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# GEOTECHNICAL SITE CLASSIFICATION LOT 137 FIVE FARMS ESTATE STAGE 1, CLYDE NORTH

Prepared for Frasers Property Australia c/- Beveridge Williams Pty Ltd

Report Reference: G4589.1

Date: 2 February 2022

ABN 31 105 704 078 13 Brock Street, Thomastown Victoria 3074 (P) +61 3 9464 4617 (F) +61 3 9464 4618



## **PROJECT DETAILS**

| Project Reference | G4589.1                   | Rev   | BK  |  |  |
|-------------------|---------------------------|-------|-----|--|--|
| Project Title     | Five Farms Estate Stage 1 |       |     |  |  |
| Project Location  | Clyde North               | State | VIC |  |  |
| Date              | 2 February 2022           |       |     |  |  |

## **CLIENT DETAILS**

| Prepared For (Client)      | Frasers Property Australia |        |           |  |  |  |
|----------------------------|----------------------------|--------|-----------|--|--|--|
| Prepared For (Facilitator) | Beveridge Williams Pty Ltd |        |           |  |  |  |
| Client Address             | Level 9, 484 St Kilda Road | Suburb | Melbourne |  |  |  |

## DISTRIBUTION

| Original Held By        | Ground Science Pty Ltd     |  |  |  |
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This document presents the results of the site classification conducted for the aforementioned project and is detailed for the sole use of the intended recipient. Should you have any questions related to this report please do not hesitate to contact the undersigned.

AUTHOR:

CDConully

Chris Connelly Engineering Geologist

**TECHNICAL REVIEW:** 

Gee Singh, MIEAust (NER) Senior Geotechnical Engineer

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#### 1. INTRODUCTION

This report presents the results of the geotechnical site classification investigation carried out by Ground Science at Lot 137, Five Farms Estate Stage 1 located in Clyde North, Victoria (the site). The scope of works detailed herein was commissioned by Beveridge Williams Pty Ltd (the facilitator) on behalf of Frasers Property Australia (the Client).

#### 2. PROJECT BACKGROUND & UNDERSTANDING

The project involved providing geotechnical site classifications for the allotments within Stage 1 of the Five Farms Estate residential development.

The residential development included the construction of building platforms as part of the bulk earthworks phase of the project, which primarily involved site cuts and placement of controlled fill. Controlled fill was placed and compacted to Level 1 procedures in general accordance with AS3798 (2007) 'Guidelines on Earthworks for Residential and Commercial Developments'. A plan showing the approximate areas of fill and field density test locations is shown on Figure 2 in Appendix A. Ground Science were the nominated Geotechnical Inspection and Testing Authority for the Level 1 filling works within this stage of the estate (report reference: GS5860.1 AA dated 29<sup>th</sup> September 2021).

The professional advice provided in this report is based on the information provided at the time of the report preparation and may not be valid if changes are made to the site, the development proposal, or the construction methods. In the event of such changes, further advice should be sought from Ground Science.

#### 3. PROJECT AIMS

The aims of the investigation were as follows:

- To assess the subsurface conditions at the site relevant to the proposed development through a desktop regional geological study;
- To recover soil samples for laboratory analysis (representative soil samples spread across Stage 1);
- To log the soils as per the guidelines presented in AS1726 (2017) 'Geotechnical Site Investigations';
- To classify the site in accordance with AS2870 (2011) 'Residential Slabs and Footings';
- To calculate the characteristic surface movement (Y<sub>S</sub>) for the site;
- To provide advice on allowable bearing pressures and geotechnical parameters for the design of footing systems;
- To provide general construction advice.

#### 4. FIELDWORK

The fieldwork was completed on the 9<sup>th</sup> and 13<sup>th</sup> of December 2021 which involved the drilling of 23 boreholes at the locations shown on Figure 3 in Appendix A. The boreholes were drilled using an ATS or GT10 drilling rig supplied and operated by Ground Science. The boreholes were advanced to a target depth of 2.0m below the surface level.

Details of the subsurface conditions encountered within the boreholes are presented in the engineering borehole logs in Appendix B. The fieldwork was conducted by a geotechnical engineer from Ground Science who located the boreholes, recovered soil samples, operated the drilling rig and prepared the engineering borehole logs. The laboratory testing was undertaken in Ground Science's NATA accredited laboratory in Thomastown, Victoria.



#### 5. RESULTS

#### 5.1 REGIONAL GEOLOGICAL CONDITIONS

An understanding of the regional geological conditions was undertaken through the review of the Geological Survey maps of Victoria, which indicates the site to be underlain by Miocene to Pliocene aged 'Red Bluff Sandstone' deposits, with Pleistocene to Holocene aged alluvial deposits indicated to exist to the west and south/west. This assessment excludes any fill or foreign material, with controlled (engineered) fill noted to have been placed on the allotments. The regional geological conditions are presented in Figure 2:



Figure 2: Regional Geological Conditions

#### 5.2 SURFACE CONDITIONS

The site is located south-west of Pound Road and south of Hardys Road and situated north and east of existing greenfields that are yet to be developed. At the time of our investigation, the site was observed to be generally flat with poor to fair drainage conditions noted. The surface of the allotments was dry and generally comprised barren soil. The site was generally trafficable to a 4WD mounted drilling rig with occasional large soil stockpiles noted across the site. No trees were observed to be located within close proximity to the building envelopes.

#### 5.3 SUBSURFACE CONDITIONS

The subsurface soil profile encountered during the field investigation is considered to be generally consistent with our expectations of the site. The subsurface soils generally comprised controlled fill (Sandy CLAY (CL-CH), low to high plasticity, brown mottled orange/grey/red, stiff to very stiff and moist, approximately equal to the Plastic Limit) overlying natural occurring inferred alluvial deposits (comprising Silty SAND (SM), fine to coarse grained, grey, loose to medium dense and moist) or inferred 'Red Bluff Sandstone' residual soils (comprising Silty/Sandy CLAY (CI-CH), medium to high plasticity, grey mottled orange/brown or brown mottled orange/grey red, stiff to very stiff and moist, approximately equal to the Plastic Limit).

As observed during the Level 1 filling phase, controlled fill generally present within all allotments in the site (refer to Figure 2 in Appendix A).

#### 5.4 GROUNDWATER

Groundwater was not encountered during the borehole drilling. The Visualising Victoria's Groundwater dataset indicates the regional groundwater table to exist at a depth of less than 5.0m below surface level. During wet



seasons or following torrential rainfalls, there is a possibility for a perched water table to develop in the area. This should be carefully considered during the construction stage, especially when footing excavations are left exposed or prior to topsoil application.

#### 5.5 LABORATORY TESTING

Representative soil samples of natural clay soils and controlled fill materials were collected from nominated borehole locations for Shrink/Swell Index tests and Atterberg Limits tests. It is considered the soil samples generally represent the soil conditions at the time of testing. Laboratory test reports are presented in Appendix C and a summary of the laboratory test results are present in Table 1:

| Sample #   | Borehole | Depth (m)  | Soil Unit | Liquid Limit<br>(%) | Plasticity<br>Index (%) | Shrink Swell<br>Index Iss (%) |
|------------|----------|------------|-----------|---------------------|-------------------------|-------------------------------|
| S1         | BH2      | 0.5 - 1.0  | Fill      | -                   | -                       | 1.1                           |
| S2         | BH6      | 1.0 - 1.4  | Natural   | -                   | -                       | 4.0                           |
| S3         | BH9      | 1.0 - 1.3  | Natural   | -                   | -                       | 3.5                           |
| S4         | BH13     | 0.5 - 0.75 | Fill      | 34                  | 22                      | -                             |
| S5         | BH16     | 0.5 - 0.9  | Fill      | -                   | -                       | 3.2                           |
| <b>S</b> 7 | BH20     | 1.0 - 1.5  | Fill      | 38                  | 20                      | -                             |

#### Table 1: Laboratory Test Results Summary

The laboratory test results indicate the fill to comprise low to medium plasticity material, with a Shrink/Swell Index of 1.1%. The naturally occurring materials recorded Shrink/Swell values ranging between 3.5% and 4.0%.



#### 6. DISCUSSION & RECOMMENDATIONS

#### 6.1 PRELIMINARY AS2870-2011 SITE CLASSIFICATION

The site has been classified in general accordance with the guidelines presented in AS2870-2011 'Residential Slabs and Footings'.

The following site characteristics were adopted in the site classification assessment:

#### **Table 2: Site Characteristics**

| Climatic Zone                     | 2 (Figure D1 of AS2870-2011)                                       |
|-----------------------------------|--|
| Soil Profile Group                | Predominantly Group 3 (Table D1 of AS2870-2011) or Controlled Fill |
| Depth of Soil Suction Change (Hs) | 1.8m   |

Based on the results of the geotechnical investigation, the geological setting and the guidelines presented in AS2870-2011, the site has been classified as **Class H1**, with an assessed characteristic surface movement ( $y_s$ ) of between 40mm and 60mm.

According to the Building Code of Australia (BCA), the above classification is only applicable for building Class 1 to 10a. For other building types/loads, this classification should only be used as a guide.

It is recommended that precautions be taken to control moisture variations within the founding soils given the variable reactivity of subsurface soils, as follows:

- Restrict tree planting in the vicinity of the building. AS2870-2011 advises that trees be planted no closer to the building than a distance equal to 1.0 times their mature height on Class H1 sites. This distance should be increased where rows or groups of trees are involved;
- Provide paving to the edge of the building to limit soil moisture variations due to seasonal wetting and drying. The paved surface should be graded away from the building such that run-off drains away, and water cannot pond against the building;
- Service trenches, particularly plumbing and drainage, should be avoided beneath buildings. Where
  service trenches are to pass beneath or close to the building, they should be backfilled with a low
  permeability material, such as compacted clay, to prevent the ingress of water. The use of porous backfill
  materials should be avoided;
- Any leaking or damaged underground services should be repaired promptly; and
- During construction, footing excavations should not be left exposed to the weather for extended periods. Water should not be allowed to pond in these areas, nor should it be left unprotected to dry and crack in the sun.

#### 6.2 FOOTING DESIGN

#### Shallow/Spread Footings

It is considered that shallow footings suitably embedded within the controlled fill or naturally occurring sols may adopt an allowable bearing pressure of 100kPa, under stiff/medium dense (or better) and dry to damp conditions.

#### **Deep Footings**

Where deep footings such as bored piers are adopted, the footings shall be found 4 times the diameter of the pier foundation from the nominal ground level, and the below parameters may be adopted.

Allowable End Bearing Capacity (stiff/medium dense or better clay/sand): 200kPa



Allowable Skin Friction (stiff/medium dense or better clay/sand):

15kPa

No skin friction shall be adopted for downloads in fill soils or soils within 1200mm of surface level, however, are applicable for uplift load due to soil swelling. Alternatively, screw piles mat be considered and the loss of ground support due to soil shrinkage may be considered as  $0.5 \times H_{S}$  (1.8m) for this site during the design.

It should be noted that construction during wet/winter periods may experience a reduced bearing pressure, particularly if left exposed for periods of time. Where required, a reassessment of the applicable bearing pressures may be undertaken. Footings should not be founded within any fill, unless the fill has been placed as controlled fill in accordance with AS3798 (2007) 'Guidelines for Earthworks on Residential and Commercial Developments' if applicable.

#### 7. GENERAL RECOMMENDATIONS

#### 7.1 FOOTINGS

- It is recommended that all footing excavations be inspected by a geotechnical engineer from this office to confirm that the founding conditions are consistent with design recommendations. The footing size and the founding level may need to be adjusted if the required founding material is not encountered at the design founding level.
- To reduce soil moisture variations near the footings, the builder should compact clean soil (without rubble or organic matter) around the footings to reduce potential water ingress around the footings.
- To reduce, but not eliminate, the possibility of damage to the footing, tree planting should be restricted as indicated earlier in this report.
- Good drainage is important to footing performance. The Builder should prevent water accumulation near the building footings (even during construction). It is recommended that sufficient ground clearance be created to accommodate paving which slopes a minimum of 1:20 away from the building. This slope should be achieved by excavation and not by building up loose fill around the footings.
- The roof water should be diverted away from the footing as soon as the roof is constructed by using temporary pipes, if necessary. The surface water should also be provided by constructing surface gutters or grading the surface to divert the water away from the footing.
- During wet conditions, machinery traffic may disturb the subgrade soils and should be avoided in the area of the building
- Any proposed footings which are close to an easement, underground service trenches, and/or other excavations, (including those in adjoining properties) should be founded below a line projected up at 45° to the horizontal (for firm/stiff Clay) and measured from the nearest base of the easement excavations.
- Avoid excavations close to footings since those founded on sandy soils can experience settlements while those founded in clayey soils can also move due to the shrinking and swelling of the clay. Plumbers and drainers should follow all the recommendations made in AS 2870-2011 and other appropriate codes with respect to drainage works.
- Protection of the footing system from moisture ingress or moisture loss after construction is the responsibility of the homeowner.

#### 7.2 DRAINAGE DESIGN REQUIREMENTS (AS2870-2011)

• It should be noted that the building and site drainage design, as well as height of the floor level above the finished ground level, may be affected by factors other than structural design requirements, such as below:



- Run-off water and influence of local topography;
- Possibility of flooding;
- Effects of existing and post-construction landscaping;
- Level of the legal point of stormwater discharge;
- Plumbing and drainage requirements;
- Minimum height from finished ground level to the damp-proof course level;
- Termite management.
- Surface drainage shall be designed and constructed to avoid water ponding against or near the footing. The
  ground in the immediate vicinity of the perimeter footing, including the ground uphill from the slab on cut and fill
  sites shall be graded to fall 50mm minimum away from the footing over 1m and shaped to prevent ponding of
  water. Where the filling is placed adjacent to the building, the filling shall be compacted and graded to ensure
  drainage of water away from the building. The requirements of Clause 5.2.2 of AS2870 (2011) shall be applied
  to reduce the possibility of surface water entering living areas. Alternative drainage systems will be required on
  zero lot line construction. Any paving shall also be suitably sloped.
- The site classification as stated in this report shall be stated on any construction drawings. The selected footing system and any required site work and required site drainage shall be documented.

