m)
2.00	2.00	0.50

Soakaway test - tabulated data

Time (hh:mm)	Depth to Water (m)	Elapsed Time (sec)	Water Depth (m)	% Effective	Volume (m ³)
13:00	1.00	0	0.98	100%	0.98
13:15	1.10	900	0.88	90%	0.88
13:25	1.15	1500	0.83	85%	0.83
13:35	1.20	2100	0.78	80%	0.78
13:45	1.28	2700	0.70	71%	0.70
13:55	1.32	3300	0.66	67%	0.66
14:05	1.40	3900	0.58	59%	0.58
14:15	1.44	4500	0.54	55%	0.54
14:25	1.50	5100	0.48	49%	0.48
14:35	1.55	5700	0.43	44%	0.43
14:45	1.59	6300	0.39	40%	0.39
14:55	1.63	6900	0.35	36%	0.35
15:05	1.70	7500	0.28	29%	0.28
15:15	1.76	8100	0.22	22%	0.22
15:25	1.80	8700	0.18	18%	0.18
15:35	1.86	9300	0.12	12%	0.12
15:45	1.98	9900	0.00	0%	0.00

Test Date:	27/11/2023
Trial Pit No.:	TP1
Test No.:	2

% Effective	Vol (m ³)	T (sec)
80%	0.78	2100
71%	0.70	2700
75%	0.74	2438
29%	0.28	7500
22%	0.22	8100
25%	0.25	7850
75%-25%	0.49	5413

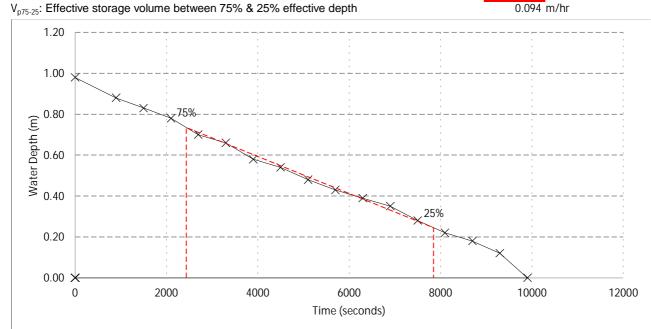


q

2.62E-05 m/sec

Where:

 $a_{p50\%}$: Internal surface area of pite up to 50% effective depth, including base area $t_{p75\cdot25}$: Time for water to dall from 75% to 25% effective depth $V_{p75\cdot25}$: Effective storage volume between 75% & 25% effective depth



Engineering & Development Solutions	Job No.	Job Name	Prepared	Date
Unit E4 Truro Business Park, Threemilestone, Truro, TR4 9LD Tel 07973816457	J-3352	Penzance Cricket Club	EDS	13/12/2023

Pit Dimensions		
Depth (m)	Length (m)	Width (m)
2.00	2.00	0.50

Soakaway test - tabulated data

Time (hh:mm)	Depth to Water (m)	Elapsed Time (sec)	Water Depth (m)	% Effective	Volume (m ³)
16:00	1.00	0	1.00	100%	1.00
16:15	1.10	900	0.90	90%	0.90
16:45	1.25	2700	0.75	75%	0.75
17:00	1.30	3600	0.70	70%	0.70
17:20	1.38	4800	0.62	62%	0.62
17:40	1.50	6000	0.50	50%	0.50
18:00	1.65	7200	0.35	35%	0.35
18:30	1.70	9000	0.30	30%	0.30
18:45	1.80	9900	0.20	20%	0.20
19:00	1.95	10800	0.05	5%	0.05
19:15	2.00	11700	0.00	0%	0.00

Test Date:	27/11/2023
Trial Pit No.:	TP1
Test No.:	3

% Effective	Vol (m ³)	T (sec)
90%	0.90	900
75%	0.75	2700
75%	0.75	2700
30%	0.30	9000
20%	0.20	9900
25%	0.25	9450
75%-25%	0.50	6750

