FLOOD RISK ASSESSMENT

CONSTRUCTION OF NEW SYNTHETIC BOWLING GREEN

At

Sean Walsh Memorial Park

For

South Dublin County Council

Sports Labs Ltd
1 Adam Square
Brucefield Industry Park
Livingston
EH54 9DE

Contract Number: 3463

Issued by: Sports Labs on behalf of South Dublin County Council

Development: Construction of a new synthetic bowling green with fencing.

Date of Issue: October 2025

Version	Issue Date	Details
Original (Planning)	October 2025	-

Approvals		Signatures
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1.1 Site Overview

Figure 1 - Site Overview

1.2 Site Address

Sean Walsh Park
Whitestown Way
Tallaght
Dublin

1.3 Applicant Details

South Dublin Council
County Hall
Tallaght
Dublin 24
D24 A3XC

Project supervisor: Nicholas Collins – ncollins@SDUBLINCOCO.ie

1.4 Agent Details

Sports Labs Ltd
1 Adam Square
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Livingston
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EH54 9DE

Consultancy Operations Manager: Graeme Stewart - graeme@sportslabs.co.uk
Consultancy Manager: David Dickinson - david@sportslabs.co.uk

2 INTRODUCTION

2.1 Sports Labs Ltd has been appointed on behalf of South Dublin County Council (SDCC) to develop an application for planning permission and for a proposed new synthetic bowling green, on the grounds of Sean Walsh Park, Tallaght, Dublin.

2.2 In order to assist in the approval of planning permission and the development of the proposed project, this document shall outline the SUDS drainage system put forward for the new bowling green and carry out a Flood Risk Assessment.

2.3 This document is carried out in accordance with the guidance within the National Planning Framework (NPF).

3 OVERVIEW OF PROPOSED REVELOPMENT

3.1 Existing Site Layout Plan

3.1.1 Refer to drawing 3463-SL-DR-100-GA-R00. This indicates the proposed location of the new synthetic bowling green within the context of the existing facilities on the grounds of Sean Walsh Park, Tallaght.

3.2 Existing Ground Conditions

3.2.1 The existing levels on site are heavily sloped, which will promote increased runoff rates. It is believed that the upper soils have been bunded following development elsewhere in Sean Walsh Park.

3.2.2 A site-specific ground investigation has been carried out, but at the time of this report the finalised Ground Investigation has not been received from Causeway Geotech the supporting specialist. Pre-report borehole log information with infiltration results have been communicated to allow this report to be produced. In support of the communicated information, Sports Labs were recently involved in the construction of a new 3G synthetic bowling green to the north of proposed location for the bowling green. In general, ground conditions encountered a covering of Topsoil to 155mm, over Made Ground (Clay) to 843mm bgl, and firm to very stiff silty clay to completion of the trial pits at 2.5m.

3.2.3 Infiltration testing was carried out in a pit sized at L 1.2m x W 0.32m x D2.2m. The test was allowed to run for 210 minutes, with the water level dropping by 105mm, giving an infiltration rate of $8.3x10^{-6}$ m/s. The water level did not reach 75% full meaning that the soils are effectively impermeable for the purposes of the drainage design.

4 FLOOD RISK ASSESSMENT

Stage 1 – Flood Risk Identification

4.1 Overview

From reviewing the site location and surrounding areas an initial assessment can be made on the different types of flooding:

4.1.1 Coastal – Due to the proposed development area being west of Dublin and over 10km from the cost, tidal flooding can be considered extremely unlikely.

4.1.2 Fluvial – The site sits adjacent to the Whitestown Stream. While the level of the site is significantly higher than the surface of the stream and overall the risk would be considered very unlikely, the proximity means that the potential for fluvial flooding must be considered.

4.1.3 Groundwater – A site specific ground investigation is required to confirm the typical groundwater levels in the area. From recent work in Sean Walsh Park we note that groundwater is typically greater than 2.5m from the surface level in the greater area. The risk from groundwater flooding can therefore be considered very low.

4.1.4 Pluvial – A site specific ground investigation is again required to confirm the infiltration rates of the development area. However, the above noted ground investigation from elsewhere in Sean Walsh Park found the soils to be effectively impermeable. For this reason, the risk of pluvial flooding must be considered.

4.2 Historical Flooding

4.2.1 From reviewing the available data on floodinfo.ie, the proposed site has not been subject to historical flooding, and there are no noted recurring flood events in the immediate aera.

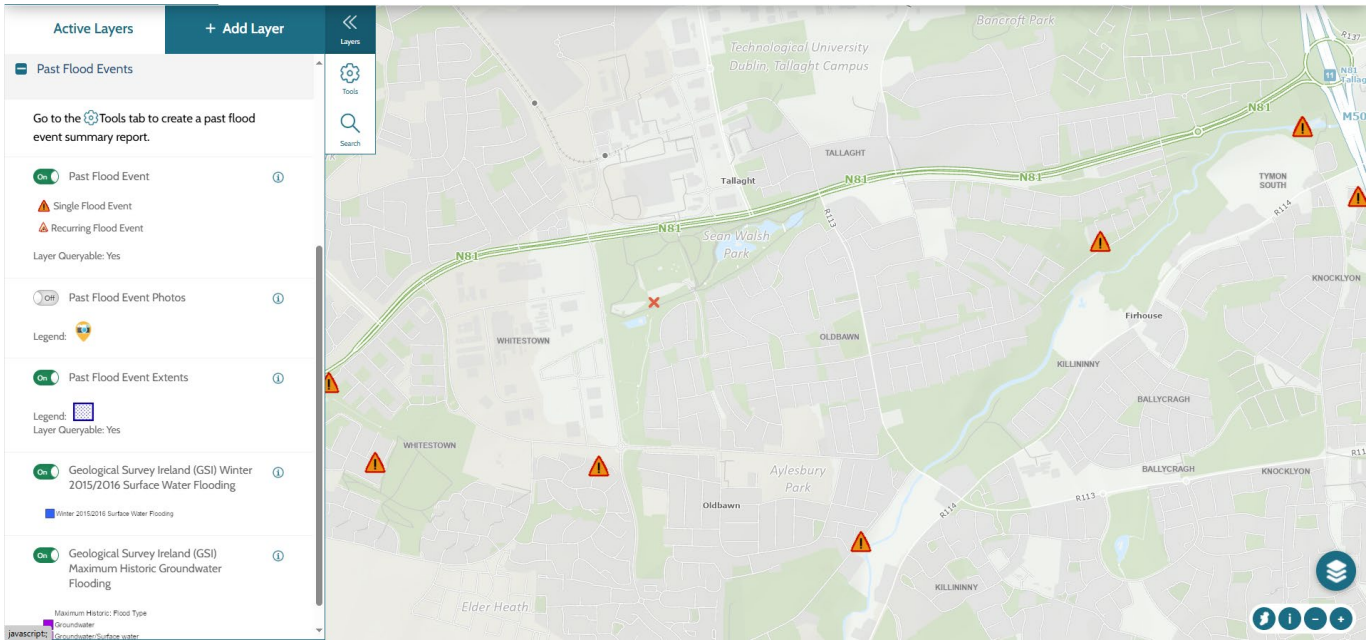


Figure 2 - Historical Flooding (floodinfo.ie, October 2025)

4.3 Coastal Flooding

4.3.1 Coastal flooding occurs when sea levels along the coast or in estuaries exceed neighbouring land levels or overcome coastal defences where these exist. A review of the CFRAM Coastal Flood Extents Mapping was carried out and indicates no coastal flooding at the subject site.