#### 7.3 SUBGRADE PREPARATION

- The subgrade should be stripped of all topsoil and soils containing significant organic matter.
- The exposed subgrade surface should be presented in a suitably moist condition and test rolled with several passes of an 8-10 tonne smooth drum roller. Any soft spots identified during test rolling should be removed by excavation and replaced with well-compacted suitable fill.
- Under no circumstances should any additional fill contain a significant amount of organic matter or be a mixture
  of greatly different particle sizes; e.g. it should not be a mixture of rock and soil, although less than 10% rock
  may be permitted.
- It is important that any fill be compacted close to its optimum moisture content during compaction.
- The compaction method and equipment should suit the fill material used and its degree of compaction should be tested and/or inspected by a suitably accredited NATA laboratory to meet the requirements of AS 3798-2007 "Guidelines on earthworks for commercial and residential developments".

#### 8. DISCLOSURE

This document is detailed for the sole use of the intended recipient(s) or its authorized representatives. Distribution of this report may be carried out at the Clients discretion and must be reproduced in full. Should you have any questions related to this report please do not hesitate to contact this office.

AUTHOR:

CDConully

Chris Connelly Engineering Geologist

**TECHNICAL REVIEW:** 

Gee Singh, MIEAust (NER) Senior Geotechnical Engineer



#### 9. LIMITATIONS

The advice provided in this document (as per our commission) is not designed or capable of identifying all soil conditions, (which can vary with products chosen). The advice given in this document is based on the assumption that the test results are representative of the overall soil conditions. However, it should be noted that actual conditions in some parts of the site might differ from those found. If further sampling/ testing reveals soil characteristics significantly different from those shown in our findings, Ground Science must be consulted.

The scope and the period of Ground Science services are described in the document and are subject to restrictions and limitations. Ground Science did not perform a complete assessment of all possible conditions or circumstances that may exist. If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Ground Science in regards to it.

Where data has been supplied by the client or a third party, it is assumed that the information is correct unless otherwise stated. No responsibility is accepted by Ground Science for incomplete or inaccurate data supplied by others.

It is recognized that the passage of time affects the information and assessment provided in this document. Ground Science's assessment is based on information that existed at the time of the preparation of this document. It is understood that the services provided allowed Ground Science to form no more than an opinion of the actual site conditions observed during sampling and observations of the site visit and cannot be used to assess the effects of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

Any drawings or figures presented in this report should be considered only as pictorial evidence of our work. Therefore, unless otherwise stated, any dimensions should not be used for accurate calculations or dimensioning.

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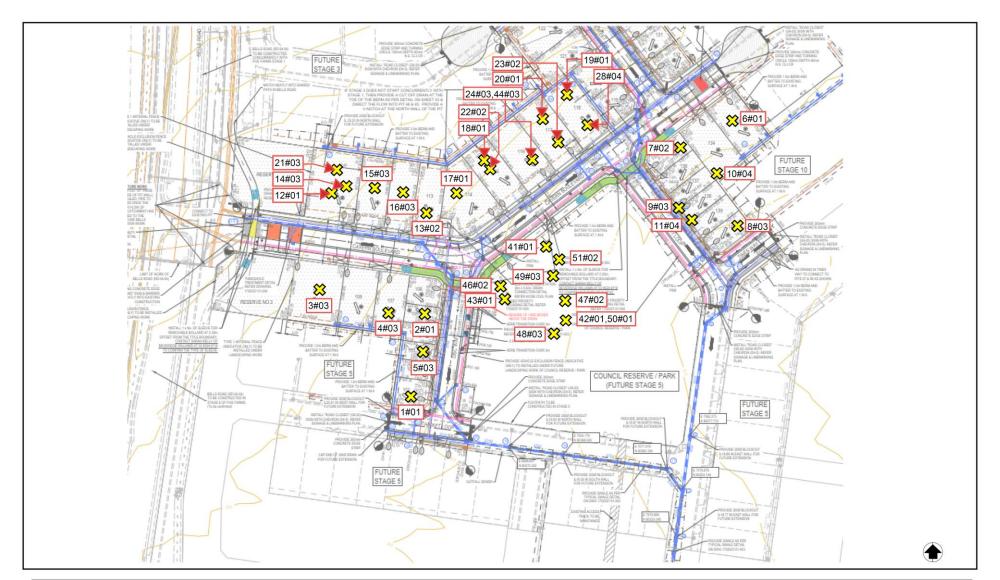


#### 10. REFERENCES

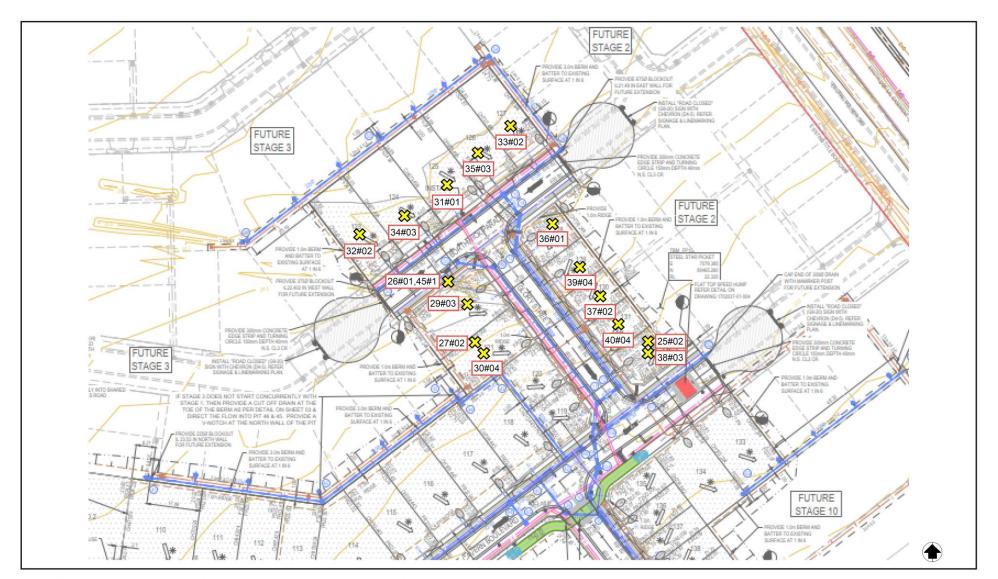
- Geological maps, Geological Survey of Victoria.
- AS2870 2011 Residential Slabs and Footings.
- AS3798 2007 Guidelines on Earthworks for Residential and Commercial Developments.
- AS1289 Testing of Soils for Engineering Purposes.
- AS1726 2017 Geotechnical Site Investigations.

## APPENDIX A

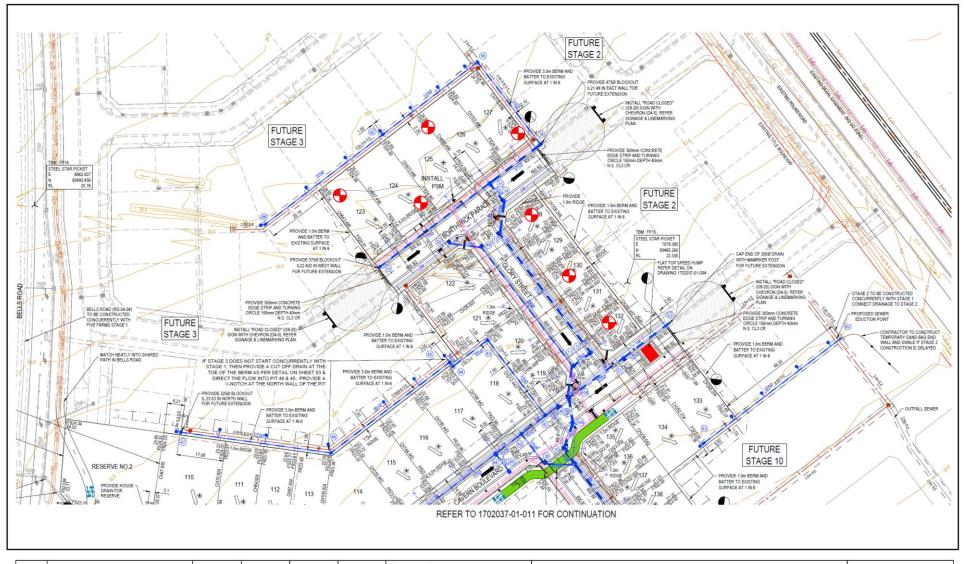
Site & Test Location Plans



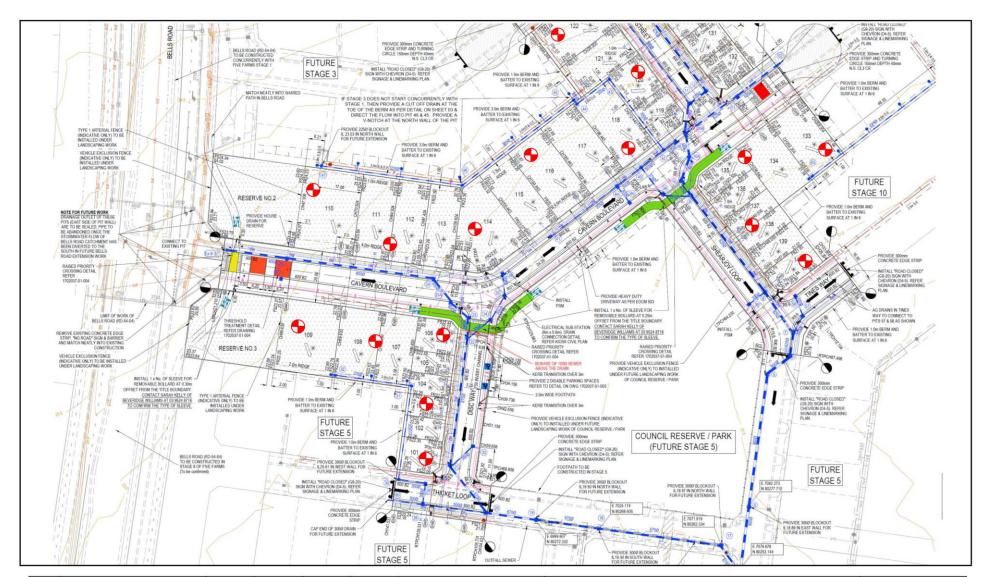
| Rev |                                  | Drawn | Date       | Checked | Scale | Legend                | FIVE FARMS - STAGE 1                     |               |
|-----|----------------------------------|-------|------------|---------|-------|-----------------------|--|---------------|
|     |                                  |       |            |         |       | Density Test Location |  |               |
|     |                                  |       |            |         |       | (#Layer number)       | CLYDE NORTH (LEVEL 1)                    |               |
|     |                                  |       |            |         |       |                       |  |               |
|     |                                  |       |            |         |       |                       | Prepared For: Frasers Property Australia |               |
| 0   | Figure 1: Density Test Locations | AM    | 21/09/2021 | GS      | NTS   |                       | Job No: GS5860.1 AA                      | GroundScience |



| Rev |                                  | Drawn | Date       | Checked | Scale | Legend                | FIVE FARMS - STAGE 1                     |               |
|-----|----------------------------------|-------|------------|---------|-------|-----------------------|--|---------------|
|     |                                  |       |            |         |       | Density Test Location |  |               |
|     |                                  |       |            |         |       | (#Layer number)       | CLYDE NORTH (LEVEL 1)                    |               |
|     |                                  |       | 6          |         |       |                       |  |               |
|     |                                  |       |            |         |       |                       | Prepared For: Frasers Property Australia | - 10.1        |
| 0   | Figure 2: Density Test Locations | AM    | 21/09/2021 | GS      | NTS   |                       | Job No: GS5860.1 AA                      | GroundScience |



| Rev |                                   | Drawn | Date     | Checked | Scale | Legend                     |  |               |
|-----|-----------------------------------|-------|----------|---------|-------|----------------------------|--|---------------|
|     |                                   |       |          |         |       | Proposed Borehole Location | STAGE 1 PROPOSED BOREHOLE LOCATIONS      |               |
|     |                                   |       |          |         |       | Thoposed Dorenoie Location | FIVE FARMS ESTATE, CLYDE NORTH           |               |
|     |                                   |       |          |         |       |                            |  |               |
|     |                                   |       |          |         |       |                            | Prepared For: Frasers Property Australia | - 10.1        |
| 0   | Figure 1 of 2: Proposed Boreholes | CC    | 13.09.21 |         | NTS   | $\mathbf{\Psi}$            | Job No: G4589.1                          | GroundScience |



| Rev |                                   | Drawn | Date     | Checked | Scale | Legend                     |  |                       |
|-----|-----------------------------------|-------|----------|---------|-------|----------------------------|--|-----------------------|
|     |                                   |       |          |         |       | Proposed Borehole Location | STAGE 1 PROPOSED BOREHOLE LOCATIONS      |                       |
|     |                                   |       |          |         |       |                            | FIVE FARMS ESTATE, CLYDE NORTH           |                       |
|     |                                   |       |          |         |       |                            |  |                       |
|     |                                   |       |          |         |       |                            | Prepared For: Frasers Property Australia | - 10.1                |
| 0   | Figure 2 of 2: Proposed Boreholes | CC    | 13.09.21 |         | NTS   | $\square$                  | Job No: G4589.1                          | <b>Ground</b> Science |