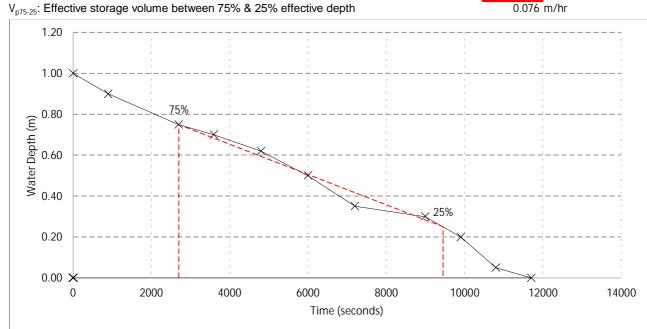


q

2.12E-05 m/sec

Where:

 $a_{p50\%}$: Internal surface area of pite up to 50% effective depth, including base area $t_{p75\cdot25}$: Time for water to dall from 75% to 25% effective depth $V_{p75\cdot25}$: Effective storage volume between 75% & 25% effective depth



Engineering and Development Sol	Page 1	
Unit E4	J-3252	
Threemilestone Industrial	Penzance Cricket Club	
Truro, TR4 9LD		Micro
Date 13/12/2023	Designed by JM	Drainage
File J-3252 Soakaway	Checked by	Diamaye
Innovyze	Source Control 2020.1.3	

Summary of Results for 100 year Return Period (+50%)

	Stor Even		Max Level (m)	Max Depth (m)	Max Infiltration (1/s)	Max Volume (m³)	Status
15	min	Summer	97.622	0.422	0.2	9.6	ОК
30	min	Summer	97.776	0.576	0.2	13.1	ΟK
60	min	Summer	97.951	0.751	0.3	17.1	ОК
120	min	Summer	98.066	0.866	0.3	19.7	ΟK
180	min	Summer	98.132	0.932	0.3	21.3	ОК
240	min	Summer	98.174	0.974	0.3	22.2	ΟK
360	min	Summer	98.217	1.017	0.3	23.2	ОК
480	min	Summer	98.228	1.028	0.3	23.4	ΟK
600	min	Summer	98.222	1.022	0.3	23.3	ОК
720	min	Summer	98.211	1.011	0.3	23.1	ΟK
960	min	Summer	98.182	0.982	0.3	22.4	ΟK
1440	min	Summer	98.119	0.919	0.3	20.9	ОК
2160	min	Summer	98.033	0.833	0.3	19.0	ОК
2880	min	Summer	97.963	0.763	0.3	17.4	O K
4320	min	Summer	97.847	0.647	0.3	14.8	ОК
5760	min	Summer	97.758	0.558	0.2	12.7	ОК
7200	min	Summer	97.692	0.492	0.2	11.2	O K
8640	min	Summer	97.641	0.441	0.2	10.0	ΟK
10080	min	Summer	97.600	0.400	0.2	9.1	O K
15	min	Winter	97.674	0.474	0.2	10.8	ΟK

Half Drain Time : 785 minutes.

	Storm Event		Flooded Volume (m³)	Time-Peak (mins)	
15	min Summer	163.567	0.0	19	
30	min Summer	112.548	0.0	34	
60	min Summer	74.562	0.0	64	
120	min Summer	44.452	0.0	122	
180	min Summer	32.894	0.0	182	
240	min Summer	26.553	0.0	242	
360	min Summer	19.583	0.0	362	
480	min Summer	15.712	0.0	480	
600	min Summer	13.201	0.0	560	
720	min Summer	11.425	0.0	612	
960	min Summer	9.048	0.0	738	
1440	min Summer	6.488	0.0	996	
2160	min Summer	4.642	0.0	1408	
2880	min Summer	3.667	0.0	1820	
4320	min Summer	2.645	0.0	2636	
5760	min Summer	2.118	0.0	3408	
7200	min Summer	1.808	0.0	4184	
8640	min Summer	1.603	0.0	4928	
10080	min Summer	1.458	0.0	5656	
15	min Winter	163.567	0.0	19	
	©1982-	2020 II	nnovyze	:	