4.3.2 As shown below, there is no risk of coastal flooding at the proposed site.

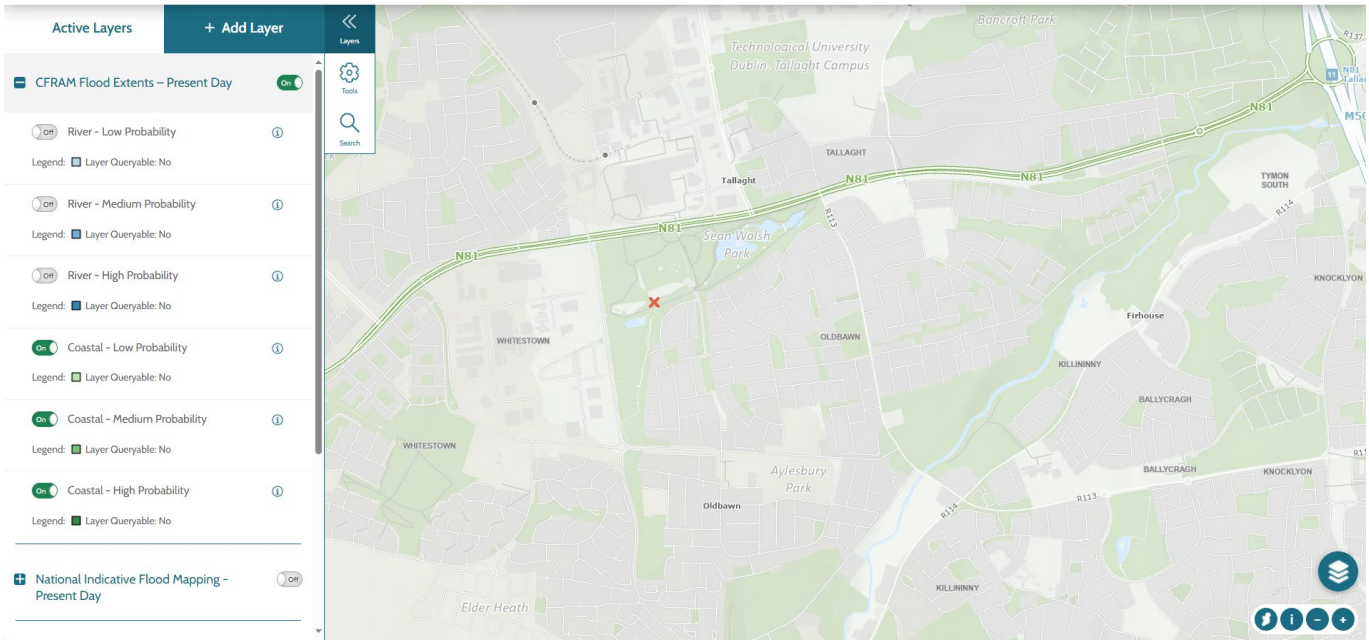


Figure 3 - Coastal Flooding (floodinfo.ie, October 2025)

4.4 Fluvial Flooding

4.4.1 Fluvial flooding occurs when rivers and streams break their banks and water flows out onto the adjacent low-lying areas.

4.4.2 Figure 4 below notes that there is no recorded risk of fluvial flooding within the development area, however it is noted in close proximity and this must be kept in consideration during the design stage.

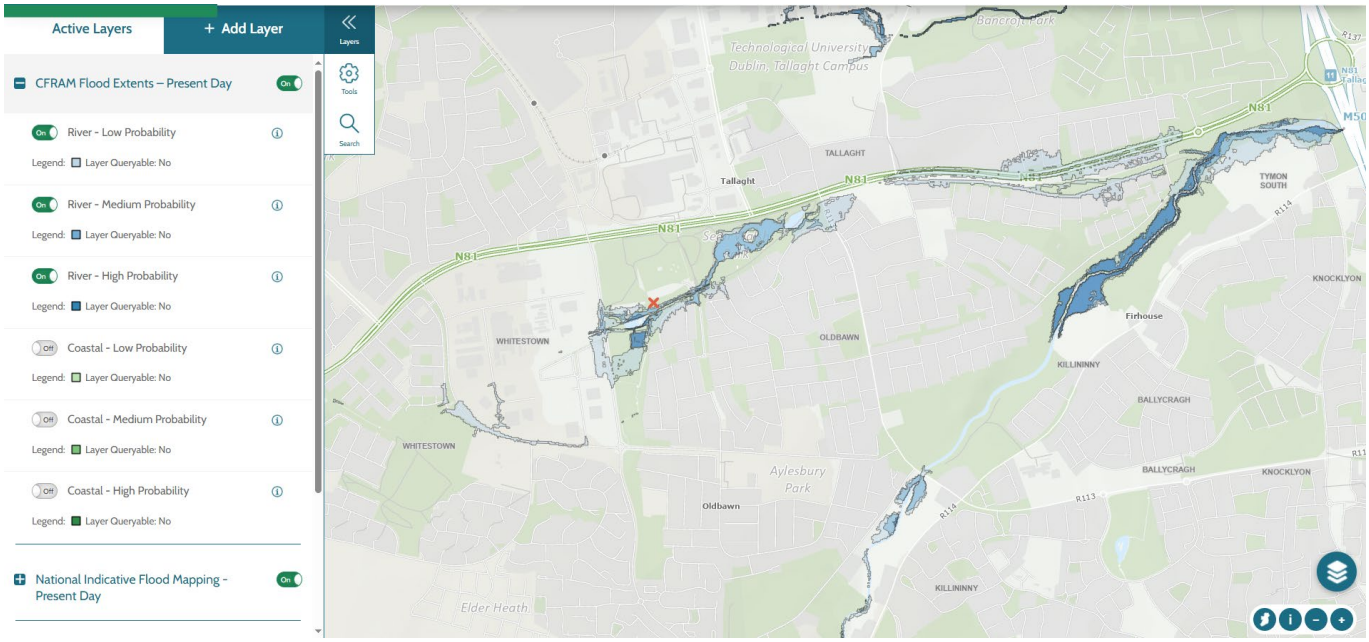


Figure 4 - Fluvial Flooding (floodinfo.ie, October 2025)

4.5 Groundwater Flooding

4.5.1 Groundwater flooding occurs when the underground water table rises high enough to reach the ground surface or enter basements and underground structures, typically after periods of prolonged, intense rainfall or persistent wet weather that saturates permeable rock and soil.

4.5.2 Figure 5 below notes that there is no recorded risk of groundwater flooding in the area.

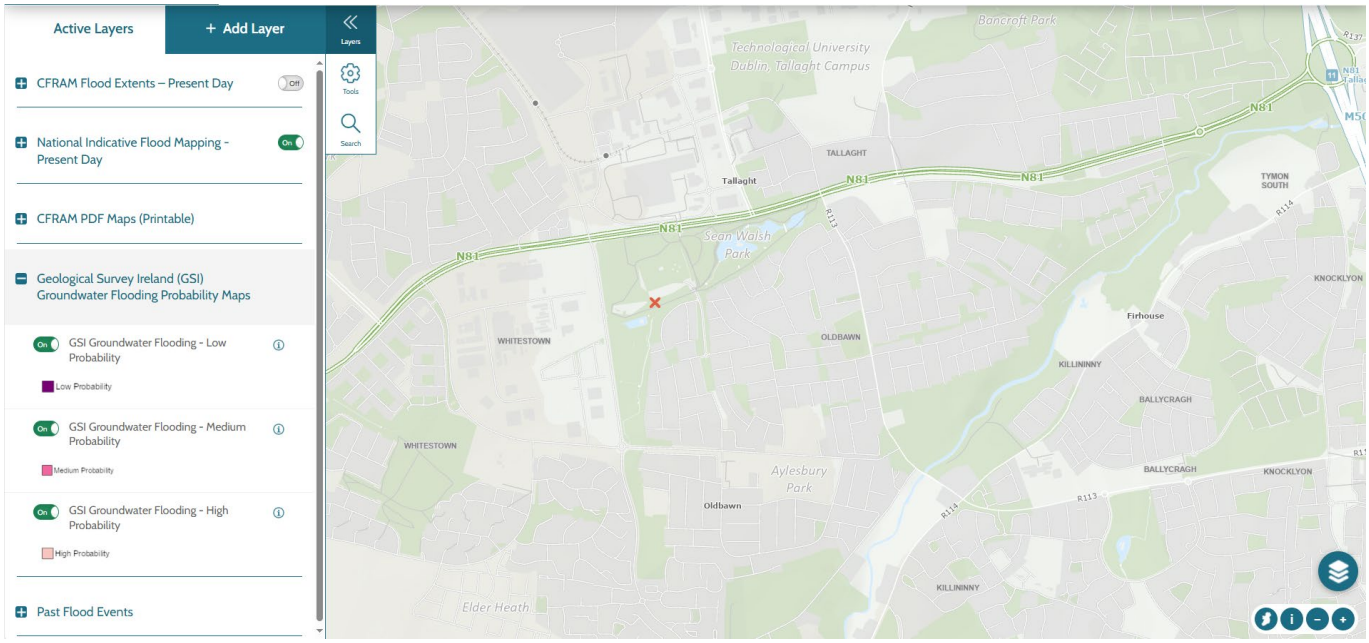


Figure 5 - Groundwater Flooding - (floodinfo.ie, October 2025)

4.6 Pluvial Flooding

4.6.1 Pluvial flooding occurs when the amount of rainfall exceeds the capacity of urban water drainage systems or the ground to absorb it.