## APPENDIX B

Borehole Log Sheets

| Grou  | undScience  | ENGINEERING BOREHOLE LOG  | Borehole                                       | No        | BH1  |  |
|---|---|---|--|-----------|--|--|
|   |   |   | JOB No :                                       |           | G4589.1  |  |
|   | rty Group Pty Ltd<br>tate Site Classification - Stage 1               |   | TEST DAT                                       |           | 09-Dec-21<br>JSP                               |  |
| LOCATION: Clyde North<br>TEST LOCATION: Refer to site pl                        | an, Appendix A  |   | CHECKED  |           | CC<br>N/A                                      |  |
| DRILL METHOD: GT10 Drill Ri<br>HOLE DIAMETER: 100mm                             | g   | EASTING: ND<br>NORTHING: ND   | INCLINAT                                       |           | 90°<br>ND                                      |  |
| DRILLING  | SAMPLING  | FIELD MATERIAL DESCRIPTION  |  |           |  |  |
| C PENERTRATION<br>C RESISTANCE<br>WATER<br>DEPTH (metres)<br>DEPTH (RL)         | SAMPLE OR FIELD TEST<br>RECOVERED<br>GRAPHIC LOG<br>USC SYMBOL        | SOIL / ROCK MATERIAL DESCRIPTION  | CONSISTENCY<br>DENSITY                         | MOISTURE  | ADDITIONAL OBSERVATIONS                        |  |
| 0.0   |   | FILL: sitly SAND, fine to medium grained, angular to subangular, pale brown, low plasticity sitl, trace rootlets<br>FILL: sandy CLAY, medium to high plasticity, brown mottled orange/grey, fine to coarse grained, angular to subangular   | L<br>St - VSt                                  | M<br>w≈PL | Controlled Fill                                |  |
| 0.05<br>0.5<br>0.5<br>0.5<br>0.50<br>0.75<br>0.75<br>1.70<br>1.70               | CH  | PLU: sandy CLAY, medium to high plasticity, brown motified orange/grey, the to coarse grained, angular to subangular sand, with silt<br>brown, trace gravel<br>silly CLAY, medium to high plasticity, brown motified orange/grey/red, with sand<br>sandy CLAY, high plasticity, brown motified orange/grey/red, with sand   | VSt  | W = PL    | Inferred Red Bluff Sandistone Residual<br>Soil |  |
| 20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>20<br>2 | CONSISTENCY<br>Vs Very Soft<br>S Soft<br>F Firm<br>St Stiff<br>H Hard | DENSITY       MOISTURE CONDITION       TEST NOTES         Fb       Friable       D       Dry       PP       Pocket Penetrom         VL       Very Loose       M       Moist       U50       Undisturbed Sam         VL       Very Loose       M       Moist       U50       Undisturbed Sam         D       Dense       w ≈ PL Moist, dry of plastic limit       D       Disturbed Sam         VD       Very Dense       w ≈ PL Moist, wet of plastic limit       E       Environmental se         VD       Very Dense       w ≈ LL Wet, near plastic limit       E       Environmental se         VD       Very Dense       w ≈ LL Wet, wet of flauid limit       HSV       Hand Shear Van         w > LL Wet, wet of flauid limit       W SVL Wet, wet of flauid limit       HSV       Hand Shear Van | iple 50mm<br>iple 63mm<br>e<br>imple<br>e test | ו         | Groundwater Level<br>UTP Unable to Penetrate   |  |

| U  |                 |                   | Gro                         | oundSo  | cien  | )CE                                    |       | ENGINEERING BOREHOLE LOO   | G  | Borehole<br>JOB No :                      |              | BH2<br>G4589.1                | 3<br>•                                 |   |
|--|-----------------|-------------------|-----------------------------|---|---|--|-------|--|--|---|--------------|-------------------------------|--|---|
| CLIENT:<br>PROJECT:<br>LOCATION:<br>TEST LOCAT |                 | F                 | Five Farms E<br>Clyde North | perty Group Pty Ltd<br>Estate Site Classifica<br>plan, Appendix A |   | je 1                                   |       |  |  | TEST DAT<br>LOGGED<br>CHECKED<br>VANE SHI | BY:<br>D BY: | 09-Dec-21<br>JSP<br>CC<br>N/A |  |   |
| DRILL METH                                     | HOD:            |                   | GT10 Drill R<br>100mm       |   |   |  |       | EASTING: ND<br>NORTHING: ND  |  | INCLINAT                                  | TION:        | 90°<br>ND                     |  |   |
|  |                 | LLING             |                             | SAMPLIN   | NG  | F                                      | _     | FIELD MATERIAL DESCR   |  |   | 1            | Т                             |  |   |
| L PENERTRATION<br>C RESISTANCE                 | 4 WATER         |                   | DEPTH (RL)                  | SAMPLE OR FIELD TEST  |   | GRAPHIC LOG                            |       | SOIL / ROCK MATERIAL DESCRIPTION   |  | CONSISTENCY<br>DENSITY                    | MOISTURE     |                               | ITIONAL OBSERVATIONS                   | 3 |
|  | Ī               | 0.0               |                             |   |   |  | SM    | FILL: silly SAND, fine to medium grained, angular to subangular, pale brown, low plasticity silt, trace roc  | iotiets  | L   | M            |                               | Controlled Fill                        |   |
|  |                 | 0.5               | 0.30                        |   |   |  | CI-CH | FILL: sandy CLAY, medium to high plasticity, brown mottled orange/grey, fine to coarse grained, angula<br>sand, with silt, trace gravel  | ar to subangular   | St - VSt                                  | w ≈ PL       | -                             |  |   |
|  |                 |                   |                             |   |   |  | ~~~~~ |  |  |   |              |                               |  |   |
|  |                 | 1.0               | 1.10                        |   |   |  | СН    | sandy CLAY, medium to high plasticity, brown mottled orange/grey/red, fine to coarse grained, angular<br>sand, with silt, trace gravel   | r to subangular  | VSt                                       |              | Inferred Red                  | l Bluff Sandstone Residual<br>Soil     |   |
|  |                 | 1.5               |                             |   |   | NAXXXXXXXX                             |       |  |  |   |              |                               |  |   |
|  | Not Encountered |                   |                             |   |   | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |       |  |  |   |              |                               |  | - |
|  |                 | 2.0               | 2.00                        |   |   |  |       | Borehole Terminated @ 2m   |  |   |              |                               |  |   |
|  |                 | 2.5               |                             |   |   |  |       |  |  |   |              |                               |  |   |
|  |                 |                   |                             |   |   |  |       |  |  |   |              |                               |  |   |
|  |                 | 3.0               |                             |   |   |  |       |  |  |   |              |                               |  |   |
|  |                 | 3.5               | -                           |   |   |  |       |  |  |   |              |                               |  | - |
| PENETRATIC                                     |                 | 3 4<br>1          | 5                           | CONSISTENCY<br>Vs<br>F<br>St<br>VSt<br>H                          | Very<br>Soft<br>Firm<br>Stiff<br>Very<br>Hard | n<br>y Stiff                           |       | VL         Very Loose         M         Moist         U50         Un           L         Loose         W         Wet         U63         Un           MD         Medium Dense         w < PL Moist, dry of plastic limit | ocket Penetrome<br>Indisturbed Samp<br>Indisturbed Sample<br>isturbed Sample<br>ulk Sample<br>nvironmental sar | ple 50mm<br>ple 63mm<br>e<br>mple         | n            |                               | roundwater Level<br>nable to Penetrate |   |
|  |                 | refi<br>_6.0 2019 | efusal                      |   |   |  |       | w ≈ LL Wet, near liquid limit HSV Ha   | and Shear Vane   | e test                                    | <u> </u>     |                               | Sheet 1 of 1                           | 1 |

|                    |              |                 |                | Gro                            | undSc  | ien           | Ce                                     |            | ENGIN  | EERING BOREHO  | LE LOG                                    | Borehole               | No       | BH3                                       |    |
|--------------------|--------------|-----------------|----------------|--------------------------------|--|---------------|--|------------|--|--|---|------------------------|----------|---|----|
|                    |              |                 |                |                                |  |               |  | ,          |  |  |   | JOB No :               |          | G4589.1                                   |    |
| CLIENT:<br>PROJEC  |              |                 |                |                                | perty Group Pty Ltd<br>Estate Site Classificat | tion - Stag   | e 1                                    |            |  |  |   | TEST DAT               |          | 09-Dec-21<br>JSP                          |    |
| LOCATIO<br>TEST LO |              | DN:             |                | Clyde North<br>Refer to site p | plan, Appendix A                               |               |  |            |  |  |   | CHECKEE                |          | CC<br>N/A                                 |    |
| DRILL M<br>HOLE D  |              |                 |                | GT10 Drill F<br>100mm          | Rig  |               |  |            | EASTING: ND<br>NORTHING: ND  |  |   | INCLINAT               |          | 90°<br>ND                                 |    |
|                    |              | DRILL           | ING            |                                | SAMPLIN  | G             | F                                      |            |  | FIELD M  | IATERIAL DESCRIPTION                      |                        |          |   |    |
| 2 PENERTRATION     | 5 RESISTANCE | WATER           | DEPTH (metres) | DEPTH (RL)                     | SAMPLE OR FIELD TEST                           | RECOVERED     | GRAPHIC LOG                            | USC SYMBOL |  | SOIL / ROCK MATERIAL DESCRIPTION                                       |   | CONSISTENCY<br>DENSITY | MOISTURE | ADDITIONAL OBSERVATIONS                   | s  |
|                    | Τ            | Π               | 0.0            |                                |  | T             |  |            | FILL: sandy CLAY, medium to high pl<br>sand, with silt, trace gravel | lasticity, brown mottled orange/grey, fine to coar                     | rse grained, angular to subangular        | St - VSt               | -        | Controlled Fill                           |    |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   | -  |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | 0.5            |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 |                | 0.65                           | 1  |               | ****<br>•••••                          |            | silty SAND, fine to coarse grained, ar                               | ngular to subangular, grey, low plasticity silt                        |   | VSt                    | w ≈ PL   |   | ┦┨ |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          | Soil                                      |    |
|                    |              |                 | -              | 0.85                           |  |               | <b>KXX</b>                             |            | sandy CLAY, medium to high plasticit<br>with silt                    | ty, brown mottled orange/grey, fine to coarse gra                      | ained, angular to subangular sand,        | St - VSt               |          |   |    |
|                    |              |                 | 1.0            |                                |  |               |  |            |  |  |   |                        |          |   | -  |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   | -  |
|                    |              |                 | -              | 1.20                           |  |               | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX | СН         | silty CLAY, high plasticity, orange mo                               | ttled red/grey/brown, with sand, trace gravel                          |   | VSt                    |          |   |    |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | 1.5            |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              | pe              | -              |                                |  |               |  |            |  |  |   |                        |          |   | -  |
|                    |              | Not Encountered | -              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              | Not En          | -              | 1.80                           |  |               |  |            | sandy CLAY, high plasticity, orange n<br>trace gravel                | mottled red/grey/brown, fine to coarse grained, a                      | angular to subangular sand, with silt,    | 1                      |          |   | -  |
|                    | +            |                 | 2.0            | 2.00                           |  | +             |  |            | Borehole Terminated @ 2m   |  |   |                        |          |   | +- |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | _              |                                |  |               |  |            |  |  |   |                        |          |   | _  |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | 2.5            |                                |  |               |  |            |  |  |   |                        |          |   | _  |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | _              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   | -  |
|                    |              |                 |                |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | 3.0            |                                |  |               |  |            |  |  |   |                        |          |   | -  |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   |    |
|                    |              |                 | -              |                                |  |               |  |            |  |  |   |                        |          |   | =  |
| PENETR             | ATION        |                 | 3.5            |                                | CONSISTENCY                                    |               |  |            | DENSITY  | MOISTURE CONDITION   | TEST NOTES                                |                        |          | <u> </u>                                  |    |
|                    |              | 1 2             | 3 4            |                                | Vs<br>S  | Very<br>Soft  | Soft                                   |            | Fb Friable<br>VL Very Loose  | D Dry<br>M Moist   | PP Pocket Penetron<br>U50 Undisturbed San |                        |          | Groundwater Level UTP Unable to Penetrate |    |
|                    | $\geq$       | 5               |                |                                | F  | Firm<br>Stiff |  |            | L Loose<br>MD Medium Dense   | W Wet<br>w < PL Moist, dry of plastic limit                            | U63 Undisturbed San<br>D Disturbed Sampl  | nple 63mm              |          |   |    |
|                    | no resis     | stence          |                |                                | VSt<br>H                                       | Very<br>Hard  |  |            | D Dense<br>VD Very Dense   | w ≈ PL Moist, near plastic limit<br>w > PL Moist, wet of plastic limit | Bs Bulk Sample<br>E Environmental sa      |                        |          |   |    |
|                    |              |                 | refu           | usal                           |  | , ard         |  |            | vory bonad   | w ≈ LL Wet, near liquid limit<br>w > LL Wet, wet of liquid limit       | HSV Hand Shear Van<br>Cu Undrained Shea   | e test                 |          |   |    |
| <u> </u>           | HAM L        | .OG 6.          | .0 2019        |                                | L  |               |  |            | I  | n - ce wor, wer of inquira infilt                                      | Sa Shuraineu Shea                         | Juongen                |          | Sheet 1 of 1                              | 1  |

