

## SITE CLASSIFICATION

**Client:** MG Estates Pty Ltd  
c/- Terraco  
PO Box 5077  
Bendigo, VIC 3550

**Project:** Lot 6 Illoura Place, Strathfieldsaye

### 1 INTRODUCTION

MG Estates Pty Ltd commissioned Geotechnical Testing Services to conduct a geotechnical investigation for a proposed residential development located at Lot 6 Illoura Place, Strathfieldsaye.

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 carried out by a technician on the 15<sup>th</sup> September, 2011 using a vehicle mounted drill-rig and drilling 2 boreholes to depths of 1.5 to 3.0 metres within the designated area. The subsequent soil profiles are presented in page 4 and the location of the boreholes are presented on page 5.

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

### 3 SITE CONDITIONS

There is a slight fall across the site and is currently vacant. The surface of the site was dry with no ground covering. There are no trees present on the site. There was no visual evidence of surface cracking. No groundwater seepage was encountered over the investigated depths.

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

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#### **4 SITE CLASSIFICATION**

After allowing due consideration to the site geology, soil conditions, drainage and known details of the proposed structure, the site has been classified as follows:

If foundations extend through the fill into the natural clay or sand, the footings may be designed in accordance with **Class M-D** (AS2870 – 2011).

However, in strict accordance with the standard, the site would be classified as Class P due to the shallow fill deposits.

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:

- Silty SAND, moist, pale brown, medium dense  
At depths below 0.6 metres in the vicinity of BH1 and 0.4 metres in the vicinity of BH2

An allowable bearing pressure of 100kPa is available for edge beams, strips and stump footings founded as above.

It is recommended that blinding concrete (minimum 15MPa strength) be used to bring the footing excavation up to design levels.

It should be noted that a small trench (approximately 1m Deep x 1m Wide) has been back filled along the rear of the site. The backfill of the trench has been done under controlled conditions (tested and certified by GTS – Reference 11C 946). The backfill material consisted of a quarry product (crushed rock, grey). If foundations extend into this area they can be placed at a minimum of 0.2 metres into the crushed rock for an allowable bearing capacity of 100kPa.

The proposed dwelling should be located a minimum distance of 1 x the mature height of any existing 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.

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

Yours faithfully



Daniel Curtain BE  
Geotechnical Engineer

Enclosed

Borelogs (Page 4)

Brief Site Map (Page 5)

**Test Report**
**Borehole Logs**

Client:	MG Estates Pty Ltd	Borehole Log No.:	1 - 2
		Report Number:	11C 945(6)
		Date Drilled:	15/09/11
Project:	Lot 6 Illoura Place Strathfieldsaye	Logged By:	RC
		Drilling Method	AS
		Sheet 4 of 5	

Profile (mm):	* Structure: (see key)	Material Description:	Moisture Description:	Cohesion Density:	Plasticity:	Testing / Sampling:
0 to 500 to 700 to 1000 to 1800 to 3000	Fill	BL-1 Sandy Silt Dark Brown	M	MD	-	DCP: 4,3,4,4,7
		Silty Sand Pale Brown	M	MD	-	DCP: 8,5,
	Soil Profile	Silty Clay Red Brown	M	ST	M	DCP: 7
		Sandy Clay Pale Brown	M	ST	L-M	No
		Sandy Clay Brown	M	ST	L	No
0 to 300 to 500 to 1000 to 1500	Fill	BL-2 Sandy Silt Dark Brown	M	MD	-	No
		Silty Sand Pale Brown	M	MD	-	No
	Soil Profile	Silty Clay Red Brown	M	VST	M	No
		Sandy Clay Brown	M	ST	L	No