4.6.2 As shown in Figure 6 below, there is no risk.

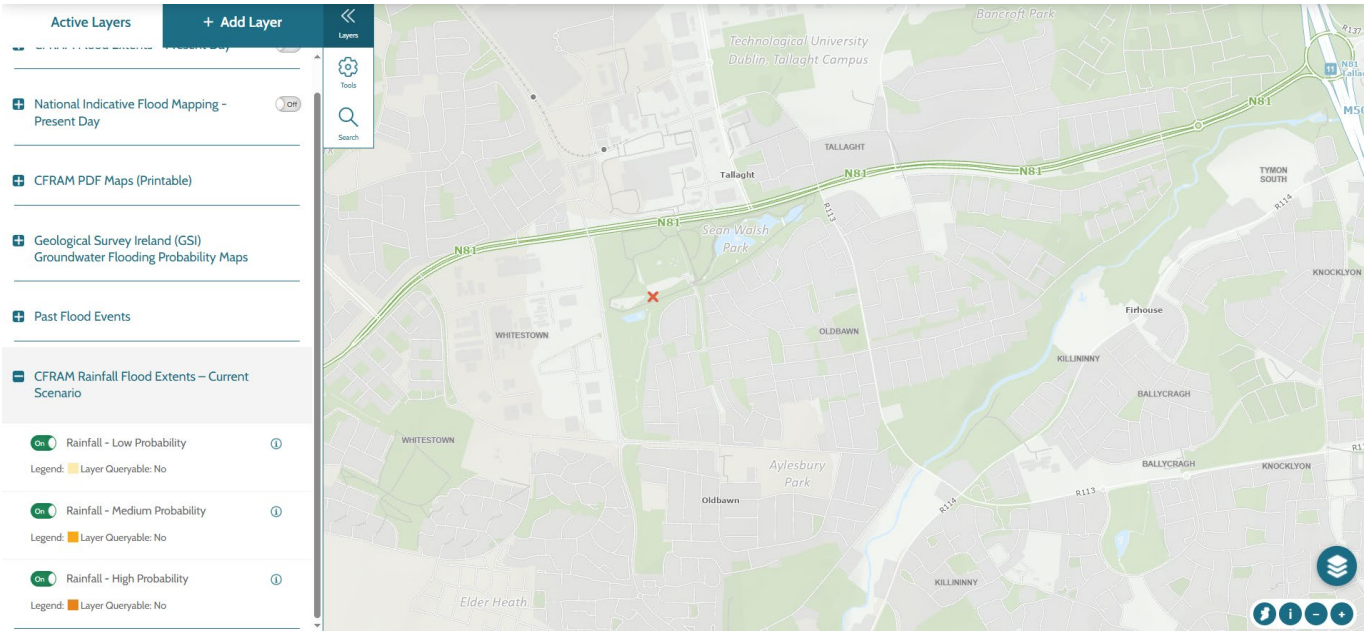


Figure 6 – Pluvial Flooding (floodinfo.ie, October 2025)

Stage 2 – Initial Flood Risk Assessment

In the Strategic Flood Risk Assessment prepared by South Dublin County Council in July 2022, the flood zones are defined as the following:

- **Flood Zone A** where the probability of flooding from rivers and the sea is highest (greater than 1% or 1 in 100 for river flooding or 0.5% or 1 in 200 for coastal flooding);

- **Flood Zone B** where the probability of flooding from rivers and the sea is moderate (between 0.1% or 1 in 1000 and 1% or 1 in 100 for river flooding and between 0.1% or 1 in 1000 and 0.5% or 1 in 200 for coastal flooding);

- **Flood Zone C** where the probability of flooding from rivers and the sea is low (less than 0.1% or 1 in 1000 for both river and coastal flooding. Flood Zone C covers all plan areas which are not in zones A or B.

  From reviewing the information included in Stage 1, the proposed development area can be designated at Flood Zone C given there were no highlighted risks from any flood type.

5 DRAINAGE PROPOSAL

5.1 Overview of System

5.1.1 It is anticipated that there is no existing primary drainage system currently installed within the development area, with water currently allowed to runoff to the nearby Whitestown Stream or infiltrate over time.

5.1.2 The new synthetic bowling green shall consist of a minimum 300mm thick sub-base layer of type1 stone modified for drainage. Above this is double layer of porous asphalt engineered layer of 40mm and 25mm thick, and a needle punch synthetic turf system expected to be 12mm.

5.1.3 The bowling green drainage system shall consist of a lateral drainage system, with 80mm diameter perforated drains cut in at 6m centres. The lateral drains shall connect into a perimeter drain of 150mm in diameter laid under the surrounding footpath flowing to the northwest corner of the site, where it shall connect via a flow control manhole into the existing surface water network. The greenfield runoff rate from the site has been calculated as 0.3l/s, however, in line with CIRIA guidance the flow control shall be set to 1.0l/s in order to avoid regular blockages.

5.2 Additional Supporting Drawings

5.2.1 Refer to the provided suite of drawings. This indicates the proposed footprint of the new facility and identifies the location of main features within the existing site such as kerb-lines, utilities, and fencing.

5.3 Proposed SUDS measures Summary

5.3.1 The drainage new bowling green subbase shall act as an attenuation system, with the lateral drainage system installed on the formation layer removing water at a controlled rate of 1.0l/s.

5.3.2 While it has been assumed that the subsoils are effectively impermeable for the purposes of this design, there will be no impermeable layers within the construction and if any percolation is possible then it will be allowed to continue.

5.3.3 Refer to APPENDIX A – RUNOFF CALCULATIONS. In order to maximise the available attenuation within the bowling green subbase, a flow control will be installed in the outfall manhole to restrict the flow to 1.0l/s. This allows the voids within the bowling green subbase to act as an attenuation system. There are no impermeable membranes to be installed as part of this development so infiltration into the subsoils will continue, which will reduce any water reaching the outfall.

5.4 InfoDrainage Calculations

5.4.1 As part of the design of this drainage system detailed calculations were created to better inform the requirements of this site, see Appendix A. The system has been design to manage all storms to include the 1 in 100 year storm event +40% to account for climate change to allow for a robust system that will be effective and beneficial to the development and surrounding areas.

5.4.2 This drainage model confirms there will be no flooding anywhere in the new network, and also that there will be no surface flooding during the 1 in 100 year +40% climate change storm, while restricting the discharge into the existing network to a rate of 1.0l/s.

5.4.3 For the purposes of this design, the soils within the development area have been determined to be impermeable.

5.5 Construction Phase – Key Stage Inspections

5.5.1 As a quality control measure, the bowling green construction is to be controlled by Key Stage Inspections (KSI's) at each phase of construction. This will allow porosity testing to be carried out in line with BS EN standards to ensure that the bowling green is draining correctly at key stage of construction.

5.6 Proposed Adoption and Maintenance

5.6.1 Following completion of the works, South Dublin County Council will assume ownership and subsequent maintenance of the drainage system. There are no set adoption processes/criteria prior to ownership being transferred from the contractor.

5.6.2 The drainage design has been contained to onsite attenuation of the surface water within the bowling green base, with a new infiltration trench installed, the length of the proposed bowling green. As per chapter 32 of the CIRIA SuDS Manual (2015), the maintenance of the drainage system consists of:

SuDS Element	Maintenance Required	Frequency of Visit
Silt Trap Manhole	Litter and debris removal	Regular Maintenance
	Sediment management	Every three months in first year and then annually
Rodding Eye	Sediment management	Occasional Maintenance
Lateral Drainage	Rodding to remove debris/silt	Annually
	Structure rehabilitation/repair	Occasional maintenance
Stone Base Construction	Structure rehabilitation/repair	Occasional maintenance
Synthetic Turf System	Brushing and litter picking	Weekly maintenance
	Infill decompaction	Quarterly maintenance

Table 1 - SuDS Maintenance Schedule

5.6.3 The bowling green maintenance will be carried out on a regular basis to ensure the surface remains in suitable playing condition. This includes various measures from litter picking and brushing of the turf, to deep decompaction of the infill. The maintenance works will help to ensure that water is still able to freely pass through the synthetic system and enter the drainage system to be installed.

5.6.4 As detailed above, various other means of maintenance are to be undertaken to ensure the drainage system remains clear of silting and blockages in order to keep the system operating effectively. Routine maintenance will include inspection of all manholes and rodding eyes to ensure there is no excess silting of the drainage system preventing water from flowing efficiently.