| Gro  | undScience  | ENGINEERING BOREHOLE LOG   | Borehole   | No                         | BH4  |   |
|--|---|--|--|----------------------------|--|---|
|  |   |  | JOB No :   |                            | G4589.1  |   |
|  | perty Group Pty Ltd<br>Estate Site Classification - Stage 1                             |  | TEST DA  |                            | 09-Dec-21<br>JSP                               |   |
| LOCATION: Clyde North  |   |  | CHECKE<br>VANE SH                                | D BY:                      | CC<br>N/A                                      |   |
| DRILL METHOD: GT10 Drill<br>HOLE DIAMETER: 100mm                               |   | EASTING: ND<br>NORTHING: ND  | INCLINAT   | FION:                      | 90°<br>ND                                      |   |
| DRILLING   | SAMPLING  | FIELD MATERIAL DESCRIPTION   | 1  | 1                          | 1  |   |
| C C PENERTRATION<br>C RESISTANCE<br>WATER<br>WATER<br>DEPTH (RL)<br>DEPTH (RL) | SAMPLE OR FIELD TEST<br>RECOVERED<br>GRAPHIC LOG<br>USC SYMBOL                          | SOIL / ROCK MATERIAL DESCRIPTION   | CONSISTENCY<br>DENSITY                           | MOISTURE                   | ADDITIONAL OBSERVATIONS                        |   |
| 0.0 -  |   | FILL: silty SAND, fine to medium grained, angular to subangular, pale brown, low plasticity silt, with clay, trace rootlets  | L  | M                          | Controlled Fill                                | _ |
| 0.10<br>0.5<br>0.5<br>0.5<br>0.90<br>10<br>1.20<br>1.20<br>1.5<br>1.50         |   | FIL: sandy CLAY, medium to high plasticity, brown motified orange/grey, fine to coarse grained, angular to subangular<br>sand, with silt, trace rootlets<br>CLAY, high plasticity, dark grey motified orange/brown, trace sand<br>CLAY, high plasticity, dark grey motified orange/brown, trace sand<br>pale grey motified orange/brown, with sand   | VSt  | w ≈ PL<br>w > PL<br>w ≈ PL | Inferred Red Bluff Sandstone Residual<br>Soil  |   |
| 20 2.00  | CONSISTENCY<br>Vs Very Soft<br>S Soft<br>F Firm<br>St Stiff<br>VSt Very Stiff<br>H Hard | Borehole Terminated @ 2m         MOISTURE CONDITION         TEST NOTES           Fb         Friable         D         Dry         PP         Pocket Penetro           VL         Very Loose         M         Moist         U50         Undisturbed Sa           L         Loose         W         Vet         U63         Undisturbed Sa           D         Dense         w < PL Moist, near plastic limit | nple 50mr<br>nple 63mr<br>le<br>ample<br>ne test | n                          | ✓ Groundwater Level<br>UTP Unable to Penetrate |   |

|                                |                 |                | Gro                             | oundSci  | ier   | 166           | Ş                                       | ENGINEERING BOREHOLE LOG  | Borehole                                  | No         | BH5   |           |
|--------------------------------|-----------------|----------------|---------------------------------|--|---|---------------|---|---|---|------------|---|-----------|
| Y                              |                 |                |                                 |  |   |               |   |   | JOB No :                                  |            | G4589.1                                       |           |
| CLIENT:<br>PROJECT:            |                 |                |                                 | operty Group Pty Ltd<br>Estate Site Classification | tion - Star                                   | ae 1          |   |   | TEST DA                                   |            | 09-Dec-21<br>JSP                              |           |
| LOCATION:<br>TEST LOCAT        |                 | C              | Clyde North                     |  |   |               |   |   | CHECKE<br>VANE SH                         | D BY:      | CC<br>N/A                                     |           |
| DRILL METH<br>HOLE DIAME       | HOD:            |                | GT10 Drill F<br>100mm           |  |   | _             |   | EASTING: ND<br>NORTHING: ND   | INCLINAT                                  | TION:      | 90°<br>ND                                     |           |
|                                | DRILL           | LING           |                                 |  | ;   | F             |   | FIELD MATERIAL DESCRIPTION  |   | 1          |   | $\square$ |
| C PENERTRATION<br>C RESISTANCE | 4 WATER         | DEPTH (metres) | DEPTH (RL)                      | SAMPLE OR FIELD TEST                               | RECOVERED                                     | GRAPHIC LOG   | USC SYMBOL                              | SOIL / ROCK MATERIAL DESCRIPTION  | CONSISTENCY<br>DENSITY                    | MOISTURE   | ADDITIONAL OBSERVATIONS                       |           |
|                                |                 | 0.0            | 0.05                            |  | T   |               | SM<br>CI-CH                             | FILL: sity SAND, fine to medium grained, angular to subangular, pale brown, with day, trace rootlets<br>FILL: sandy CLAY, medium to high plasticity, brown mottled orange/grey, fine to coarse grained, angular to subangular<br>sand, with sit   | L   | M<br>tw≈PL | Controlled Fill                               |           |
|                                |                 | 0.5            | -                               |  |   |               |   |   |   |            | -   |           |
|                                |                 |                | 0.65                            |  |   |               | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | FILL: silly CLAY, medium to high plasticity, brown mottled orange/grey/ted/white, with sand, trace gravel   | VSt                                       |            |   |           |
|                                |                 | 1.0            | -<br>-<br>-<br>-<br>-<br>-<br>- |  |   |               |   | silly CLAY, high plasticity, orange mottled grey/brown, with sand   | _   |            | Inferred Red Bluff Sandstone Residual<br>Soil |           |
|                                |                 | 1.5            | -<br>-<br>-<br>1.50             |  |   |               |   | sandy CLAY, high plasticity, orange mottled grey/brown, fine to coarse grained, angular to subangular sand, with silt   | _   |            |   |           |
|                                | Not Encountered |                | -                               |  |   | ĨŶŶŶŶŶŶŶŶŶŶŶŶ |   |   |   |            |   | -         |
|                                |                 | 2.0            | 2.00                            |  | $\left  \right $                              | 2724          |   | Borehole Terminated @ 2m  |   |            |   | -         |
|                                |                 | 2.5            |                                 |  |   |               |   |   |   |            |   | -         |
|                                |                 |                | -                               |  |   |               |   |   |   |            |   | -         |
|                                |                 | 3.0            | -                               |  |   |               |   |   |   |            |   | -         |
|                                |                 |                |                                 |  |   |               |   |   |   |            |   | -         |
| PENETRATIC                     | JON             | 3.5            | <u> </u>                        | CONSISTENCY  | Von   |               | _                                       | DENSITY MOISTURE CONDITION TEST NOTES   |   |            | Groundwater Level                             |           |
| no re                          | 1 2             | <u>`</u>       | √<br>efusal                     | Vs<br>S<br>F<br>St<br>VSt<br>H                     | Very<br>Soft<br>Firm<br>Stiff<br>Very<br>Hard | n<br>y Stiff  |   | Fb         Friable         D         Dry         PP         Pocket Penetro           VL         Very Loose         M         Moist         U50         Undisturbed Sa           L         Loose         W         Wet         UG3         Undisturbed Sa           MD         Medium Dense         w < PL Moist, dry of plastic limit | ample 50mr<br>ample 63mr<br>ple<br>sample | m          | Groundwater Level UTP Unable to Penetrate     |           |
| HAN                            | M_LOG_6         |                |                                 |  |   | —             |   | w > LL Wet, wet of liquid limit Cu Undrained She  |   | 1          | Sheet 1 of 1                                  |           |

| 1                              |                    |                 | Ga                           | oundS   | cier         | 100                                      | _  | ENGINEERING BOREHOLE LOG   | Borehole               | No         | BH6                                   |   |
|--------------------------------|--------------------|-----------------|------------------------------|---|--------------|--|--|--|------------------------|------------|---------------------------------------|---|
| Y                              |                    |                 |                              | June  | Con          |  | 7  |  | JOB No :               |            | G4589.1                               |   |
| CLIENT:<br>PROJECT             | r:                 |                 |                              | Property Group Pty Lto<br>ns Estate Site Classifi |              | ge 1                                     |  |  | TEST DAT               |            | 09-Dec-21<br>JSP                      |   |
| LOCATIO                        |                    | :               | Clyde Nor                    |   |              |  |  |  | CHECKER<br>VANE SH     |            | CC<br>N/A                             |   |
| DRILL ME                       | THOD:              |                 | GT10 D<br>100mm              | Irill Rig   |              |  |  | EASTING: ND<br>NORTHING: ND  | INCLINAT               | TION:      | 90°<br>ND                             |   |
|                                |                    | RILLIN          |                              | SAMPL   | ING          | F  |  | FIELD MATERIAL DESCRIPTION   | 1                      | 1          | 1                                     | _ |
| C PENERTRATION<br>C RESISTANCE | 3 4                | WATER           | DEPTH (metres)<br>DEPTH (RL) | SAMPLE OR FIELD TEST                              | RECOVERED    | GRAPHIC LOG                              | USC SYMBOL                               | SOIL / ROCK MATERIAL DESCRIPTION   | CONSISTENCY<br>DENSITY | MOISTURE   | ADDITIONAL OBSERVATIONS               |   |
|                                | $\overline{\prod}$ | 0.0             |                              | 1   | Ŧ            |  | CI-CH                                    | FIL: sity SAND, fine to medium grained, angular to subangular, pale brown, low plasticity sit, with clay, trace rootlets<br>FIL: sandy CLAY, medium to high plasticity, brown mottled orangeigrey, fine to coarse grained, angular to subangular<br>sand, with sit | L                      | M<br>tw≈PL | Controlled Fill                       |   |
|                                |                    |                 | -                            |   |              |  | 8  | sano, wm sir   |                        |            |                                       | = |
|                                |                    |                 |                              |   |              |  | 8  |  |                        |            |                                       |   |
|                                |                    |                 | ]                            |   |              |  |  |  |                        |            |                                       |   |
|                                |                    | 0.5             | 5 _ 0.50                     | 7   |              |  | 8  | FILL: silty CLAY, medium to high plasticity, brown mottled orange/grey/red   | VSt                    |            |                                       | - |
|                                |                    |                 | 1                            |   |              |  |  |  |                        |            |                                       |   |
|                                |                    |                 | 0.70                         | 7   |              |  | ÷  | silty SAND, fine to coarse grained, angular to subangular, grey, low plasticity silt   | L - MD                 | М          | Inferred Alluvial Deposits            | - |
|                                |                    |                 | 0.90                         | <u>_</u>  |              |  |  | silty CLAY, high plasticity, brown mottled orange/grey, fine to coarse grained, angular to subangular sand, with silt  | VSt                    | w≈ PL      | Inferred Red Bluff Sandstone Residual | = |
|                                |                    | 1.0             |                              | S2  | U50          |  |  |  |                        |            | Soil                                  | H |
|                                |                    |                 |                              |   |              |  |  |  |                        |            |                                       |   |
|                                |                    |                 | 4                            |   |              |  |  |  |                        |            |                                       | _ |
|                                |                    |                 | 1.30                         | /   |              | ***                                      | W.W.W.                                   | sandy CLAY, high plasticity, brown motified orange/grey, fine to coarse grained, angular to subangular sand, with silt   | 1                      |            |                                       |   |
|                                |                    |                 |                              |   | $\top$       | ***                                      | W  |  |                        |            |                                       | Ē |
|                                |                    | 1.5             |                              |   |              | 10 A A A A A A A A A A A A A A A A A A A |  |  |                        |            |                                       |   |
|                                | - I - I            | ntered          | 1                            |   |              | 10                                       | N. N |  |                        |            |                                       | - |
|                                |                    | Not Encountered | ]                            |   |              |  |  |  |                        |            |                                       |   |
|                                | 2                  | Not             | ]                            |   |              |  |  |  |                        |            |                                       |   |
|                                | Ħ                  | 2.0             | 0 _ 2.00                     | r   | +            | - <b>8</b> 22                            | ╞  | Borehole Terminated @ 2m   |                        |            |                                       | - |
|                                |                    |                 | ]                            |   |              |  |  |  |                        |            |                                       |   |
|                                |                    |                 | -                            |   |              |  |  |  |                        |            |                                       | - |
|                                |                    |                 |                              |   |              |  |  |  |                        |            |                                       | = |
|                                |                    | 2.5             | 5                            |   |              |  |  |  |                        |            |                                       | _ |
|                                |                    |                 | -                            |   |              |  |  |  |                        |            |                                       | - |
|                                |                    |                 | _                            |   |              |  |  |  |                        |            |                                       |   |
|                                |                    |                 |                              |   |              |  |  |  |                        |            |                                       |   |
|                                |                    |                 | 1                            |   |              |  |  |  |                        |            |                                       |   |
|                                |                    | 3.0             | -                            |   |              |  |  |  |                        |            |                                       |   |
|                                |                    |                 | 1                            |   |              |  |  |  |                        |            |                                       | - |
|                                |                    |                 | _                            |   |              |  |  |  |                        |            |                                       |   |
|                                |                    |                 | 1                            |   |              |  |  |  |                        |            |                                       |   |
|                                |                    |                 | 1                            |   |              |  |  |  |                        |            |                                       |   |
| Ш                              |                    | 3.5             | 5                            |   |              | L  |  |  |                        |            |                                       | - |
| PENETRA                        |                    |                 |                              | CONSISTENCY<br>Vs                                 | Very         | y Soft                                   |  | DENSITY         MOISTURE CONDITION         TEST NOTES           Fb         Friable         D         Dry         PP         Pocket Penetron  |                        |            | Groundwater Level                     |   |
|                                | ::<br>→□           | 2 3             | 4                            | S<br>F  | Soft<br>Firm |  |  | VL Very Loose M Moist U50 Undisturbed San<br>L Loose W Wet U63 Undisturbed San   |                        |            | UTP Unable to Penetrate               |   |
|                                |                    | 7               | 4                            | St  | Stiff        |  |  | MD Medium Dense w < PL Moist, dry of plastic limit D Disturbed Sampl   |                        |            |                                       |   |
| n                              | o resisten         | nce             |                              | VSt<br>H  | Very<br>Hard | y Stiff<br>d                             |  | D         Dense         w ≈ PL Moist, near plastic limit         Bs         Bulk Sample           VD         Very Dense         w > PL Moist, wet of plastic limit         E         Environmental st  | ample                  |            |                                       |   |
|                                |                    |                 | refusal                      |   |              |  |  | w ≈ LL Wet, near liquid limit HSV Hand Shear Van<br>w > LL Wet, wet of liquid limit Cu Undrained Shea  | e test                 |            |                                       |   |
| F                              | AM_LOG             | G 6.02          | 2019                         |   |              | —  | —  | W > LE Wet, wet of liquid limit  | orengen                |            | Sheet 1 of 1                          |   |

