SOAKHOLE DESCRIPTION:	Existing Soak Hole		
SOAKHOLE ID #:	**SHA**		
SOAKHOLE LOCATION:	10.0m rear boundary & 2.5m from left boundary		
TYPE OF LID:	Round steel		
SOAKHOLE DIAMETER:	1.2m		
DEPTH:	1.4m		
TYPE OF CONSTRUCTION:	Pre-cast concrete		
CLEAN:	**YES**		
CONCRETE BASE:	NO		
BOREHOLES:	**YES**	**NO & DIA:**	1 x 100mm
SYPHONS:	YES	**NO & DIA:**	1 x 100mm

SOAKHOLE TEST

TESTED BY:	Water Truck		
PRE-SOAK:	**10 MINS**		
LITRES TO FILL CHAMBER:	-		
METRE START:	18,099.10		
METRE FINISH:	18,108.80		
TOTAL LITRES:	9,700L	**OVER 10 MINS:**	**16.1L/sec**
		Full Delivery Flow	

NOTES: New syphon installed

RECOMMENDATION:

Flow test result is only relevant to the actual time of testing.

Ph: 09 294 6181 email: info@intorock.co.nz
www.intorockdrilling.co.nz PO Box 79 Drury 2247

truck was carried out for over a 10-minute test period,returning a flow rate of 16.1 L/s. The existing soakhole capacity is summarised in Table 3.

5.2 New Soakage Investigation

S&RC carried out an onsite soakage investigation on 7 October 2020, which comprised drilling and flow testing of two percussion borehole (SH01 & SH02). SH01 is located on the existing driveway and SH02 is located between the sleepout and the northern site boundary.

Percussion drilling and flow testing was carried out by Intorock Drilling Ltd using a 100mm diameter percussion drill. Basalt rock of variable competence (i.e. layered fractured and high broken lenses) was encountered in both locations. Both boreholes terminated within fractured basalt rock. The testing location is shown on the attached *Investigation Plan* (Drawing No. 20425/1; Appendix D). It should be noted that the lithologic description contained in the attached log is inferred only as no core is retrieved and logging is based on the cuttings returned to the surface, drill bounce, rate of penetration and air loss while drilling. Consequently, ground conditions may vary slightly from the percussion logs given in this report.

Both boreholes were pre-soaked for 10 minutes. Constant head flow testing using a water truck was carried out for both boreholes for over a 10-minute test period.

The flow testing results were used to determine the boreholes capacity and the maximum areas that can be served by the boreholes using Worksheet 2 & Worksheet 4 of Technical Report 2013/040 (TR2013/040; "Stormwater Disposal via Soakage in the Auckland Region"). All calculations for stormwater devices and worksheets are attached in Appendix B. Drilling & test results and borehole capacities are summarised in Table 3.

Table 3: Summary of Soakage Borehole Capacity

Borehole	Drilling Depth (m)	Groundwater (m)	Constant Head Flow Rate	Capacity of Rock-bore (L/s)[1]	Maximum Area that can be Served by Rock-bore (m²)[2]
EX SH	-	-	16.1	12.38	675.5
SH01	10	8.9	12.5	9.62	524.5
SH02	10	NE	12.8	9.85	537.1

Table Notes: NE: Not Encountered

Depth is metres (m) below present ground level (bpgl)

[1] Determined from Worksheet 2 attached in Appendix D

[2] Determined from Worksheet 4 attached in Appendix D