5.6.5 It is noted that each element listed below may inherently come with some constraints or may be restricted due to poor installation. These risks have been considered in the below table with best practice approaches for how to mitigate and reduce these risks.

SuDS Element	Potential Constraints	Best Practices
Silt Trap Manhole	- Restricted access or blockages - Confined space requirements - Hazardous gases/odours	- Use trained personnel for confined spaces - Inspect in dry weather - Record silt levels and trends
Rodding Eye	- Hidden or incorrectly located - Prone to surface damage	- Ensure clear surface access - Flush and jet if needed - Mark on site layout plans
Lateral Drainage	- Long or inaccessible pipe runs - Root ingress or collapse - Access may disrupt surfaces	- Annual jetting- Use CCTV if issues persist - Trenchless repair where possible
Stone Base Construction	- Difficult to inspect or access- Risk of compaction reducing permeability	- Restrict heavy loads- Monitor surface runoff - Use geotextiles during construction
Synthetic Turf System	- Litter blocking drainage - Infill compaction - Moss/algae build-up in shaded areas	- Weekly brushing - Quarterly decompaction - Apply moss treatment - Maintain edge drainage

Table 2 – Potential Constraints and Best Practices

6 OVERLAND EXEEDANCE

6.1 The overland exceedance routes have been considered as part of this design. It is noted that the existing greenfield area features bunded soils with significant slopes which will allow surface water to runoff at uncontrolled rates. The proposed facility will remove the bunded material and be installed flat, in line with World Bowls requirements, and remove the overland runoff potential. All water landing within the new development will enter the proposed new drainage network.

7 SUMMARY

7.1 In conclusion, the new synthetic bowling green will not create any additional surface water runoff to the surrounding areas. The base will create sufficient attenuation to contain all surface water and allow it to discharge at a controlled rate to the local network, as it does currently. The drainage system has been designed to 1 in 100 year storm events +40% climate change.

7.2 The site is located within Flood Zone C, and is not designated as being at risk of any significant flooding from rivers or the sea.

7.3 The proposed drainage strategy has been designed in accordance with the National Planning Policy Framework (NPPF) DEFRA Sustainable Drainage Systems.

APPENDIX A – DRAINAGE CALCULATIONS

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Inflows Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Catchment Area

Type : Catchment Area

Area (ha)	0.116

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	0.750
Winter Volumetric Runoff	0.750
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by:	Checked by:	Approved By:
	CH	PM	DD
Report Details: Type: Junctions Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Name	Junction Type	Easting (m)	Northing (m)	Cover Level (m)	Depth (m)	Invert Level (m)	Chamber Shape	Diameter (m)
Manhole	Manhole	81.219	104.631	8.886	1.196	7.690	Circular	1.200
Manhole (1)	Manhole	66.432	100.506	8.971	1.435	7.536	Circular	1.200

Name	Lock
Manhole	None
Manhole (1)	None

Inlets

Junction	Inlet Name	Incoming Item(s)	Bypass Destination	Capacity Type
Manhole	Inlet	Pipe	(None)	No Restriction
Manhole (1)	Inlet	Pipe (1)	(None)	No Restriction

Outlets

Junction	Outlet Name	Outgoing Connection	Outlet Type
Manhole	Outlet	Pipe (1)	Orifice
	Diameter (m)	0.025	
	Coefficient of Discharge	0.600	
	Invert Level (m)	7.690	

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by:	Checked by:	Approved By:
	CH	PM	DD
Report Details: Type: Stormwater Controls Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Porous Paving

Type : Porous Paving

Dimensions

Exceedance Level (m)	7.983
Depth (m)	0.365
Base Level (m)	7.618
Paving Layer Depth (mm)	65
Membrane Percolation (m/hr)	1000.0
Porosity (%)	30
Length (m)	48.358
Long. Slope (1:X)	1000.00
Width (m)	24.020
Total Volume (m³)	105.560

Under Drain

Height Above Base (m)	0.000
Diameter (mm)	80
No. of Barrels	6
Release Height (m)	0.000
Friction Scheme	Manning's n
n	0.015

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	Catchment Area
Bypass Destination	(None)
Capacity Type	No Restriction

Outlets

Outlet

Outgoing Connection	Pipe
Outlet Type	Free Discharge

Advanced

Base Infiltration Rate (m/hr)	0.0
Side Infiltration Rate (m/hr)	0.0
Safety Factor	2.0
Conductivity (m/hr)	500.0

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Connections Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
Pipe	4.002	Pipe	-55.459		0.6	150	8.180	7.618
Pipe (1)	15.351	Pipe	100.000		0.6	150	8.886	7.690

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance
Pipe	8.886	7.690		None		(None)	(None)
Pipe (1)	8.971	7.536		None	1.4	(None)	(None)

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
Manhole	8.886 7.690	Diameter / Length: 1.200	{1} Pipe	Pipe	7.690	Diam/Width:150	Manhole
E:81.219 N:104.631	1.196		{a} Pipe (1)	Pipe	7.690	Diam/Width:150	Not Applicable
Manhole (1)	8.971 7.536	Diameter / Length: 1.200	{1} Pipe (1)	Pipe	7.536	Diam/Width:150	Manhole
E:66.432 N:100.506	1.435						Not Applicable

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Inflow Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Catchment Area	Porous Paving		Time of Concentration	0.116	100	0	100	0.116
TOTAL		**0.0**		**0.116**				**0.116**

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by:	Checked by:	Approved By:
	CH	PM	DD
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Flow Options

Peak Flow Calculation	(UK) Modified Rational Method
Min. Time of Entry (mins)	5
Max. Travel Time (mins)	30

1.1

Type: FSR

Return Period (years)	1.0
Region	Scotland And Ireland
M5-60 (mm)	17.0
Ratio R	0.300

Pipe Options

Lock Slope Options	None
Design Options	Minimise Excavation
Design Level	Level Soffits
Min. Cover Depth (m)	0.300
Min. Slope (1:X)	500.00
Max. Slope (1:X)	40.00
Min. Velocity (m/s)	1.0
Max. Velocity (m/s)	3.0
Use Flow Restriction	☐
Reduce Channel Depths	☐

Pipe Size Library

Default

Add. Increment (mm)	75
Max. Diameter (mm)	0

Diameter (mm)	Min. Slope (1:X)	Max. Slope (1:X)
100	0.00	0.00
150	0.00	0.00

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by:	Checked by:	Approved By:
	CH	PM	DD
Report Details: Type: Network Design Criteria Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Manhole Options

Apply Offset	☐

Manhole Size Library

Default

Diameter / Width

Connection (mm)	Diameter / Length (m)	Width (m)
0	1.200	0.000
375	1.350	0.000
500	1.500	0.000
750	1.800	0.000

Additional Sizing

Connection (mm)	900
Diameter / Length (m)	0.900
Width (m)	0.000

Depth

Depth (m)	Diameter / Length (m)	Width (m)
0.000	1.050	0.000
1.500	1.200	0.000

Access

Depth (m)	Ladder Protrusion (mm)
0.000	130
3.000	230

Benching Requirements

Landing Width (mm)	500
Benching Width (mm)	225

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Outfall Details Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Outfalls

Outfall	Outfall Type	Gated	Fixed Surcharged Level (m)	Level Curve
Manhole (1)	Free Discharge			

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Title: Rainfall Analysis Criteria	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	0
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Inflows Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Summary Results for Catchment Area: Rank By: Max. Inflow

Storm Event	Inflow Area (ha)	Max. Inflow (L/s)	Total Inflow Volume (m³)
1.100.40: 100 years: +40 %: 15 mins: Summer	0.12	53.5	23.343
1.100.40: 100 years: +40 %: 15 mins: Winter	0.12	50.3	23.334
1.100.40: 100 years: +40 %: 30 mins: Summer	0.12	36.8	31.780
1.100.40: 100 years: +40 %: 30 mins: Winter	0.12	34.5	31.784
1.100.40: 100 years: +40 %: 60 mins: Summer	0.12	32.5	40.609
1.100.40: 100 years: +40 %: 60 mins: Winter	0.12	26.2	40.601
1.100.40: 100 years: +40 %: 120 mins: Summer	0.12	24.0	50.583
1.100.40: 100 years: +40 %: 120 mins: Winter	0.12	17.3	50.571
1.100.40: 100 years: +40 %: 240 mins: Summer	0.12	16.1	62.008
1.100.40: 100 years: +40 %: 240 mins: Winter	0.12	10.8	62.028
1.100.40: 100 years: +40 %: 360 mins: Summer	0.12	12.3	69.558
1.100.40: 100 years: +40 %: 360 mins: Winter	0.12	8.1	69.574
1.100.40: 100 years: +40 %: 480 mins: Summer	0.12	10.2	75.410
1.100.40: 100 years: +40 %: 480 mins: Winter	0.12	6.6	75.386