| 1                   |              |                 |                | Gro                         | undSa   | ier           | ICE                   | è          | ENGINEER  | ING BOREHOL  | LE LOG  | Borehole               | No         | BH7  |          |
|---------------------|--------------|-----------------|----------------|-----------------------------|---|---------------|-----------------------|------------|---|--|---|------------------------|------------|--|----------|
|                     |              |                 |                |                             |   |               |                       | ·          |   |  |   | JOB No :               |            | G4589.1                                    |          |
| CLIENT:<br>PROJECT  |              | -               |                |                             | perty Group Pty Ltd<br>Estate Site Classificati | tion - Star   | ge 1                  |            |   |  |   | TEST DAT               |            | 09-Dec-21<br>JSP                           |          |
| LOCATIO<br>TEST LO  |              | )N:             |                | yde North<br>efer to site p | plan, Appendix A                                |               |                       |            |   |  |   | CHECKEE                |            | CC<br>N/A                                  |          |
| DRILL ME<br>HOLE DI |              |                 |                | GT10 Drill F<br>100mm       | Rig   |               |                       |            | EASTING: ND<br>NORTHING: ND   |  |   | INCLINAT               |            | 90°<br>ND                                  |          |
|                     |              | DRILLI          | NG             |                             |   | 3             | $\vdash$              |            |   | FIELD MA   | ATERIAL DESCRIPTION   | <br>T                  |            |  |          |
| C PENERTRATION      | 4 RESISTANCE | WATER           | DEPTH (metres) | DEPTH (RL)                  | SAMPLE OR FIELD TEST                            | RECOVERED     | GRAPHIC LOG           | USC SYMBOL | SOIL / R  | ROCK MATERIAL DESCRIPTION  |   | CONSISTENCY<br>DENSITY | MOISTURE   | ADDITIONAL OBSERVATIONS                    | \$       |
|                     | T            |                 | 0.0            | 0.05                        |   | T             |                       | CI-CH      | FILL: silty SAND, fine to medium grained, angula<br>FILL: sandy CLAY, medium to high plasticity, bro<br>sand, with silt | ar to subangular, pale brown, low plast<br>wn mottled orange/grey, fine to coars | ticity silt, with clay, trace gravel<br>se grained, angular to subangular | L                      | M<br>tw≈PL | Controlled Fill                            |          |
|                     |              |                 | _              |                             |   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | -              |                             |   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | 0.5            | 0.50                        |   |               |                       | a i        | FILL: silty CLAY, medium to high plasticity, brow   | n mottled orange/grey/red  |   | VSt                    |            |  |          |
|                     |              |                 | 1              | 0.70                        |   |               | ****<br>***           | SM         | silty SAND, fine to coarse grained, angular to sul  | bangular, grey, low plasticity silt  |   | L - MD                 | м          | Inferred Alluvial Deposits                 |          |
|                     |              |                 | 1              | 0.80                        | 1   |               | ***                   | СН         | silty CLAY, high plasticity, brown mottled orange   | /grey, with sand   |   | VSt                    | w ≈ PL     | Inferred Red Bluff Sandstone Residual Soil |          |
|                     |              |                 | 1.0            |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | -              |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | -              |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | -              |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | 1.5            |                             |   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              | red             | +              | 1.60                        |   |               | 1X/<br>1922<br>1922   |            | sandy CLAY, high plasticity, brown mottled orang  | ge/grey, fine to coarse grained, angula  | ar to subangular sand, with silt  |                        |            |  |          |
|                     |              | Not Encountered | -              |                             | 1   |               | \$20<br>\$20          |            |   |  |   |                        |            |  |          |
|                     |              | Not F           |                |                             | 1   |               | 97.00<br>1922<br>1922 |            |   |  |   |                        |            |  |          |
|                     | T            |                 | 2.0            | 2.00                        |   | $\uparrow$    |                       |            | Borehole Terminated @ 2m  |  |   |                        |            |  | 1        |
|                     |              |                 | -              |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | -              |                             | 1   |               |                       |            |   |  |   |                        |            |  | =        |
|                     |              |                 | -              |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | 2.5            |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | _              |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 |                |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | 3.0            |                             | 1   |               |                       |            |   |  |   |                        |            |  | -        |
|                     |              |                 |                |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | _              |                             |   |               |                       |            |   |  |   |                        |            |  | =        |
|                     |              |                 | -              |                             | 1   |               |                       |            |   |  |   |                        |            |  |          |
|                     |              |                 | 3.5            |                             |   |               |                       |            |   |  |   |                        |            |  | _        |
| PENETR              | ATION        | _               |                |                             | CONSISTENCY<br>Vs                               | Very          | y Soft                | _          | DENSITY MOIS<br>Fb Friable D  |  | TEST NOTES<br>PP Pocket Penetrom  | neter Test             |            | Groundwater Level                          | <u> </u> |
|                     | ₁<br> >      | 23              | 4              |                             | S<br>F  | Soft<br>Firm  |                       |            | VL Very Loose M<br>L Loose V  | M Moist<br>V Wet   | U50 Undisturbed Sam<br>U63 Undisturbed Sam                                |                        |            | UTP Unable to Penetrate                    |          |
|                     | no resist    | tence           |                |                             | St<br>VSt                                       | Stiff<br>Very | y Stiff               |            |   | PL Moist, dry of plastic limit<br>PL Moist, near plastic limit                   | D Disturbed Sample<br>Bs Bulk Sample                                      | e                      |            |  |          |
|                     | io reala     | ence            | refus          | sal                         | н   | Hard          | ł                     |            | W ≈   | PL Moist, wet of plastic limit<br>LL Wet, near liquid limit                      | E Environmental sa<br>HSV Hand Shear Van                                  |                        |            |  |          |
|                     | HAM L        | .OG_6.0         | 0 2019         |                             | L   |               | —                     |            | w >   | LL Wet, wet of liquid limit  | Cu Undrained Shear  | Strength               |            | Sheet 1 of 1                               | 1        |

|                                     |                 |                | Gro          | undSci  | ier   | CE                                     |            | ENGINE  | ERING BOREHOL   | LE LOG  | Borehole                                       | No       | BH8   |          |
|-------------------------------------|-----------------|----------------|--------------|---|---|--|------------|---|---|---|--|----------|---|----------|
| Y                                   |                 |                |              |   |   |  | ,          |   |   |   | JOB No :                                       |          | G4589.1                                       |          |
| CLIENT:<br>PROJECT:                 |                 |                |              | perty Group Pty Ltd<br>Estate Site Classification | ion - Staç                                    | ae 1                                   |            |   |   |   | TEST DAT                                       |          | 09-Dec-21<br>JSP                              |          |
| LOCATION:<br>TEST LOCATIO           | ON:             | C              | Clyde North  |   | -   | -                                      |            |   |   |   | CHECKER<br>VANE SH                             |          | CC<br>N/A                                     |          |
| DRILL METHO                         | ID:             |                | GT10 Drill F |   |   |  |            | EASTING: ND<br>NORTHING: ND   |   |   | INCLINAT                                       | TION:    | 90°<br>ND                                     |          |
|                                     | DRILL           |                | Tuuhim       | SAMPLING  | ;   |  | _          |   | FIELD M/  | ATERIAL DESCRIPTION   | SURFAC   | : KL:    |   |          |
| c PENERTRATION<br>c RESISTANCE<br>4 | WATER           | DEPTH (metres) | DEPTH (RL)   | SAMPLE OR FIELD TEST                              | RECOVERED                                     | GRAPHIC LOG                            | USC SYMBOL | S   | SOIL / ROCK MATERIAL DESCRIPTION  |   | CONSISTENCY<br>DENSITY                         | MOISTURE | ADDITIONAL OBSERVATIONS                       | ;        |
|                                     | -               | 0.0            |              |   | Ť   |  | SM         | FILL: silty SAND, fine to medium grained,   | , angular to subangular, pale greybrown, low  | v plasticity silt, with clay, trace gravel  |  | М        | Controlled Fill                               |          |
|                                     |                 |                | 0.20         |   |   |  |            | silly SAND, fine to coarse grained, angula  | ar to subangular sand, pale grey-brown, trace   | ie day  | L - MD   |          | Inferred Inferred Alluvial Deposits           |          |
|                                     |                 | 0.5            | 0.85         |   |   |  | СН         | silty CLAY, high plasticity, brown mottled  | • Investment of the sound   |   | VSt  | w≈PL     |   |          |
|                                     |                 |                | 0.05         |   |   |  | G          | sifty CLAY, high prasticity, prown mouree o   | brange/grey, with sand  |   | VGL  | W~r      | Inferred Red Bluff Sandstone Residual<br>Soil |          |
|                                     |                 | 1.0            | 1.30         |   |   |  |            | sandy CLAY, high plasticity, brown mottle   | sd orangelgrey, fine to coarse grained, angul   | lar to subangular sand, with silt   | -  |          |   |          |
|                                     | Not Encountered | 1.5            |              |   |   | XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |            |   |   |   |  |          |   |          |
|                                     | 1               | 2.0            | 2.00         |   | +   | 2744                                   |            | Borehole Terminated @ 2m  |   |   |  |          |   | <u>†</u> |
|                                     |                 | 25             |              |   |   |  |            |   |   |   |  |          |   |          |
| PENETRATIO                          | 4               | 3.5            |              | CONSISTENCY                                       |   |  |            | DENSITY   | MOISTURE CONDITION  | TEST NOTES  |  |          |   |          |
| no resi                             | 1 2             | ref            | fusal        | Vs<br>S<br>F<br>St<br>VSt<br>H                    | Very<br>Soft<br>Firm<br>Stiff<br>Very<br>Hard | Stiff                                  |            | Fb Friable<br>VL Very Loose<br>L Loose<br>MD Medium Dense<br>D Dense<br>VD Very Dense | D Dry<br>M Moist<br>W Vet<br>w < PL Moist, dry of plastic limit<br>w ≈ PL Moist, wet of plastic limit<br>w > PL Moist, wet of plastic limit<br>w > LL Wet, near liquid limit<br>w > LL Wet, wet of liquid limit | PP Pocket Penetrom<br>U50 Undisturbed Sam<br>U63 Undisturbed Sam<br>D Disturbed Sample<br>Bs Bulk Sample<br>E Environmental sa<br>HSV Hand Shear Vane<br>Cu Undrained Shear | nple 50mn<br>nple 63mn<br>e<br>ample<br>e test | n        | Groundwater Level<br>UTP Unable to Penetrate  | 1        |