Engineering and Development Solutions Ltd			
Unit E4	J-3252		
Threemilestone Industrial	Penzance Cricket Club		
Truro, TR4 9LD	Truro, TR4 9LD		
Date 13/12/2023	Designed by JM		
File J-3252 Soakaway	Checked by	Dialitage	
Innovyze	Source Control 2020.1.3		

<u>Summary of Resul</u>	ts for	100	year Return	Perio	od (+50%)
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (1/s)	Max Volume (m ³)	Status
30 min Winter			0.3		
60 min Winter 120 min Winter	98.177	0.977	0.3		ОК
180 min Winter 240 min Winter	98.305		0.3	25.2	
360 min Winter 480 min Winter	98.382	1.182	0.3	26.9	
600 min Winter 720 min Winter	98.370	1.170	0.3	26.7	ОК
960 min Winter 1440 min Winter	98.256	1.056	0.3	24.1	O K O K
2160 min Winter 2880 min Winter	98.037	0.837	0.3	19.1	OK OK
4320 min Winter 5760 min Winter 7200 min Winter	97.740	0.540	0.3 0.2 0.2	15.3 12.3 10.1	
8640 min Winter 10080 min Winter	97.570	0.370	0.2	10.1 8.4 7.1	

	Storm Event		Rain (mm/hr)		Time-Peak (mins)
30	min	Winter	112.548	0.0	33
60	min	Winter	74.562	0.0	62
120	min	Winter	44.452	0.0	120
180	min	Winter	32.894	0.0	180
240	min	Winter	26.553	0.0	238
360	min	Winter	19.583	0.0	352
480	min	Winter	15.712	0.0	464
600	min	Winter	13.201	0.0	572
720	min	Winter	11.425	0.0	676
960	min	Winter	9.048	0.0	768
1440	min	Winter	6.488	0.0	1070
2160	min	Winter	4.642	0.0	1532
2880	min	Winter	3.667	0.0	1964
4320	min	Winter	2.645	0.0	2812
5760	min	Winter	2.118	0.0	3632
7200	min	Winter	1.808	0.0	4400
8640	min	Winter	1.603	0.0	5184
10080	min	Winter	1.458	0.0	5944

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Unit E4	J-3252								
Threemilestone Industrial	Penzance Cricket Club								
Truro, TR4 9LD		Micro							
Date 13/12/2023	Designed by JM								
File J-3252 Soakaway	Checked by JM Drainage					Checked by			
Innovyze	Source Control 2020.1.3								
R	ainfall Details								
Rainfall M	- 4-1	FEH							
Return Period (ye		100							
FEH Rainfall Ver		2013							
	tion GB 146656 30917 SW 46656								
Data	Туре	Point							
Summer St	orms	Yes							
Winter St	orms	Yes							
Cv (Sum		0.750							
Cv (Win		0.840							
Shortest Storm (m		15							
Longest Storm (m Climate Chan		10080 +50							
		+50							
<u>T.</u>	<u>ime Area Diagram</u>								
Тс	otal Area (ha) 0.032								
	Time (mins) Area From: To: (ha)								
	0 4 0.032								

Engineering and Development Solu	Page 4	
Unit E4	J-3252	
Threemilestone Industrial	Penzance Cricket Club	
Truro, TR4 9LD		Micro
Date 13/12/2023	Designed by JM	Desinado
File J-3252 Soakaway	Checked by	Dialitage
Innovyze	Source Control 2020.1.3	

Model Details

Storage is Online Cover Level (m) 100.000

<u>Cellular Storage Structure</u>

Invert Level (m) 97.200 Safety Factor 3.0 Infiltration Coefficient Base (m/hr) 0.07600 Porosity 0.95 Infiltration Coefficient Side (m/hr) 0.07600

Depth (m) Area (m²) Inf. Area (m²) Depth (m) Area (m²) Inf. Area (m²)

0.000	24.0	24.0	1.201	0.0	48.0
1.200	24.0	48.0			