1.100.40: 100 years: +40 %: 960 mins: Summer	0.12	6.2	91.217
1.100.40: 100 years: +40 %: 960 mins: Winter	0.12	4.0	91.212
1.100.40: 100 years: +40 %: 1440 mins: Summer	0.12	4.6	101.888
1.100.40: 100 years: +40 %: 1440 mins: Winter	0.12	3.0	101.815
1.30: 30 years: +0 %: 15 mins: Summer	0.12	29.1	12.743
1.30: 30 years: +0 %: 15 mins: Winter	0.12	27.3	12.752
1.30: 30 years: +0 %: 30 mins: Summer	0.12	20.1	17.368
1.30: 30 years: +0 %: 30 mins: Winter	0.12	18.9	17.362
1.30: 30 years: +0 %: 60 mins: Summer	0.12	17.9	22.334
1.30: 30 years: +0 %: 60 mins: Winter	0.12	14.4	22.335
1.30: 30 years: +0 %: 120 mins: Summer	0.12	13.3	28.037
1.30: 30 years: +0 %: 120 mins: Winter	0.12	9.6	28.046
1.30: 30 years: +0 %: 240 mins: Summer	0.12	9.0	34.733
1.30: 30 years: +0 %: 240 mins: Winter	0.12	6.1	34.722
1.30: 30 years: +0 %: 360 mins: Summer	0.12	6.9	39.214
1.30: 30 years: +0 %: 360 mins: Winter	0.12	4.6	39.230
1.30: 30 years: +0 %: 480 mins: Summer	0.12	5.8	42.677

1.30: 30 years: +0 %: 480 mins: Winter	0.12	3.8	42.689
1.30: 30 years: +0 %: 960 mins: Summer	0.12	3.6	52.251
1.30: 30 years: +0 %: 960 mins: Winter	0.12	2.3	52.296
1.30: 30 years: +0 %: 1440 mins: Summer	0.12	2.7	58.802
1.30: 30 years: +0 %: 1440 mins: Winter	0.12	1.7	58.768

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Summary Results for Manhole: Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
1.100.40: 100 years: +40 %: 15 mins: Summer	8.886	7.690	7.690	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.100.40: 100 years: +40 %: 15 mins: Winter	8.886	7.690	7.690	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.100.40: 100 years: +40 %: 30 mins: Summer	8.886	7.690	7.729	0.039	0.2	0.044	0.000	0.2	0.118	OK
1.100.40: 100 years: +40 %: 30 mins: Winter	8.886	7.690	7.729	0.039	0.2	0.044	0.000	0.2	0.119	OK
1.100.40: 100 years: +40 %: 60 mins: Summer	8.886	7.690	7.757	0.067	0.3	0.076	0.000	0.3	1.008	OK
1.100.40: 100 years: +40 %: 60 mins: Winter	8.886	7.690	7.757	0.067	0.3	0.076	0.000	0.3	1.013	OK
1.100.40: 100 years: +40 %: 120 mins: Summer	8.886	7.690	7.784	0.094	0.4	0.107	0.000	0.4	3.236	OK
1.100.40: 100 years: +40 %: 120 mins: Winter	8.886	7.690	7.784	0.094	0.4	0.106	0.000	0.4	3.251	OK
1.100.40: 100 years: +40 %: 240 mins: Summer	8.886	7.690	7.812	0.122	0.4	0.138	0.000	0.4	8.284	OK
1.100.40: 100 years: +40 %: 240 mins: Winter	8.886	7.690	7.812	0.122	0.4	0.138	0.000	0.4	8.324	OK
1.100.40: 100 years: +40 %: 360 mins: Summer	8.886	7.690	7.828	0.138	0.5	0.156	0.000	0.5	13.596	OK
1.100.40: 100 years: +40 %: 360 mins: Winter	8.886	7.690	7.828	0.138	0.5	0.156	0.000	0.5	13.656	OK
1.100.40: 100 years: +40 %: 480 mins: Summer	8.886	7.690	7.839	0.149	0.5	0.169	0.000	0.5	19.006	OK
1.100.40: 100 years: +40 %: 480 mins: Winter	8.886	7.690	7.839	0.149	0.5	0.169	0.000	0.5	19.074	OK
1.100.40: 100 years: +40 %: 960 mins: Summer	8.886	7.690	7.860	0.170	0.5	0.192	0.000	0.5	40.266	Surcharged
1.100.40: 100 years: +40 %: 960 mins: Winter	8.886	7.690	7.861	0.171	0.5	0.194	0.000	0.5	40.400	Surcharged
1.100.40: 100 years: +40 %: 1440 mins: Summer	8.886	7.690	7.869	0.179	0.5	0.202	0.000	0.5	59.683	Surcharged
1.100.40: 100 years: +40 %: 1440 mins: Winter	8.886	7.690	7.868	0.178	0.5	0.202	0.000	0.5	59.818	Surcharged
1.30: 30 years: +0 %: 15 mins: Summer	8.886	7.690	7.690	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.30: 30 years: +0 %: 15 mins: Winter	8.886	7.690	7.690	0.000	0.0	0.000	0.000	0.0	0.000	OK

1.30: 30 years: +0 %: 30 mins: Summer	8.886	7.690	7.690	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.30: 30 years: +0 %: 30 mins: Winter	8.886	7.690	7.690	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.30: 30 years: +0 %: 60 mins: Summer	8.886	7.690	7.706	0.016	0.1	0.018	0.000	0.1	0.179	OK
1.30: 30 years: +0 %: 60 mins: Winter	8.886	7.690	7.706	0.016	0.1	0.018	0.000	0.1	0.179	OK
1.30: 30 years: +0 %: 120 mins: Summer	8.886	7.690	7.721	0.031	0.2	0.036	0.000	0.2	1.436	OK
1.30: 30 years: +0 %: 120 mins: Winter	8.886	7.690	7.721	0.032	0.2	0.036	0.000	0.2	1.444	OK
1.30: 30 years: +0 %: 240 mins: Summer	8.886	7.690	7.738	0.048	0.2	0.054	0.000	0.2	4.465	OK
1.30: 30 years: +0 %: 240 mins: Winter	8.886	7.690	7.738	0.048	0.2	0.054	0.000	0.2	4.448	OK
1.30: 30 years: +0 %: 360 mins: Summer	8.886	7.690	7.747	0.057	0.3	0.065	0.000	0.3	7.703	OK
1.30: 30 years: +0 %: 360 mins: Winter	8.886	7.690	7.748	0.058	0.3	0.065	0.000	0.3	7.672	OK
1.30: 30 years: +0 %: 480 mins: Summer	8.886	7.690	7.754	0.064	0.3	0.072	0.000	0.3	10.989	OK
1.30: 30 years: +0 %: 480 mins: Winter	8.886	7.690	7.754	0.064	0.3	0.073	0.000	0.3	10.951	OK
1.30: 30 years: +0 %: 960 mins: Summer	8.886	7.690	7.766	0.076	0.3	0.086	0.000	0.3	23.652	OK
1.30: 30 years: +0 %: 960 mins: Winter	8.886	7.690	7.768	0.078	0.3	0.088	0.000	0.3	23.643	OK
1.30: 30 years: +0 %: 1440 mins: Summer	8.886	7.690	7.773	0.083	0.3	0.094	0.000	0.3	34.204	OK
1.30: 30 years: +0 %: 1440 mins: Winter	8.886	7.690	7.773	0.083	0.3	0.094	0.000	0.3	34.169	OK

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Summary Results for Manhole (1): Rank By: Max. Depth

Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
1.100.40: 100 years: +40 %: 15 mins: Summer	8.971	7.536	7.536	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.100.40: 100 years: +40 %: 15 mins: Winter	8.971	7.536	7.536	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.100.40: 100 years: +40 %: 30 mins: Summer	8.971	7.536	7.548	0.011	0.2	0.000	0.000	0.2	0.104	OK
1.100.40: 100 years: +40 %: 30 mins: Winter	8.971	7.536	7.548	0.011	0.2	0.000	0.000	0.2	0.105	OK
1.100.40: 100 years: +40 %: 60 mins: Summer	8.971	7.536	7.550	0.013	0.3	0.000	0.000	0.3	0.992	OK
1.100.40: 100 years: +40 %: 60 mins: Winter	8.971	7.536	7.550	0.013	0.3	0.000	0.000	0.3	0.997	OK
1.100.40: 100 years: +40 %: 120 mins: Summer	8.971	7.536	7.551	0.015	0.4	0.000	0.000	0.4	3.219	OK
1.100.40: 100 years: +40 %: 120 mins: Winter	8.971	7.536	7.551	0.015	0.4	0.000	0.000	0.4	3.234	OK
1.100.40: 100 years: +40 %: 240 mins: Summer	8.971	7.536	7.552	0.016	0.4	0.000	0.000	0.4	8.266	OK
1.100.40: 100 years: +40 %: 240 mins: Winter	8.971	7.536	7.552	0.016	0.4	0.000	0.000	0.4	8.306	OK
1.100.40: 100 years: +40 %: 360 mins: Summer	8.971	7.536	7.553	0.016	0.5	0.000	0.000	0.5	13.578	OK
1.100.40: 100 years: +40 %: 360 mins: Winter	8.971	7.536	7.553	0.016	0.5	0.000	0.000	0.5	13.637	OK
1.100.40: 100 years: +40 %: 480 mins: Summer	8.971	7.536	7.553	0.017	0.5	0.000	0.000	0.5	18.987	OK
1.100.40: 100 years: +40 %: 480 mins: Winter	8.971	7.536	7.553	0.017	0.5	0.000	0.000	0.5	19.055	OK
1.100.40: 100 years: +40 %: 960 mins: Summer	8.971	7.536	7.554	0.017	0.5	0.000	0.000	0.5	40.248	OK
1.100.40: 100 years: +40 %: 960 mins: Winter	8.971	7.536	7.554	0.017	0.5	0.000	0.000	0.5	40.382	OK
1.100.40: 100 years: +40 %: 1440 mins: Summer	8.971	7.536	7.554	0.018	0.5	0.000	0.000	0.5	59.666	OK
1.100.40: 100 years: +40 %: 1440 mins: Winter	8.971	7.536	7.554	0.017	0.5	0.000	0.000	0.5	59.801	OK
1.30: 30 years: +0 %: 15 mins: Summer	8.971	7.536	7.536	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.30: 30 years: +0 %: 15 mins: Winter	8.971	7.536	7.536	0.000	0.0	0.000	0.000	0.0	0.000	OK

1.30: 30 years: +0 %: 30 mins: Summer	8.971	7.536	7.536	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.30: 30 years: +0 %: 30 mins: Winter	8.971	7.536	7.536	0.000	0.0	0.000	0.000	0.0	0.000	OK
1.30: 30 years: +0 %: 60 mins: Summer	8.971	7.536	7.543	0.007	0.1	0.000	0.000	0.1	0.171	OK
1.30: 30 years: +0 %: 60 mins: Winter	8.971	7.536	7.543	0.007	0.1	0.000	0.000	0.1	0.171	OK
1.30: 30 years: +0 %: 120 mins: Summer	8.971	7.536	7.547	0.011	0.2	0.000	0.000	0.2	1.424	OK
1.30: 30 years: +0 %: 120 mins: Winter	8.971	7.536	7.547	0.011	0.2	0.000	0.000	0.2	1.431	OK
1.30: 30 years: +0 %: 240 mins: Summer	8.971	7.536	7.549	0.012	0.2	0.000	0.000	0.2	4.451	OK
1.30: 30 years: +0 %: 240 mins: Winter	8.971	7.536	7.549	0.012	0.2	0.000	0.000	0.2	4.434	OK
1.30: 30 years: +0 %: 360 mins: Summer	8.971	7.536	7.549	0.013	0.3	0.000	0.000	0.3	7.689	OK
1.30: 30 years: +0 %: 360 mins: Winter	8.971	7.536	7.549	0.013	0.3	0.000	0.000	0.3	7.658	OK
1.30: 30 years: +0 %: 480 mins: Summer	8.971	7.536	7.550	0.013	0.3	0.000	0.000	0.3	10.975	OK
1.30: 30 years: +0 %: 480 mins: Winter	8.971	7.536	7.550	0.013	0.3	0.000	0.000	0.3	10.937	OK
1.30: 30 years: +0 %: 960 mins: Summer	8.971	7.536	7.550	0.014	0.3	0.000	0.000	0.3	23.639	OK
1.30: 30 years: +0 %: 960 mins: Winter	8.971	7.536	7.550	0.014	0.3	0.000	0.000	0.3	23.630	OK
1.30: 30 years: +0 %: 1440 mins: Summer	8.971	7.536	7.551	0.014	0.3	0.000	0.000	0.3	34.193	OK
1.30: 30 years: +0 %: 1440 mins: Winter	8.971	7.536	7.551	0.014	0.3	0.000	0.000	0.3	34.159	OK

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Summary Results for Porous Paving: Rank By: Max. Avg. Depth

Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Total Lost Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Percentage Available (%)	Status
1.100.40: 100 years: +40 %: 15 mins: Summer	7.871	7.634	0.205	0.017	53.5	23.311	0.000	0.000	0.0	0.000	77.916	OK
1.100.40: 100 years: +40 %: 15 mins: Winter	7.866	7.635	0.200	0.017	50.3	23.299	0.000	0.000	0.0	0.000	77.929	OK
1.100.40: 100 years: +40 %: 30 mins: Summer	7.893	7.729	0.227	0.111	36.8	31.718	0.000	0.000	0.2	0.172	69.952	OK
1.100.40: 100 years: +40 %: 30 mins: Winter	7.888	7.729	0.222	0.111	34.5	31.726	0.000	0.000	0.2	0.173	69.945	OK
1.100.40: 100 years: +40 %: 60 mins: Summer	7.900	7.757	0.234	0.139	32.5	40.469	0.000	0.000	0.3	1.098	61.663	OK
1.100.40: 100 years: +40 %: 60 mins: Winter	7.880	7.757	0.214	0.139	26.2	40.449	0.000	0.000	0.3	1.104	61.682	OK
1.100.40: 100 years: +40 %: 120 mins: Summer	7.874	7.784	0.208	0.166	24.0	49.655	0.000	0.000	0.4	3.358	52.960	OK
1.100.40: 100 years: +40 %: 120 mins: Winter	7.847	7.784	0.180	0.166	17.3	49.621	0.000	0.000	0.4	3.373	52.993	OK
1.100.40: 100 years: +40 %: 240 mins: Summer	7.831	7.812	0.165	0.194	16.1	59.270	0.000	0.000	0.4	8.431	43.852	OK
1.100.40: 100 years: +40 %: 240 mins: Winter	7.813	7.812	0.147	0.194	10.8	59.319	0.000	0.000	0.4	8.471	43.805	OK
1.100.40: 100 years: +40 %: 360 mins: Summer	7.829	7.828	0.163	0.210	12.3	64.901	0.000	0.000	0.5	13.751	38.518	OK
1.100.40: 100 years: +40 %: 360 mins: Winter	7.829	7.828	0.163	0.210	8.1	64.979	0.000	0.000	0.5	13.811	38.443	OK
1.100.40: 100 years: +40 %: 480 mins: Summer	7.840	7.839	0.174	0.221	10.2	68.754	0.000	0.000	0.5	19.162	34.868	OK
1.100.40: 100 years: +40 %: 480 mins: Winter	7.840	7.839	0.174	0.221	6.6	68.844	0.000	0.000	0.5	19.230	34.782	OK