|                                |                 |                | Gro                          | undSa  | ien           | ce           |            | ENGINEERING BOREHOLE LOG   | Borehole               | No        | BH9   |          |
|--------------------------------|-----------------|----------------|------------------------------|--|---------------|--------------|------------|--|------------------------|-----------|---|----------|
| Y                              |                 |                |                              |  |               |              |            |  | JOB No :               |           | G4589.1                                       |          |
| CLIENT:<br>PROJECT:            |                 |                |                              | erty Group Pty Ltd<br>Estate Site Classificati | on - Stag     | e 1          |            |  | TEST DA                | BY:       | 09-Dec-21<br>JSP                              |          |
| LOCATION:<br>TEST LOCAT        | 10N:            |                | Clyde North<br>Refer to site | plan, Appendix A                               |               |              |            |  | CHECKE<br>VANE SH      |           | CC<br>N/A                                     |          |
| DRILL METH<br>HOLE DIAME       |                 |                | GT10 Drill<br>100mm          | Rig  |               |              |            | EASTING: ND<br>Northing: ND  | INCLINA<br>SURFAC      |           | 90°<br>ND                                     |          |
|                                | DRIL            | LING           | T                            |  | ;             | $\square$    |            | FIELD MATERIAL DESCRIPTION   | 1                      | 1         | 1   |          |
| C PENERTRATION<br>C RESISTANCE | 4 WATER         | DEPTH (metres) | DEPTH (RL)                   | SAMPLE OR FIELD TEST                           | RECOVERED     | GRAPHIC LOG  | USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION   | CONSISTENCY<br>DENSITY | MOISTURE  | ADDITIONAL OBSERVATIONS                       |          |
|                                | Ì               | 0.0            | -                            |  | Ť             |              | CI-CH      | ILL: sandy CLAY, medium to high plasticity, orange-yellow mottled grey, fine to coarse grained, angular to subangula<br>and, with silt   |                        | w ≈ PL    | . Controlled Fill                             | -        |
|                                |                 |                |                              |  |               |              |            |  |                        |           |   |          |
|                                |                 | -              | 0.30                         |  |               |              | SM         | silly SAND, fine to coarse grained, angular to subangular sand, pale grey-brown, trace clay  | L - MD                 | M         | Inferred Inferred Alluvial Deposits           | -        |
|                                |                 |                |                              |  |               |              | •          | ny orana ana ana ang ang ana ang ang ang ang   | -                      |           |   |          |
|                                |                 | 0.5            | -                            |  |               |              |            |  |                        |           |   |          |
|                                |                 |                |                              |  |               |              |            |  |                        |           |   |          |
|                                |                 | -              |                              |  |               |              | 011        |  | VO                     | Di una Di | Information and District Operations Desidered | _        |
|                                |                 |                | 0.80                         |  |               |              | СН         | Silly CLAY, high plasticity, brown mottled orange/grey, with sand  | VSt                    | w≈PL      | Inferred Red Bluff Sandstone Residual<br>Soil | =        |
|                                |                 | 1.0            |                              | \$3  | U50           |              |            |  |                        |           |   | $\vdash$ |
|                                |                 |                |                              |  |               |              |            |  |                        |           |   | =        |
|                                |                 | -              |                              |  |               |              |            |  |                        |           |   | _        |
|                                |                 |                | 1                            |  |               |              |            |  |                        |           |   |          |
|                                |                 | 1.5            | 1.40                         |  |               |              |            | andy CLAY, high plasticity, brown mottled orange/grey, fine to coarse grained, angular to subangular sand, with silt   |                        |           |   | _        |
|                                |                 |                |                              |  |               |              |            |  |                        |           |   |          |
|                                | Not Encountered |                |                              |  |               |              |            |  |                        |           |   | _        |
|                                | lot Enco        |                |                              |  |               |              |            |  |                        |           |   | -        |
|                                |                 |                | -                            |  |               | 9922<br>9922 |            |  |                        |           |   |          |
|                                |                 | 2.0            | 2.00                         |  |               |              |            | Sorehole Terminated @ 2m   |                        |           |   | -        |
|                                |                 | _              | -                            |  |               |              |            |  |                        |           |   |          |
|                                |                 |                |                              |  |               |              |            |  |                        |           |   | -        |
|                                |                 |                | -                            |  |               |              |            |  |                        |           |   | -        |
|                                |                 | 2.5            |                              |  |               |              |            |  |                        |           |   |          |
|                                |                 |                |                              |  |               |              |            |  |                        |           |   | -        |
|                                |                 | -              |                              |  |               |              |            |  |                        |           |   | -        |
|                                |                 |                | ]                            |  |               |              |            |  |                        |           |   |          |
|                                |                 | 3.0            |                              |  |               |              |            |  |                        |           |   | -        |
|                                |                 |                | -                            |  |               |              |            |  |                        |           |   | -        |
|                                |                 | -              | -                            |  |               |              |            |  |                        |           |   |          |
|                                |                 |                | 1                            |  |               |              |            |  |                        |           |   | -        |
|                                |                 | 3.5            |                              |  |               |              |            |  |                        |           |   | -        |
| PENETRATIC                     | DN              |                |                              | CONSISTENCY<br>Vs                              | Very          | Soft         |            | Density         MOISTURE CONDITION         TEST NOTES           Fb         Friable         D         Dry         PP         Pocket Penetro   | meter Test             |           | Groundwater Level                             |          |
| ⊳                              | 1 2             | 34             |                              | S<br>F   | Soft<br>Firm  |              |            | VL         Very Loose         M         Moist         U50         Undisturbed St           L         Loose         W         Wet         U63         Undisturbed St  | mple 50mr              | n         | UTP Unable to Penetrate                       |          |
|                                |                 | <u> </u>       | 4                            | St<br>VSt                                      | Stiff<br>Very |              |            | MD Medium Dense w < PL Moist, dry of plastic limit D Disturbed Sam<br>D Dense w ≈ PL Moist, near plastic limit Bs Bulk Sample  |                        |           |   |          |
| no re                          | sistence        |                |                              | H  | Hard          |              |            | D         Dense         W = PL Molst, heat plastic timit         Ds         Duck sample           VD         Very Dense         w > PL Molst, wet of plastic limit         E         Environmental           w = LL Wet, near liquid limit         HSV         Hand Shear Va |                        |           |   |          |
| НАМ                            | LOG             | r<br>6.0 2019  | efusal                       |  |               |              |            | w = LL Wet, near induid limit HSV Hand Shear VE<br>w > LL Wet, wet of liquid limit Cu Undrained She  |                        | 1         | Sheet 1 of 1                                  |          |

|                                |                 |                | Gro                   | undSci  | ier           | ICE            | è          | ENGINEERING BOREHOLE LOG  | Borehole               | No                 | BH10   |          |
|--------------------------------|-----------------|----------------|-----------------------|---|---------------|----------------|------------|---|------------------------|--------------------|--|----------|
| 7                              |                 |                |                       |   |               |                |            |   | JOB No :               | :                  | G4589.1                                      |          |
| CLIENT:<br>PROJECT:            |                 |                | Five Farms E          | perty Group Pty Ltd<br>Estate Site Classification | ion - Stag    | je 1           |            |   | TEST DA                | BY:                | 09-Dec-21<br>JSP                             |          |
| LOCATION:<br>TEST LOCA         | ATION:          |                |                       | plan, Appendix A                                  |               |                |            |   | CHECKE<br>VANE SH      | IEAR:              | CC<br>N/A                                    |          |
| DRILL METH                     | IETER:          |                | GT10 Drill F<br>100mm | -   |               |                |            | EASTING: ND<br>NORTHING: ND   | INCLINAT<br>SURFAC     |                    | 90°<br>ND                                    |          |
|                                | DRIL            | LLING          |                       |   | ,<br>T        | ┢              |            | FIELD MATERIAL DESCRIPTION  | <b>—</b>               |                    |  | -        |
| C PENERTRATION<br>C RESISTANCE | 4 WATER         | DEPTH (metres) | DEPTH (RL)            | SAMPLE OR FIELD TEST                              | RECOVERED     | GRAPHIC LOG    | USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION  | CONSISTENCY<br>DENSITY | MOISTURE           | ADDITIONAL OBSERVATIONS                      |          |
|                                | T               | 0.0            |                       |   | T             |                |            | FILL: sandy CLAY, medium to high plasticity, orange-yellow mottled grey, fine to coarse grained, angular to subangula   |                        | w≈PL               | Controlled Fill                              |          |
|                                |                 |                | 0.20                  |   |               |                | 1          | silly SAND, fine to coarse grained, angular to subangular sand, pale grey-brown, trace clay   | L - MD                 | M                  | Inferred Inferred Alluvial Deposits          |          |
|                                |                 |                |                       |   |               |                |            |   |                        |                    |  |          |
|                                |                 | -              |                       |   |               |                |            |   |                        |                    |  | =        |
|                                |                 | 0.5            | 1                     |   |               |                |            |   |                        |                    |  |          |
|                                |                 | -              | 0.70                  |   |               |                | СН         | silty CLAY, high plasticity, brown mottled orange, with sand  | VSt                    | w ≈ PL             | Inferred Red Bluff Sandstone Residual        | -        |
|                                |                 |                |                       |   |               |                |            | ng an 1) ng para 1, .   |                        |                    | Soil   |          |
|                                |                 | -              |                       |   |               |                |            |   |                        |                    |  | =        |
|                                |                 | 1.0            |                       |   |               |                |            |   |                        |                    |  |          |
|                                |                 | -              |                       |   |               |                |            |   |                        |                    |  | -        |
|                                |                 | -              | 1                     |   |               |                |            |   |                        |                    |  | -        |
|                                |                 |                | 1.40                  |   |               |                |            | sandy CLAY, high plasticity, brown mottled orange/grey, fine to coarse grained, angular to subangular sand, with silt   | -                      |                    |  |          |
|                                |                 | 1.5            |                       |   |               | \$%X<br>\$%X   |            |   |                        |                    |  | -        |
|                                | per             | -              | 1                     |   |               |                |            |   |                        |                    |  | =        |
|                                | Not Encountered |                | 1                     |   |               | 9922<br>9922   |            |   |                        |                    |  | -        |
|                                | Not E           | -              | 1                     |   |               |                |            |   |                        |                    |  | =        |
|                                | $\vdash$        | 2.0            | 2.00                  |   | +             | \$***<br>\$*** |            | Borehole Terminated @ 2m  | +                      | $\left  - \right $ |  | $\vdash$ |
|                                |                 | -              |                       |   |               |                |            |   |                        |                    |  | -        |
|                                |                 | _              | 1                     |   |               |                |            |   |                        |                    |  | _        |
|                                |                 |                |                       |   |               |                |            |   |                        |                    |  |          |
|                                |                 | 2.5            | 1                     |   |               |                |            |   |                        |                    |  | _        |
|                                |                 | £.~~           |                       |   |               |                |            |   |                        |                    |  | -        |
|                                |                 |                |                       |   |               |                |            |   |                        |                    |  | _        |
|                                |                 | -              | 1                     |   |               |                |            |   |                        |                    |  | -        |
|                                |                 |                | 1                     |   |               |                |            |   |                        |                    |  | -        |
|                                |                 | 3.0            | ]                     |   |               |                |            |   |                        |                    |  |          |
|                                |                 | -              | 1                     |   |               |                |            |   |                        |                    |  | -        |
|                                |                 | -              | 4                     |   |               |                |            |   |                        |                    |  | -        |
|                                |                 | -              | 1                     |   |               |                |            |   |                        |                    |  |          |
|                                |                 | 3.5            |                       | CONCIETENCY                                       |               |                |            |   |                        |                    |  | -        |
| PENETRATI                      |                 | 3 4            |                       | Vs  | Very          |                |            | DENSITY         MOISTURE CONDITION         TEST NOTES           Fb         Friable         D         Dry         PP         Pocket Penetry           U//         Viscul across         N         Next         USE         Use Use Use Use Use Use Use Use Use Use |                        |                    | Groundwater Level<br>UTP Unable to Penetrate |          |
| P                              |                 | .,             |                       | S<br>F  | Soft<br>Firm  |                | ľ          | VL Very Loose M Moist U50 Undisturbed Sa<br>L Loose W Wet U63 Undisturbed Sa  | ample 63mr             |                    | UTP Unable to Penetrate                      |          |
| no r                           | resistence      | ļĿ             | 5                     | St<br>VSt   | Stiff<br>Very | Stiff          | ļ          | MD         Medium Dense         w < PL Moist, dry of plastic limit         D         Disturbed Sam           D         Dense         w ≈ PL Moist, near plastic limit         Bs         Bulk Sample  |                        |                    |  |          |
|                                |                 |                | efusal                | н   | Hard          |                | ļ          | VD Very Dense w > PL Moist, wet of plastic limit E Environmental<br>w ≈ LL Wet, near liquid limit HSV Hand Shear Va   | ane test               |                    |  |          |
| 1AH                            | M LOG           | 6.0 2019       | ]                     |   |               | —              |            | w > LL Wet, wet of liquid limit Cu Undrained She  | ar Strength            | 1                  | Sheet 1 of 1                                 |          |

|                                |           |                 | (              | Gro                          | undSc  | ien          | ICE          | •          | ENGINEERING BOREHOLE LOG  | Borehole               | No       | BH11   |   |
|--------------------------------|-----------|-----------------|----------------|------------------------------|--|--------------|--------------|------------|---|------------------------|----------|--|---|
| Y                              |           | /               |                |                              |  |              |              |            |   | JOB No :               |          | G4589.1                                      |   |
| CLIENT:<br>PROJECT             | r:        |                 | Five           | ve Farms Es                  | erty Group Pty Ltd<br>Estate Site Classificati | tion - Stag  | je 1         |            |   | TEST DAT               |          | 09-Dec-21<br>JSP                             |   |
| LOCATION<br>TEST LOC           |           | N:              |                | yde North<br>efer to site pl | plan, Appendix A                               |              |              |            |   | CHECKED                |          | CC<br>N/A                                    |   |
| DRILL ME<br>HOLE DIA           | METER     | R:              | 1(             | GT10 Drill R                 | -  |              |              |            |   | INCLINAT<br>SURFACE    |          | 90°<br>ND                                    |   |
| _                              |           | DRILLI          | ١G             | -+                           |  | ;            | $\vdash$     |            | FIELD MATERIAL DESCRIPTION  |                        |          |  |   |
| C PENERTRATION<br>C RESISTANCE | 3 4       | WATER           | DEPTH (metres) | DEPTH (RL)                   | SAMPLE OR FIELD TEST                           | RECOVERED    | GRAPHIC LOG  | USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION  | CONSISTENCY<br>DENSITY | MOISTURE | ADDITIONAL OBSERVATIONS                      |   |
|                                | Π         | _               | 0.0            |                              |  | Ť            |              | CI-CH      | FILL: sandy CLAY, medium to high plasticity, orange motified grey/brown, fine to coarse grained, angular to subangular  |                        | w≈PL     | Controlled Fill                              |   |
|                                |           |                 | -              |                              | 1  |              |              |            |   |                        |          |  | - |
|                                |           |                 | 1              |                              | 1  |              |              |            |   |                        |          |  |   |
|                                |           |                 | -              | 0.35                         |  |              |              | SM         | silly SAND, fine to coarse grained, angular to subangular sand, pale grey-brown, trace day  | L - MD                 | м        | Inferred Inferred Alluvial Deposits          | _ |
|                                |           |                 | 0.5            |                              | 1  |              |              |            |   |                        |          |  | - |
|                                |           |                 | -              |                              |  |              |              |            |   |                        |          |  | _ |
|                                |           |                 | -              |                              | 1  |              |              |            |   |                        |          |  | _ |
|                                |           |                 | 1              | 0.90                         | 1  |              |              | СН         | silly CLAY, high plasticity, brown mottled orange, with sand  | VSt                    | w ≈ PL   | Inferred Red Bluff Sandstone Residual        |   |
|                                |           |                 | 1.0            |                              |  |              |              |            |   |                        |          | Soil   | _ |
|                                |           |                 | 1              |                              |  |              |              |            |   |                        |          |  |   |
|                                |           |                 | -              | 1.20                         | 1  |              |              |            | sandy CLAY, high plasticity, brown motiled orange/grey, fine to coarse grained, angular to subangular sand, with silt   |                        |          |  | _ |
|                                |           |                 | -              |                              | 1  |              |              |            |   |                        |          |  | - |
|                                |           |                 | 1.5            |                              | 1  |              | ***          |            |   |                        |          |  | _ |
|                                |           | pe              | -              |                              |  |              |              |            |   |                        |          |  | _ |
|                                |           | Not Encountered | -              |                              | 1  |              |              |            |   |                        |          | .  | _ |
|                                |           | Not En          | -              |                              |  |              |              |            |   |                        |          |  | _ |
|                                | Щ         | 1               | 2.0            | 2.00                         |  | +            | 8888<br>8888 |            | Borehole Terminated @ 2m  |                        |          |  | _ |
|                                |           |                 | ]              |                              | 1  |              |              |            |   |                        |          |  | _ |
|                                |           |                 | 4              |                              |  |              |              |            |   |                        |          | .  | _ |
|                                |           |                 | -              |                              | 1  |              |              |            |   |                        |          |  | _ |
|                                |           |                 | 2.5            |                              |  |              |              |            |   |                        |          |  | _ |
|                                |           |                 | -              |                              | 1  |              |              |            |   |                        |          |  | - |
|                                |           |                 | _              |                              | 1  |              |              |            |   |                        |          |  | _ |
|                                |           |                 | -              |                              |  |              |              |            |   |                        |          |  | _ |
|                                |           |                 |                |                              | 1  |              |              |            |   |                        |          |  | - |
|                                |           | 1               | 3.0            |                              | 1  |              |              |            |   |                        |          |  | - |
|                                |           |                 | -              |                              |  |              |              |            |   |                        |          |  | _ |
|                                |           |                 | -              |                              |  |              |              |            |   |                        |          |  | - |
|                                |           |                 | -              |                              | 1  |              |              |            |   |                        |          |  | - |
| PENETRA                        |           | :               | 3.5            | $\rightarrow$                | CONSISTENCY                                    |              | Ш            |            | DENSITY MOISTURE CONDITION TEST NOTES   |                        |          |  | _ |
| PENEIKA                        |           | 2 3             | 4              |                              | Vs<br>S  | Very<br>Soft |              |            | Fb Friable D Dry PP Pocket Penetrom<br>VL Very Loose M Moist U50 Undisturbed Sam  |                        |          | Groundwater Level<br>UTP Unable to Penetrate | - |
| ſ                              | ⇒⊓        |                 | ,              |                              | F  | Firm         |              | ľ          | L Loose W Wet U63 Undisturbed Sam   | ple 63mm               |          |  |   |
| m                              | o resiste | ence            |                |                              | St<br>VSt                                      | Very         | Stiff        | ľ          | MD         Medium Dense         w < PL Moist, dry of plastic limit         D         Disturbed Sample           D         Dense         w ≈ PL Moist, near plastic limit         Bs         Bulk Sample |                        |          |  |   |
|                                |           |                 | refusi         | al                           | н  | Hard         |              | ľ          | VD Very Dense w > PL Moist, wet of plastic limit E Environmental sa<br>w ≈ LL Wet, near liquid limit HSV Hand Shear Vane  | e test                 |          |  |   |
| н                              | AM_LO     | OG 6.0          | 2019           |                              | <u> </u>                                       | —            | —            |            | w > LL Wet, wet of liquid limit Cu Undrained Shear  | Strength               |          | Sheet 1 of 1                                 | _ |

