

## **SITE CLASSIFICATION**

**Client:** Dunlop & Pitson Earthmoving  
24 Jewell Court  
Bendigo, VIC 3550

**Project:** Lot 65 Evergreen Links, Eaglehawk

### **1 INTRODUCTION**

Dunlop & Pitson Earthmoving commissioned Geotechnical Testing Services to conduct a geotechnical investigation for a proposed residential development located at Lot 65 Evergreen Links, Eaglehawk.

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 9<sup>th</sup> May, 2011 using a vehicle mounted drill-rig and drilling 2 boreholes to depth of 1.0 to 1.5 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 residential development proposed was unknown to GTS.

### **3 SITE CONDITIONS**

There is a slight fall towards the front of the site and is currently vacant. The surface of the site was dry with no ground covering. 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, and that the fill has been placed under controlled conditions (tested and certified by GTS – Reference 11C 486) the site is classified as **Class M** (AS2870-2011).

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:

- **Controlled Fill: Gravelly Silty CLAY, low plasticity, dry, brown, stiff**  
At depths below 0.1 metres

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

#### **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.

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

Yours faithfully



Shane Hampton BE (Hons)  
Senior Geotechnical Engineer

Enclosed

Borelogs (Page 4)

Brief Site Map (Page 5)

**GTS****GEOTECHNICAL**  
TESTING SERVICES PTY LTD**Test Report****Borehole Logs**

|          |                                     |                   |          |
|----------|-------------------------------------|-------------------|----------|
| Client:  | Dunlop and Pitson                   | Borehole Log No.: | 1 - 2    |
|          |                                     | Report Number:    | 11C 474  |
|          |                                     | Date Drilled:     | 09/05/11 |
| Project: | Lot 65 Evergreen Links<br>Eaglehawk | Logged By:        | MB       |
|          |                                     | Drilling Method   | AS       |
|          |                                     | Sheet 4 of 5      |          |

| Profile (mm):                              | * Structure: (see key) | Material Description:                       | Moisture Description: | Cohesion Density: | Plasticity: | Testing / Sampling: |
|--|------------------------|---|-----------------------|-------------------|-------------|---------------------|
| 0<br>to<br>300<br>to<br>1000<br>to<br>1500 | Controlled Fill        | BL-1<br>Gravelly Silty Clay<br>Brown        | D                     | ST                | L           | No                  |
|  | Soil Profile           | Silty Clay<br>Brown                         | M                     | ST                | M           | No                  |
|  | Rock                   | Extremely Weathered Siltstone<br>Pale Brown | D                     | H                 | -           | No                  |
| 0<br>to<br>300<br>to<br>800<br>to<br>1000  | Controlled Fill        | BL-2<br>Gravelly Silty Clay<br>Brown        | D                     | ST                | L           | No                  |
|  | Soil Profile           | Silty Clay<br>Brown                         | M                     | ST                | M           | No                  |
|  | Rock                   | Extremely Weathered Siltstone<br>Pale Brown | D                     | H                 | -           | No                  |