1.100.40: 100 years: +40 %: 960 mins: Summer	7.861	7.860	0.195	0.242	6.2	76.117	0.000	0.000	0.5	40.402	27.893	OK
1.100.40: 100 years: +40 %: 960 mins: Winter	7.862	7.861	0.196	0.243	4.0	76.515	0.000	0.000	0.5	40.535	27.515	OK
1.100.40: 100 years: +40 %: 1440 mins: Summer	7.870	7.869	0.204	0.251	4.6	79.243	0.000	0.000	0.5	59.784	24.931	OK
1.100.40: 100 years: +40 %: 1440 mins: Winter	7.869	7.868	0.203	0.250	3.0	78.983	0.000	0.000	0.5	59.918	25.177	OK
1.30: 30 years: +0 %: 15 mins: Summer	7.772	7.619	0.106	0.001	29.1	12.629	0.000	0.000	0.0	0.000	88.036	OK
1.30: 30 years: +0 %: 15 mins: Winter	7.770	7.619	0.104	0.001	27.3	12.649	0.000	0.000	0.0	0.000	88.017	OK
1.30: 30 years: +0 %: 30 mins: Summer	7.782	7.687	0.116	0.070	20.1	17.325	0.000	0.000	0.0	0.000	83.588	OK
1.30: 30 years: +0 %: 30 mins: Winter	7.780	7.687	0.114	0.070	18.9	17.319	0.000	0.000	0.0	0.000	83.593	OK
1.30: 30 years: +0 %: 60 mins: Summer	7.788	7.706	0.122	0.088	17.9	22.299	0.000	0.000	0.1	0.198	78.876	OK
1.30: 30 years: +0 %: 60 mins: Winter	7.778	7.706	0.111	0.088	14.4	22.301	0.000	0.000	0.1	0.198	78.873	OK
1.30: 30 years: +0 %: 120 mins: Summer	7.775	7.721	0.109	0.103	13.3	27.700	0.000	0.000	0.2	1.474	73.759	OK
1.30: 30 years: +0 %: 120 mins: Winter	7.758	7.721	0.092	0.104	9.6	27.710	0.000	0.000	0.2	1.481	73.750	OK
1.30: 30 years: +0 %: 240 mins: Summer	7.750	7.738	0.084	0.120	9.0	33.382	0.000	0.000	0.2	4.518	68.376	OK
1.30: 30 years: +0 %: 240 mins: Winter	7.738	7.738	0.072	0.120	6.1	33.440	0.000	0.000	0.2	4.501	68.322	OK
1.30: 30 years: +0 %: 360 mins: Summer	7.748	7.747	0.082	0.129	7.0	36.722	0.000	0.000	0.3	7.760	65.212	OK
1.30: 30 years: +0 %: 360 mins: Winter	7.748	7.747	0.082	0.130	4.6	36.869	0.000	0.000	0.3	7.730	65.073	OK
1.30: 30 years: +0 %: 480 mins: Summer	7.754	7.754	0.088	0.136	5.8	38.986	0.000	0.000	0.3	11.047	63.067	OK

1.30: 30 years: +0 %: 480 mins: Winter	7.755	7.754	0.089	0.136	3.8	39.184	0.000	0.000	0.3	11.010	62.880	OK
1.30: 30 years: +0 %: 960 mins: Summer	7.767	7.766	0.101	0.148	3.6	43.401	0.000	0.000	0.3	23.698	58.885	OK
1.30: 30 years: +0 %: 960 mins: Winter	7.768	7.767	0.102	0.150	2.3	43.859	0.000	0.000	0.3	23.690	58.451	OK
1.30: 30 years: +0 %: 1440 mins: Summer	7.773	7.773	0.107	0.155	2.7	45.732	0.000	0.000	0.3	34.234	56.676	OK
1.30: 30 years: +0 %: 1440 mins: Winter	7.774	7.773	0.107	0.155	1.7	45.764	0.000	0.000	0.3	34.200	56.647	OK

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by:	Checked by:	Approved By:
	CH	PM	DD
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Summary Results for Pipe: Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
1.100.40: 100 years: +40 %: 15 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.685	0.008	0.000	-0.0	0	0.0	OK
1.100.40: 100 years: +40 %: 15 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.685	0.008	0.000	-0.0	0	0.0	OK
1.100.40: 100 years: +40 %: 30 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.709	0.075	0.000	0.0	0.02	0.2	OK
1.100.40: 100 years: +40 %: 30 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.709	0.075	0.000	0.0	0.02	0.2	OK
1.100.40: 100 years: +40 %: 60 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.734	0.103	0.000	0.0	0.02	0.3	OK
1.100.40: 100 years: +40 %: 60 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.734	0.103	0.000	0.0	0.02	0.3	OK
1.100.40: 100 years: +40 %: 120 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.760	0.130	0.000	0.0	0.03	0.4	OK
1.100.40: 100 years: +40 %: 120 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.760	0.130	0.000	0.0	0.03	0.4	OK
1.100.40: 100 years: +40 %: 240 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.788	0.150	0.000	0.0	0.03	0.4	Surcharged
1.100.40: 100 years: +40 %: 240 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.788	0.150	0.000	0.0	0.03	0.4	Surcharged
1.100.40: 100 years: +40 %: 360 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.804	0.150	0.000	0.0	0.03	0.5	Surcharged
1.100.40: 100 years: +40 %: 360 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.804	0.150	0.000	0.0	0.03	0.5	Surcharged
1.100.40: 100 years: +40 %: 480 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.815	0.150	0.000	0.0	0.04	0.5	Surcharged
1.100.40: 100 years: +40 %: 480 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.815	0.150	0.000	0.0	0.04	0.5	Surcharged
1.100.40: 100 years: +40 %: 960 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.836	0.150	0.000	0.0	0.04	0.5	Surcharged
1.100.40: 100 years: +40 %: 960 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.837	0.150	0.000	0.0	0.04	0.5	Surcharged
1.100.40: 100 years: +40 %: 1440 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.845	0.150	0.000	0.0	0.04	0.5	Surcharged
1.100.40: 100 years: +40 %: 1440 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.844	0.150	0.000	0.0	0.04	0.5	Surcharged
1.30: 30 years: +0 %: 15 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.654	0.001	0.000	-0.0	0	0.0	OK
1.30: 30 years: +0 %: 15 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.654	0.001	0.000	-0.0	0	0.0	OK
1.30: 30 years: +0 %: 30 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.667	0.035	0.000	-0.0	0	0.0	OK
1.30: 30 years: +0 %: 30 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.667	0.035	0.000	-0.0	0	0.0	OK
1.30: 30 years: +0 %: 60 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.682	0.052	0.000	0.0	0.01	0.1	OK
1.30: 30 years: +0 %: 60 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.682	0.052	0.000	0.0	0.01	0.1	OK
1.30: 30 years: +0 %: 120 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.697	0.067	0.000	0.0	0.01	0.2	OK
1.30: 30 years: +0 %: 120 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.697	0.068	0.000	0.0	0.01	0.2	OK
1.30: 30 years: +0 %: 240 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.713	0.084	0.000	0.0	0.02	0.2	OK
1.30: 30 years: +0 %: 240 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.714	0.084	0.000	0.0	0.02	0.2	OK

1.30: 30 years: +0 %: 360 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.723	0.093	0.000	0.0	0.02	0.3	OK
1.30: 30 years: +0 %: 360 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.723	0.094	0.000	0.0	0.02	0.3	OK
1.30: 30 years: +0 %: 480 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.730	0.100	0.000	0.0	0.02	0.3	OK
1.30: 30 years: +0 %: 480 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.730	0.100	0.000	0.0	0.02	0.3	OK
1.30: 30 years: +0 %: 960 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.742	0.112	0.000	0.0	0.02	0.3	OK
1.30: 30 years: +0 %: 960 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.744	0.114	0.000	0.0	0.02	0.3	OK
1.30: 30 years: +0 %: 1440 mins: Summer	Pipe	Porous Paving	Manhole	8.180	7.749	0.119	0.000	0.0	0.03	0.3	OK
1.30: 30 years: +0 %: 1440 mins: Winter	Pipe	Porous Paving	Manhole	8.180	7.749	0.119	0.000	0.0	0.03	0.3	OK

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by:	Checked by:	Approved By:
	CH	PM	DD
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

