

Lot 17, The Perch Subdivision White Hills

Site Classification
for
JLEJ Investments

Report 18C 0616
September, 2018

Lot 17, The Perch Subdivision, White Hills

Site Classification for JLEJ Investments

Revision

Revision	Date	Authorised
18C 0616 (Lot 17)	24/09/18	SEH

Distribution (this revision only)

Recipient	Format	Date
GTSS	On file	24/09/18
JELJ Investments Attn: Jason Fehring	Email PDF jason.fehring@spiire.com.au	24/09/18

1 INTRODUCTION

JLEJ Investments commissioned Geotechnical Testing Services to conduct a geotechnical investigation for the proposed residential development located at Lot 17, The Perch Subdivision, White Hills.

The investigation has been conducted for the purpose of assessing general subsurface conditions at the site and consequently assigning a Site Classification in accordance with AS2870 – 2011 “Residential Slabs and Footings”.

2 INVESTIGATION

The investigation was conducted by a technician on the 24th of September, 2018 using a vehicle mounted drill-rig and drilling 3 boreholes to depths of 1.5 metres within the designated area. The subsequent soil profiles are presented in page 6 and the location of the boreholes are presented on page 7.

At the time of this investigation, the type of development proposed is unknown to GTS.

3 SITE CONDITIONS

The site has a slight fall to the left as looking from the road and is currently vacant. At the time of the investigation the surface of the site was moist with a sparse covering of natural grass. There is a large tree present along the road reserve. There was no visual evidence of surface rock or groundwater seepage over the investigated depths.

Full details of soil conditions are presented in the borehole logs.

4 SITE CLASSIFICATION

After allowing due consideration to the site geology, soil conditions, the presence of trees, drainage and known details of the proposed structure, the site has been classified as **Class P** (AS2870 – 2011) due to uncontrolled fill in excess of 0.4 metres being found during the investigation.

If the footings extend through the fill into the undisturbed material, they may be designed in accordance with a Class M-D classification.

Foundations designed in accordance with this classification are to be subject to the overriding conditions of Section 5 below.

5 DISCUSSION

Particular attention should be paid to the design of footings as required by AS2870 – 2011.

In addition to the normal founding requirements arising from the above classification, particular conditions at the site dictate that the founding medium and minimum depth below existing surface levels for all footings should be as follows:

- Gravelly Silty CLAY, low plasticity, off white, stiff
At depth below 0.4 metres in the region of BH2
- SILTSTONE, extremely weathered, pale brown, off white, soft
At depths varying from below 0.2 metres in the region of BH3, to 0.8 metres in the region of BH1

An allowable bearing pressure of 100kPa is available for edge beams, strips and stump footings founded as above. All foundations should extend a minimum of 100mm into the above founding material.

Due to the depth of footings required, blinding concrete (minimum strength 15MPa) may be used to bring the footing excavation up to design levels for a stiffened raft slab. Alternately, bored piers may be used for a waffle raft slab.

The proposed dwelling should be located a minimum distance of 1 x the mature height of all trees. This distance can be increased by 50 % for groups or lines of trees. If this distance is impeded then the size and distance from the dwelling of the tree(s) needs to be taken into account when designing the foundation.

6 IMPORTANT NOTES ABOUT THIS REPORT

- The site classification presented in Section 4 assumes that the current natural drainage and infiltration conditions at the site will not be markedly affected by the proposed site development work. Care should therefore be taken to ensure that surface water is not permitted to collect adjacent to the structure and that significant changes to seasonal soil moisture equilibria do not develop as a result of service trench construction or tree root action.
- Attention is drawn to Appendix B of AS 2870 and CSIRO document, BTF 18 – “Foundation Maintenance and Footing Performance: A Homeowner’s Guide” as a guide to maintenance requirement for the proposed structure.

- This is not a comprehensive investigation nor is it economic or practical to determine every subsurface feature on the site. Although this investigation indicates that soil conditions are relatively uniform across the site, it is recommended that the base of all footing excavations be inspected to ensure that the founding medium meets that requirements referenced herein with respect to type and strength of founding materials. If further variations in descriptions in soil types, colour or depths are discovered during construction, this office should be notified immediately so that potential influence on the footings may be assessed.
- The soil colours provided in the borelogs attached may vary with soil moisture content and individual interpretation, therefore colour alone should not be used to identify these soils.
- Strength characteristics of soils often exhibit a large variation between wet and dry conditions. Soil characteristics of a soil profile are given on the soil conditions at the time of the investigation.
- In the event of significant earthworks being undertaken on the site after this investigation, this report may require an amendment if appropriate.
- If FILL is found during this investigation, it is an indication of what was found during the investigation and it may vary over the site. It may be in the best interest of the buyer / seller to undertake a more detailed investigation, in this instance.