**Key:**

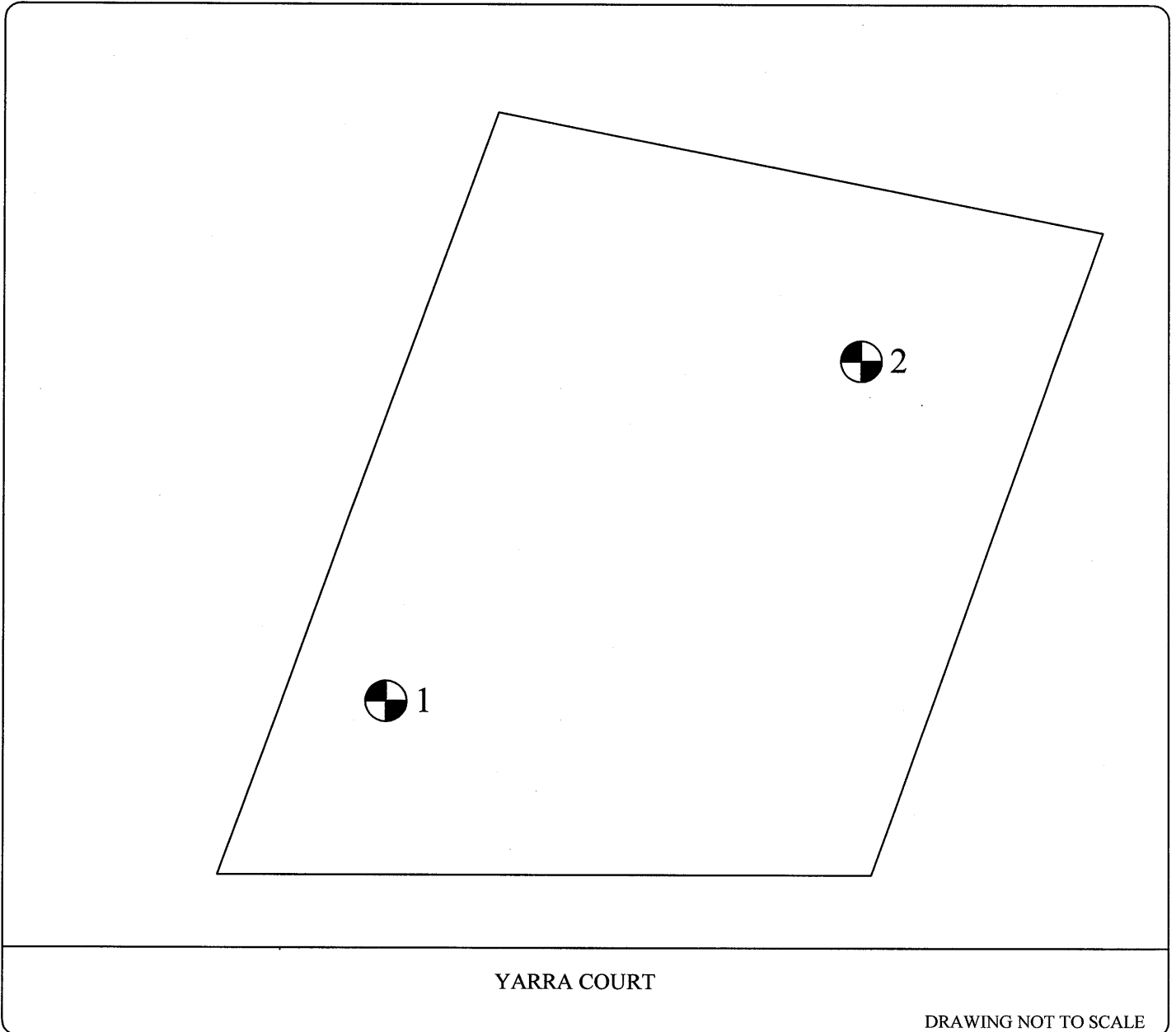
| Drilling Method:    | Moisture Condition | Cohesion:        | Density:          | Testing/Sampling:                            |
|---------------------|--------------------|------------------|-------------------|--|
| AS - Auger Screwing | D - Dry            | VS - Very Soft   | VL - Very Loose   | PP - Pocket Penetrometer                     |
| HA - Hand Auger     | M - Moist          | S - Soft         | L - Loose         | V - Hand Vane 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 (last). |

**Borehole Locations**

**GEOTECHNICAL**  
TESTING SERVICES PTY LTD

|          |                                     |
|----------|-------------------------------------|
| Client : | DUNLOP AND PITSON                   |
| Project: | LOT 65 EVERGREEN LINKS<br>EAGLEHAWK |

|                  |          |
|------------------|----------|
| Borehole No. :   | 1 & 2    |
| Report No. :     | 11C 474  |
| Date Drilled :   | 09/05/11 |
| Operator:        | MB       |
| Drilling Method: | A.S      |
| Page No.:        | 5 of 5   |



Ⓣ = TREES