| Grc  | ound Science  | ENGINEERING BOREHOLE LOG   | Borehole                                       | No              | BH12   |
|--|---|--|--|-----------------|--|
|  |   |  | JOB No :                                       |                 | G4589.1                                      |
|  | operty Group Pty Ltd<br>s Estate Site Classification - Stage 1                          |  | TEST DAT                                       |                 | 09-Dec-21<br>JSP                             |
| LOCATION: Clyde North  |   |  | CHECKED  | D BY:           | CC<br>N/A                                    |
| DRILL METHOD: GT10 Drill<br>HOLE DIAMETER: 100mm   |   |  | INCLINAT                                       | TION:           | 90°<br>ND                                    |
| DRILLING   | SAMPLING  | FIELD MATERIAL DESCRIPTION   |  | T               | 1  |
| DEPTH (Ru)<br>DEPTH (Ru)   | SAMPLE OR FIELD TEST<br>RECOVERED<br>GRAPHIC LOG<br>USC SYMBOL                          | SOIL / ROCK MATERIAL DESCRIPTION   | CONSISTENCY<br>DENSITY                         | MOISTURE        | ADDITIONAL OBSERVATIONS                      |
|  | SM  | H FILL: sandy CLAY, medium to high plasticity, brown mottled orange/grey, fine to coarse grained, angular to subangular  | L  | ≥<br>M<br>tw≈PL | Controlled Fill                              |
| 0.05<br>0.05<br>0.90<br>1.0<br>1.0<br>1.0<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.30<br>1.3 |   | sand, with silt  | VSt  | ₩ ≈ rL          | Inferred Red Bluff Sandstone Residual<br>Sol |
| 25<br>25<br>25<br>30<br>30<br>4<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7<br>7   | CONSISTENCY<br>Vs Very Soft<br>S Soft<br>F Firm<br>St Stiff<br>VSt Very Stiff<br>H Hard | Density       MOISTURE CONDITION       TEST NOTES         Fb       Friable       D       Dry       PP       Pocket Penetrom         VL       Very Loose       M       Moist       U50       Undisturbed Sample         MD       Medium Dense       W        Vet       U63       Undisturbed Sample         D       Dense       w <= PL Moist, ener plastic limit | nple 50mm<br>nple 63mm<br>e<br>ample<br>e test | n               | Groundwater Level<br>UTP Unable to Penetrate |

|                                |                 |                | Gro                  | oundSci  | ien           | CE                  |            | ENGINEERING BOREHOLE LOG   | Borehole               | No         | BH13  |   |
|--------------------------------|-----------------|----------------|----------------------|--|---------------|---------------------|------------|--|------------------------|------------|---|---|
| Y                              |                 |                |                      |  |               |                     | P          |  | JOB No :               |            | G4589.1                                       |   |
| CLIENT:<br>PROJECT:            |                 |                |                      | perty Group Pty Ltd<br>Estate Site Classificatio | on - Stag     | je 1                |            |  | TEST DA                |            | 13-Dec-21<br>JSP                              |   |
| LOCATION<br>TEST LOCA          |                 |                | Clyde North          |  |               |                     |            |  | CHECKEI<br>VANE SH     |            | CC<br>N/A                                     |   |
| DRILL MET<br>HOLE DIAN         |                 |                | ATS Drill R<br>100mm | lig  |               |                     |            | EASTING: ND<br>NORTHING: ND  | INCLINAT               |            | 90°<br>ND                                     |   |
|                                |                 | ILLING         |                      | SAMPLING   | 1             | $\square$           |            | FIELD MATERIAL DESCRIPTION   | <u>т</u>               |            | I   |   |
| c PENERTRATION<br>c RESISTANCE | 4 ATAN          | DEPTH (metres) | DEPTH (RL)           | SAMPLE OR FIELD TEST                             | RECOVERED     | GRAPHIC LOG         | USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION   | CONSISTENCY<br>DENSITY | MOISTURE   | ADDITIONAL OBSERVATIONS                       |   |
|                                |                 | 0.0            | 0.05                 | •  | Ť             |                     |            | FIL: sity SAND, fine to medium grained, angular to subangular, pale brown, low plasticity sitt, with clay, trace rootlets<br>FIL: sandy CLAY, medium to high plasticity, brown motified orange/grey, fine to coarse grained, angular to subangular | L                      | M<br>tw≈PL | Controlled Fill                               | - |
|                                |                 |                | -                    |  |               |                     |            | sand, with silt, trace gravel  |                        |            |   |   |
|                                |                 | -              | -                    |  |               |                     |            |  |                        |            |   |   |
|                                |                 |                |                      |  |               |                     |            |  |                        |            |   |   |
|                                |                 | 0.5            | -                    | S4   | U63           |                     |            |  |                        |            |   |   |
|                                |                 | 0              |                      |  | 000           |                     |            |  |                        |            |   |   |
|                                |                 |                | -                    |  |               |                     |            |  |                        |            |   |   |
|                                |                 |                | ]                    |  |               |                     |            |  |                        |            |   |   |
|                                |                 |                | 0.05                 |  |               |                     |            |  |                        |            | deve disferred Allusial Danasite              |   |
|                                |                 | 1.0            | 0.95                 |  |               |                     | SM         | silty SAND, fine to coarse grained, angular to subangular, grey, low plasticity silt, trace clay   | L - MD                 | М          | Inferred Inferred Alluvial Deposits           |   |
|                                |                 |                |                      |  |               |                     |            |  |                        |            |   |   |
|                                |                 | -              | 1.20                 | 1  |               | \$\$2<br>\$\$2      | СН         | sandy CLAY, high plasticity, brown mottled orange/grey/red, fine to coarse grained, angular to subangular sand, with silt<br>trace gravel  | VSt                    | w ≈ PL     | Inferred Red Bluff Sandstone Residual<br>Soil | _ |
|                                |                 |                | -                    |  |               | ¥22                 |            |  |                        |            |   |   |
|                                |                 |                | -                    |  |               | 9920<br>9920        |            |  |                        |            |   | - |
|                                |                 | 1.5            | ]                    |  |               | 1111<br>1111        |            |  |                        |            |   |   |
|                                | tered           |                |                      |  |               |                     |            |  |                        |            |   | - |
|                                | Not Encountered |                |                      |  |               |                     |            |  |                        |            |   |   |
|                                | Not F           | -              |                      |  |               | 770<br>1970<br>1970 |            |  |                        |            |   |   |
|                                | Н               | 2.0            | 2.00                 |  | –             | <b>***</b>          | <u> </u>   | Borehole Terminated @ 2m   |                        |            |   | - |
|                                |                 |                | -                    |  |               |                     |            |  |                        |            |   |   |
|                                |                 | _              | -                    |  |               |                     |            |  |                        |            |   |   |
|                                |                 |                |                      |  |               |                     |            |  |                        |            |   |   |
|                                |                 |                |                      |  |               |                     |            |  |                        |            |   |   |
|                                |                 | 2.5            | -                    |  |               |                     |            |  |                        |            |   |   |
|                                |                 |                | -                    |  |               |                     |            |  |                        |            |   | - |
|                                |                 | -              | -                    |  |               |                     |            |  |                        |            |   |   |
|                                |                 |                | -                    |  |               |                     |            |  |                        |            |   | - |
|                                |                 |                | ]                    |  |               |                     |            |  |                        |            |   |   |
|                                |                 | 3.0            | ]                    |  |               |                     |            |  |                        |            |   |   |
|                                |                 |                |                      |  |               |                     |            |  |                        |            |   |   |
|                                |                 | -              |                      |  |               |                     |            |  |                        |            |   |   |
|                                |                 |                |                      |  |               |                     |            |  |                        |            |   | = |
|                                |                 | 3.5            | -                    |  |               |                     |            |  |                        |            |   | - |
| PENETRAT                       | ION             |                |                      | CONSISTENCY<br>Vs                                | Very          | Soft                |            | DENSITY         MOISTURE CONDITION         TEST NOTES           Fb         Friable         D         Dry         PP         Packet Penetroi  | notor Tost             |            | - Groundwater Level                           | _ |
|                                | 1 2             | 3 4            | _                    | s  | Soft          |                     |            | VL Very Loose M Moist U50 Undisturbed Sa   | mple 50mm              | n          | UTP Unable to Penetrate                       |   |
|                                |                 | L              |                      | F<br>St  | Firm<br>Stiff |                     |            | L         Loose         W         Wet         U63         Undisturbed Sai           MD         Medium Dense         w < PL Moist, dry of plastic limit   |                        | n          |   |   |
| no                             | resistenc       | æ              | ĸ                    | VSt<br>H   | Very<br>Hard  |                     |            | D Dense w ≈ PL Moist, near plastic limit Bs Bulk Sample<br>VD Very Dense w > PL Moist, wet of plastic limit E Environmental s  |                        |            |   |   |
|                                |                 |                | refusal              |  | ridiu         |                     |            | $w \approx LL$ Wet, near liquid limit HSV Hand Shear Var   | ne test                |            |   |   |
| HA                             | M_LOG           | _6.0 201       | 9                    | L  |               |                     |            | w > LL Wet, wet of liquid limit Cu Undrained Shea  | r Strength             |            | Sheet 1 of 1                                  |   |

|  | <b>Ground</b> Scien  | ce                        | ENGINEERING BOREHOLE LOG   |           |
|--|--|---------------------------|--|-----------|
|  |  |                           | JOB No : G4589.1   |           |
|  | rasers Property Group Pty Ltd<br>ive Farms Estate Site Classification - Stag | ge 1                      | TEST DATE: 13-Dec-21<br>LOGGED BY: JSP   |           |
|  | llyde North<br>Refer to site plan, Appendix A                                |                           | CHECKED BY: CC<br>VANE SHEAR: N/A  |           |
|  | ATS Drill Rig<br>100mm   |                           | EASTING:         ND         INCLINATION:         90°           NORTHING:         ND         SURFACE RL:         ND   |           |
| DRILLING   |  | $\overline{\Box}$         | FIELD MATERIAL DESCRIPTION   |           |
| 5     PENERTRATION       4     RESISTANCE       WATER     WATER       DEPTH (metres) | DEPTH (RL)<br>SAMPLE OR FIELD TEST<br>RECOVERED                              | GRAPHIC LOG<br>USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION   | ERVATIONS |
| 0.0 -  |  |                           | FILL: silly SAND, fine to medium grained, angular to subangular, pale brown, low plasticity silt, with clay, trace rootlets L M Controlled Fill  |           |
| 0.5<br>1.5<br>1.5  | 0.10   | CH (                      | FIL: sandy CLAY, medium to high plasticity, brown motified orange/grey/fine to coarse grained, angular to subangular $\left\{ \begin{array}{c} St - VSt \\ w \approx PL \\ sind, with silt, trace gravel \\ \end{array} \right\}$  |           |
| 20<br>20<br>25   | 2.00   |                           | Borehole Terminated @ 2m   |           |
| PENETRATION  | CONSISTENCY<br>Vs Very<br>S Soft<br>F Firm<br>St Stiff<br>VSt Very<br>H Hard | y Soft                    | DENSITY         MOISTURE CONDITION         TEST NOTES           Fb         Friable         D         Dry         PP         Pocket Penetrometer Test         ▼         Groundwater           VL         Very Loose         M         Moist         U50         Undisturbed Sample 50mm         UTP         Unable to Pen           L         Loose         W         Wet         U63         Undisturbed Sample 63mm           D         Dense         w ≈ PL Moist, dry of plastic limit         B         Bulk Sample         Fundost, wet of plastic limit           VD         Very Dense         w ≈ PL Moist, wet of plastic limit         E         Environmental sample           v = LL         L/Wet, near liquid limit         HSV         Hand Shear Vane test         Vane test |           |