Summary Results for Pipe (1): Rank By: Max. Flow

Storm Event	Connection Type	From	To	Upstream Cover Level (m)	Max. US Water Level (m)	Max. Flow Depth (m)	Discharge Volume (m³)	Max. Velocity (m/s)	Flow / Capacity	Max. Flow (L/s)	Status
1.100.40: 100 years: +40 %: 15 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.690	0.000	0.000	0.0	0	0.0	OK
1.100.40: 100 years: +40 %: 15 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.690	0.000	0.000	0.0	0	0.0	OK
1.100.40: 100 years: +40 %: 30 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.729	0.012	0.104	0.3	0.01	0.2	OK
1.100.40: 100 years: +40 %: 30 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.729	0.012	0.105	0.3	0.01	0.2	OK
1.100.40: 100 years: +40 %: 60 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.757	0.014	0.992	0.4	0.02	0.3	OK
1.100.40: 100 years: +40 %: 60 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.757	0.014	0.997	0.4	0.02	0.3	OK
1.100.40: 100 years: +40 %: 120 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.784	0.015	3.219	0.4	0.02	0.4	OK
1.100.40: 100 years: +40 %: 120 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.784	0.015	3.234	0.4	0.02	0.4	OK
1.100.40: 100 years: +40 %: 240 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.812	0.016	8.266	0.4	0.02	0.4	OK
1.100.40: 100 years: +40 %: 240 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.812	0.016	8.306	0.4	0.02	0.4	OK
1.100.40: 100 years: +40 %: 360 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.828	0.017	13.578	0.4	0.03	0.5	OK
1.100.40: 100 years: +40 %: 360 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.828	0.017	13.637	0.4	0.03	0.5	OK
1.100.40: 100 years: +40 %: 480 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.839	0.017	18.987	0.4	0.03	0.5	OK
1.100.40: 100 years: +40 %: 480 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.839	0.017	19.055	0.4	0.03	0.5	OK
1.100.40: 100 years: +40 %: 960 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.860	0.018	40.248	0.4	0.03	0.5	Surcharged
1.100.40: 100 years: +40 %: 960 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.861	0.018	40.382	0.4	0.03	0.5	Surcharged
1.100.40: 100 years: +40 %: 1440 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.869	0.018	59.666	0.4	0.03	0.5	Surcharged
1.100.40: 100 years: +40 %: 1440 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.868	0.018	59.801	0.4	0.03	0.5	Surcharged
1.30: 30 years: +0 %: 15 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.690	0.000	0.000	0.0	0	0.0	OK
1.30: 30 years: +0 %: 15 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.690	0.000	0.000	0.0	0	0.0	OK
1.30: 30 years: +0 %: 30 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.690	0.000	0.000	0.0	0	0.0	OK
1.30: 30 years: +0 %: 30 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.690	0.000	0.000	0.0	0	0.0	OK
1.30: 30 years: +0 %: 60 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.706	0.007	0.171	0.2	0	0.1	OK
1.30: 30 years: +0 %: 60 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.706	0.007	0.171	0.2	0	0.1	OK
1.30: 30 years: +0 %: 120 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.721	0.011	1.424	0.3	0.01	0.2	OK
1.30: 30 years: +0 %: 120 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.721	0.011	1.431	0.3	0.01	0.2	OK
1.30: 30 years: +0 %: 240 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.738	0.012	4.451	0.4	0.01	0.2	OK
1.30: 30 years: +0 %: 240 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.738	0.012	4.434	0.4	0.01	0.2	OK

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Connections Summary Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

1.30: 30 years: +0 %: 360 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.747	0.013	7.689	0.4	0.02	0.3	OK
1.30: 30 years: +0 %: 360 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.748	0.013	7.658	0.4	0.02	0.3	OK
1.30: 30 years: +0 %: 480 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.754	0.013	10.975	0.4	0.02	0.3	OK
1.30: 30 years: +0 %: 480 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.754	0.013	10.937	0.4	0.02	0.3	OK
1.30: 30 years: +0 %: 960 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.766	0.014	23.639	0.4	0.02	0.3	OK
1.30: 30 years: +0 %: 960 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.768	0.014	23.630	0.4	0.02	0.3	OK
1.30: 30 years: +0 %: 1440 mins: Summer	Pipe	Manhole	Manhole (1)	8.886	7.773	0.014	34.193	0.4	0.02	0.3	OK
1.30: 30 years: +0 %: 1440 mins: Winter	Pipe	Manhole	Manhole (1)	8.886	7.773	0.014	34.159	0.4	0.02	0.3	OK

Project:	Date:		
Sean Walsh Park Bowling Green Tallaght Dublin	13/10/2025		
	Designed by: CH	Checked by: PM	Approved By: DD
Report Details: Type: Phase Management Storm Phase: Phase	Company Address: Sports Labs Ltd 1 Adam Square Livingston		

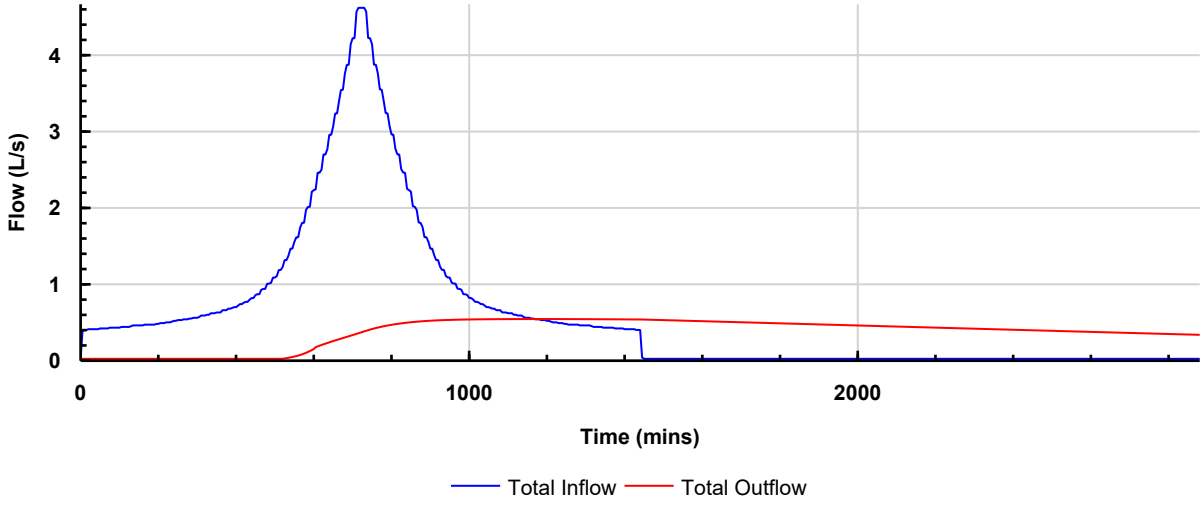
Phase
1.100.40: 100 years: Increase Rainfall (%): +40: 1440 mins: Summer

Tables

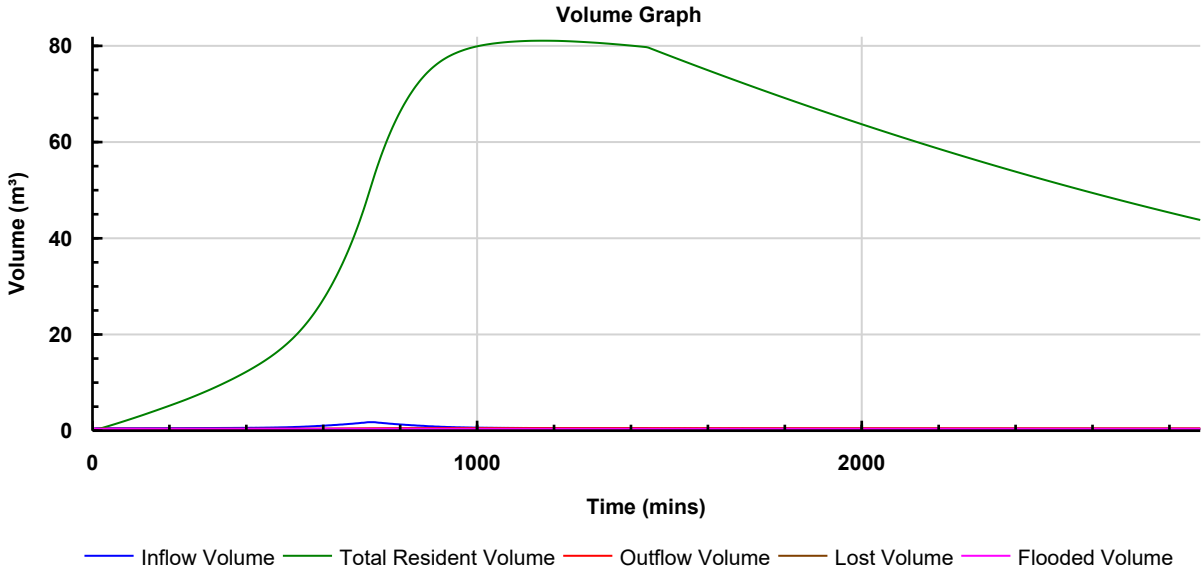
Name	Max. Inflow (L/s)	Total Inflow Volume (m³)	Max. Outflow (L/s)	Total Outflow Volume (m³)
Manhole (1)			0.5	59.666
TOTAL	4.6	101.888	0.5	59.666

Graphs

Flow Graph



Volume Graph



END OF REPORT