**Key:**

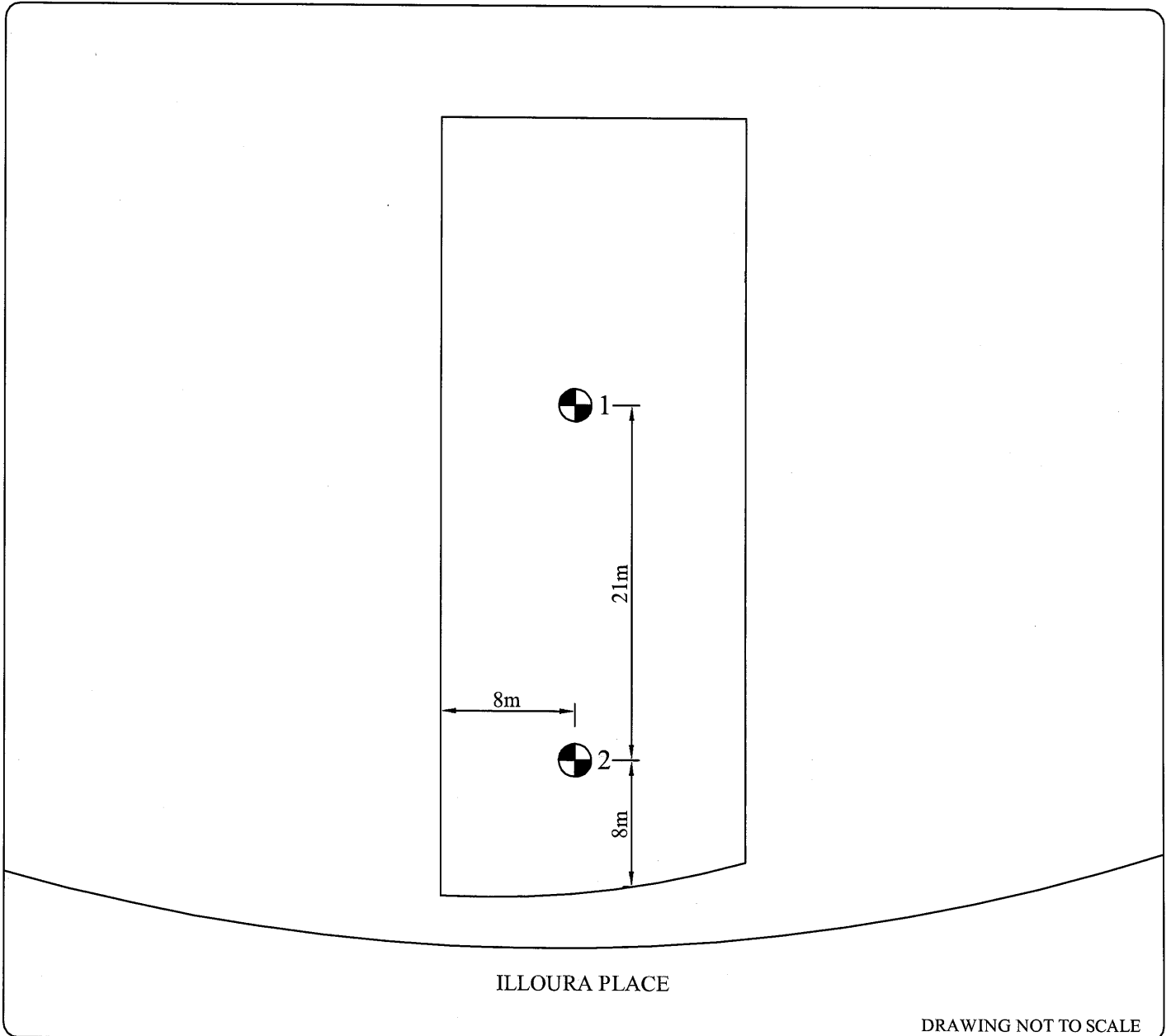
Drilling Method:	Moisture Condition	Cohesion:	Density:	Testing/Sampling:
AS - Auger Screwing	D - Dry	VS - Very Soft	VL - Very Loose	PP - Pocket Penetrometer
HA - Hand Auger	M - Moist	S - Soft	L - Loose	V - Hand Vane Shear
	W - Wet	F - Firm	MD - Medium Dense	DCP - Dynamic Cone Penetrometer
		ST - Stiff	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 (last).

**Borehole Locations**

**GEOTECHNICAL**  
TESTING SERVICES PTY LTD

Client :	MG ESTATES PTY LTD
Project:	LOT 6 ILLOURA PLACE STRATHFIELDSAYE

Borehole No. :	1 - 2
Report No. :	11C 945(6)
Date Drilled :	15/09/11
Operator:	RC
Drilling Method:	A.S
Page No.:	5 of 5



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