Should you have any further queries concerning these results, please do not hesitate in contacting this office on 5441 4881



Shane Hampton BE (Hons)
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Enclosed
Borehole Logs (Page 6)
Site Map (Page 7)

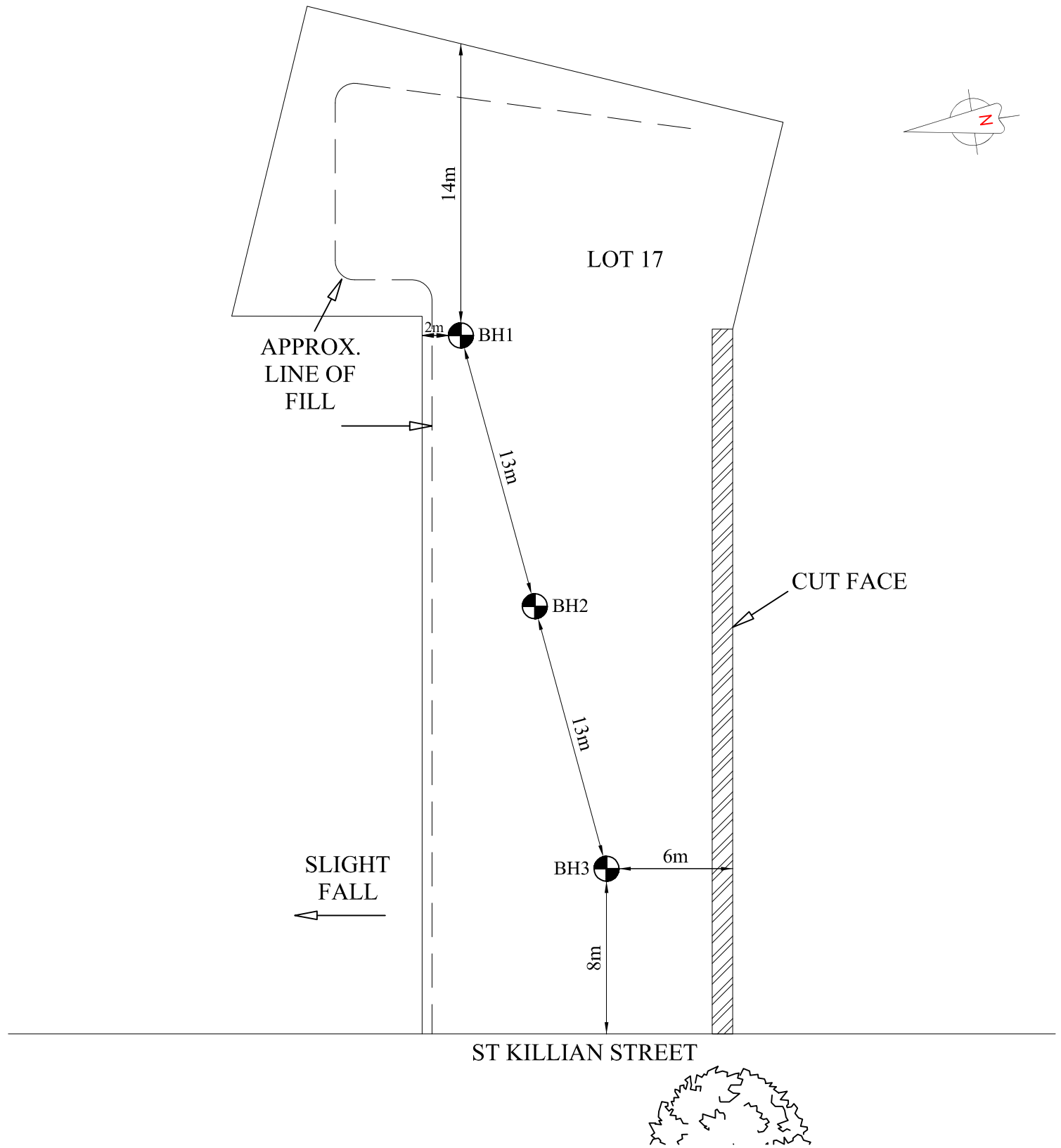
Borehole Logs

Client:	JLEJ Investments	Borehole Log No.:	1-3
		Report Number:	18C 0616
		Date Drilled:	24/09/18
Project:	Lot 17, The Perch Subdivision	Logged By:	TP
		Drilling Method	AS

Profile (mm):	* Structure: (see key)	Material Description:	Moisture Description:	Cohesion Density:	Plasticity:	Testing / Sampling:
0 To 100	Fill	BH1 Gravelly Sandy SILT Dark brown	D	L	-	
To 800		Gravelly Silty CLAY Brown, pale brown	D	St	Low	
To 1500	Rock	SILTSTONE Extremely weathered, pale brown	D	Soft Rock	-	
0 To 100	Fill	BH2 Gravelly Sandy SILT Dark brown	D	L	-	
To 400		Gravelly Silty CLAY Brown, pale brown, off white	M	St	Low	
To 700	Soil Profile	Gravelly Silty CLAY Off white	M	St	Low	
To 1500	Rock	SILTSTONE Off white	D	Soft Rock	-	
0 To 200	Fill	BH3 Gravelly Sandy SILT Dark brown	D	L	-	
To 1500	Rock	SILTSTONE Pale brown	D	St	Low	

Key:

Drilling Method:	Moisture Condition	Cohesion:	Density:	Testing/Sampling:
AS - Auger Screwing	D - Dry	VS - Very Soft	VL - Very Loose	PP – Pocket Penetrometer
HA - Hand Auger	M - Moist	S - Soft	L - Loose	V – Hand Vane Sheer
	W - Wet	F - Firm	MD - Medium Dense	DCP – Dynamic Cone Penetrometer
		ST - Stiff	D - Dense	SPT – Standard Penetration Test
		VST - Very Stiff	VD - Very Dense	US – Undisturbed Sampling
		H - Hard		DS – Disturbed Sampling
		VH – Very hard		* See notes on borelog location page



GEOTECHNICAL INVESTIGATION

CLIENT: JLEJ INVESTMENTS
PROJECT: LOT 17 THE PERCH SUBDIVISION, WHITE HILLS

APPROXIMATE LOCATIONS NOT TO SCALE

GTS REF: 18C 0616

DATE: 25 SEPTEMBER 2018