| Gro  | ound Science  | ENGINEERING BOREHOLE LOG  | Borehole No                                 | 。BH15   |
|--|---|---|---|---|
|  |   |   | JOB No :                                    | G4589.1   |
|  | operty Group Pty Ltd<br>Estate Site Classification - Stage 1                            |   | TEST DATE                                   |   |
| LOCATION: Clyde North  |   |   | CHECKED E                                   | BY: CC  |
| DRILL METHOD: ATS Drill<br>HOLE DIAMETER: 100mm  |   | EASTING: ND<br>NORTHING: ND   | INCLINATIO<br>SURFACE R                     | <b>DN:</b> 90°  |
| DRILLING   | SAMPLING  | FIELD MATERIAL DESCRIPTION  | SURPACE IN                                  |   |
| C C C C C C C C C C C C C C C C C  | SAMPLE OR FIELD TEST<br>RECOVERED<br>GRAPHIC LOG<br>USC SYMBOL                          | SOIL / ROCK MATERIAL DESCRIPTION  | CONSISTENCY<br>DENSITY                      | ADDITIONAL OBSERVATIONS   |
| 0.0 -  |   | FILL: silty SAND, fine to coarse grained, angular to subangular, grey, low plasticity silt, with gravel   | L - MD                                      | D Controlled Fill -   |
| 0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.10<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00<br>0.00 | CH  | sity SAND, fine to coarse grained, angular to subangular, grey, low plasticity sit, trace clay sity CLAY, high plasticity, grey mottled orange/brown, with sand sandy CLAY, medium to high plasticity, brown mottled orange/grey/red, fine to coarse grained, angular to subangular sand, with sit, trace gravel  | VSt v                                       | M Interred Inferred Alluvial Deposits<br>w = PL Interred Red Bluff Sandstone Residual<br>Soil |
| PENETRATION  | CONSISTENCY<br>Vs Very Soft<br>S Soft<br>F Firm<br>St Stiff<br>VSt Very Stiff<br>H Hard | Borehole Terminated @ 2m       DENSITY     MOISTURE CONDITION     TEST NOTES       Fb     Friable     D     Dry     PP     Pocket Penetrom       VL     Very Loose     M     Moist     U50     Undisturbed Sample       VL     Very Dense     w ≈ PL Moist, dry of plastic limit     D     Disturbed Sample       VD     Very Dense     w ≈ PL Moist, wet of plastic limit     Bs     Bulk Sample       VD     Very Dense     w ≈ LL Met, wet of flauic limit     HSV     Hand Shear Vant       VD     Very Dense     w ≈ LL Wet, wet of flauic limit     HSV     Hand Shear Vant | ple 50mm<br>ple 63mm<br>e<br>mple<br>e test | Groundwater Level<br>UTP Unable to Penetrate  |

|                            |           |                 |                | Gra                  | oundSci  | ier           | 166            | 2          | ENGINEERING BOREHOLE LOG  | ſ                          | Borehole               | No       | BH16             | 3                                  |    |
|----------------------------|-----------|-----------------|----------------|----------------------|--|---------------|----------------|------------|---|----------------------------|------------------------|----------|------------------|------------------------------------|----|
| Y                          | Ī         |                 |                |                      |  | /w            | 140            | <i>p</i>   |   |                            | JOB No :               |          | G4589.1          |                                    |    |
| CLIENT:<br>PROJECT:        | (;        |                 |                |                      | operty Group Pty Ltd<br>Estate Site Classification | ion - Sta     | iae 1          |            |   |                            | TEST DAT               |          | 13-Dec-21<br>JSP |                                    |    |
| LOCATION<br>TEST LOCA      | N:        | IN:             |                | Clyde North          |  |               |                |            |   | (                          | CHECKED                | D BY:    | CC<br>N/A        |                                    |    |
| DRILL MET                  | THOD      | D:              |                | ATS Drill R<br>100mm |  |               |                |            | EASTING: ND<br>NORTHING: ND   |                            | INCLINAT<br>SURFACE    | TION:    | 90°<br>ND        |                                    |    |
| HULE DIA                   |           | ER:<br>DRILL    | LING           | 100/11               | SAMPLING   | ,             | T              |            | FIELD MATERIAL DESCRIPTIO   |                            | SURFACE                | : KL:    |                  |                                    |    |
| ATION                      |           |                 |                |                      | SAMPLE OR FIELD TEST                               |               |                |            |   |                            |                        |          |                  |                                    |    |
| PENERTRATION<br>RESISTANCE |           | £               | DEPTH (metres) | DEPTH (RL)           | PLE OR FI  | RECOVERED     | GRAPHIC LOG    | USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION  |                            | CONSISTENCY<br>DENSITY | MOISTURE | ADDITI           | IONAL OBSERVATIONS                 | )  |
| 1 2 3                      | 34        | -               | 0.0            | DEP                  | SAM  | REC           | GRAF<br>GRAF   |            | FILL: sandy CLAY, low to medium plasticity, brown, fine to coarse grained, angular to subangular sand, with   | silt. trace                | VSt                    | SIOM D   |                  | ontrolled Fill                     |    |
|                            | 11        |                 | w              | 0.10                 | {  |               |                | SM         | FILE: saliny CERT, for to medium presidury, inform, time to coarse grained, enguine to subangular sand, with<br>rootests<br>FILE: silly SAND, fine to coarse grained, angular to subangular, grey, low plasticity silt, with clay |                            | L - MD                 |          |                  | Illonder I.                        |    |
|                            |           |                 | _              |                      |  |               |                | 8          |   |                            |                        |          |                  |                                    | E  |
|                            |           |                 | .              | 0.30                 | 1  |               |                | CI-CF      | FILL: sandy CLAY, medium to high plasticity, brown mottled orange/grey/red, fine to coarse grained, angular<br>subangular sand, with sitt   | r to                       | St - VSt               | w≈PL     |                  |                                    |    |
|                            |           |                 |                |                      |  |               |                | 8          |   |                            |                        |          |                  |                                    |    |
|                            |           |                 | 0.5            |                      | S5   | U63           | 3              | *          |   |                            |                        |          |                  |                                    |    |
|                            |           |                 |                |                      |  |               |                | 222        |   |                            |                        |          |                  |                                    |    |
|                            |           |                 | -              | -                    |  |               |                | ****       |   |                            |                        |          |                  |                                    |    |
|                            |           |                 |                | -                    | <u> </u>   | +             | -              | 8          |   |                            |                        |          |                  |                                    |    |
|                            |           |                 | 1.0            | -                    |  |               |                | 8          |   |                            |                        |          |                  |                                    |    |
|                            |           |                 |                | 4                    |  |               |                | 8          |   |                            |                        |          |                  |                                    |    |
|                            |           |                 | _              | 1.25                 | 4  |               |                | СН         | silly CLAY, high plasficity, grey mottled orange/brown, with sand   | $ \rightarrow $            | VSt                    |          | Informed Red B   | luff Sandstone Residual            | _  |
|                            |           |                 |                | 1                    |  |               |                |            | ani, Aru i niki kasayi i suku unanar su faranci i   |                            |                        |          | hildings         | Soil                               |    |
|                            |           |                 | Ļ              |                      |  |               |                |            |   |                            |                        |          |                  |                                    |    |
|                            |           |                 | 1.5            |                      |  |               |                |            |   |                            |                        |          |                  |                                    |    |
|                            |           | Itered          |                | 1.65                 | 1  |               |                | XXX        | sandy CLAY, high plasticity, brown mottled orange/grey/red, fine to coarse grained, angular to subangular sa<br>trace gravel  | and, with silt,            |                        |          |                  |                                    |    |
|                            |           | Not Encountered |                | -                    |  |               |                | X          |   |                            |                        |          |                  |                                    |    |
|                            |           | Not             |                | ] '                  |  |               | 992<br>992     |            |   |                            |                        |          |                  |                                    |    |
|                            | Η         |                 | 2.0            | 2.00                 | <u> </u>   | +             | - <u>**</u> ** | -          | Borehole Terminated @ 2m  |                            |                        |          |                  |                                    | +- |
|                            |           |                 |                |                      |  |               |                |            |   |                            |                        |          |                  |                                    |    |
|                            |           |                 | -              |                      |  |               |                |            |   |                            |                        |          |                  |                                    | _  |
|                            |           |                 |                | ]                    |  |               |                |            |   |                            |                        |          |                  |                                    |    |
|                            |           |                 | 2.5            | -                    |  |               |                |            |   |                            |                        |          |                  |                                    | _  |
|                            |           |                 | 6              | -                    |  |               |                |            |   |                            |                        |          |                  |                                    | =  |
|                            |           |                 |                | -                    |  |               |                |            |   |                            |                        |          |                  |                                    |    |
|                            |           |                 |                | ]                    |  |               |                |            |   |                            |                        |          |                  |                                    | -  |
|                            |           |                 |                |                      |  |               |                |            |   |                            |                        |          |                  |                                    | -  |
|                            |           |                 | 3.0            | -                    |  |               |                |            |   |                            |                        |          |                  |                                    | -  |
|                            |           |                 |                | -                    |  |               |                |            |   |                            |                        |          |                  |                                    | -  |
|                            |           |                 | -              |                      |  |               |                |            |   |                            |                        |          |                  |                                    | =  |
|                            |           |                 |                | -                    |  |               |                |            |   |                            |                        |          |                  |                                    |    |
|                            |           |                 |                | 3 /                  |  |               |                |            |   |                            |                        |          |                  |                                    | -  |
| PENETRAT                   | TION      |                 | 3.5            |                      | CONSISTENCY  | <u> </u>      | <u> </u>       | <u> </u>   | DENSITY MOISTURE CONDITION TEST NOTES   |                            |                        |          |                  |                                    |    |
|                            | 1         | 2               | 3 4            | -                    | Vs<br>S  | Very<br>Soft  | y Soft<br>t    | -          |   | t Penetrome<br>turbed Samp |                        |          |                  | undwater Level<br>ble to Penetrate |    |
|                            | >         | 5               |                | '                    | F<br>St  | Firm<br>Stiff | n              |            | L Loose W Wet U63 Undistu   | turbed Samp<br>bed Sample  | ple 63mm               |          |                  |                                    |    |
| no                         | o resiste | tence           |                |                      | VSt  | Very          | y Stiff        |            | D Dense w ≈ PL Moist, near plastic limit Bs Bulk Sa   | Sample                     |                        |          |                  |                                    |    |
|                            |           |                 |                | refusal              | н  | Hard          | 1              |            | w ≈ LL Wet, near liquid limit HSV Hand S  | onmental san<br>Shear Vane | test                   |          |                  |                                    |    |
| H                          | AM 1      | 06.6            | 6.0 2019       | 9                    |  | —             | —              | —          | w > LL Wet, wet of liquid limit Cu Undrain  | ined Shear S               | Strength               |          |                  | Sheet 1 of 1                       | 1  |

|  | Gro                            | undSci  | ien                                     | ce                   |            | ENGINE  | ERING BOREHO   | LE LC                             | )G   | Borehole                               | No       | BH               | 17                                   |        |
|--|--------------------------------|---|---|----------------------|------------|---|--|-----------------------------------|--|--|----------|------------------|--------------------------------------|--------|
|  |                                |   |   |                      |            |   |  |                                   |  | JOB No :                               |          | G4589.1          |                                      |        |
| CLIENT:<br>PROJECT:  |                                | perty Group Pty Ltd<br>Estate Site Classification | on - Stage                              | 91                   |            |   |  |                                   |  | TEST DAT                               |          | 13-Dec-21<br>JSP |                                      | _      |
| LOCATION:<br>TEST LOCATION:  | Clyde North<br>Refer to site p | plan, Appendix A                                  |   |                      |            |   |  |                                   |  | CHECKED                                |          | CC<br>N/A        |                                      |        |
| DRILL METHOD:<br>HOLE DIAMETER:  | ATS Drill Ri<br>100mm          |   |   |                      |            | EASTING: ND<br>NORTHING: ND   |  |                                   |  | INCLINAT                               |          | 90°<br>ND        |                                      |        |
| DRILLING   |                                | SAMPLING  | $\overline{-}$                          | F                    | -          |   | FIELD MJ   | IATERIAL DES                      | SCRIPTION  |  |          |                  |                                      |        |
| C         PENERTRATION           C         RESISTANCE           P         MATER           WATER         DEPTH (metres) | DEPTH (RL)                     | SAMPLE OR FIELD TEST                              | RECOVERED                               | GRAPHIC LOG          | USC SYMBOL | s   | SOIL / ROCK MATERIAL DESCRIPTION   |                                   |  | CONSISTENCY<br>DENSITY                 | MOISTURE | A                | DDITIONAL OBSERVATION:               | S      |
| 0.0  | 1                              |   | T T                                     | KXXX CI              | -CH        | FILL: sandy CLAY, medium to high plasti<br>subangular sand, with silt   | icity, brown mottled orange/grey/red, fine to c  | coarse grained                    | l, angular to  |  | w≈PL     |                  | Controlled Fill                      | $\top$ |
| Not Encountered  |                                |   |   |                      |            | silly CLAY, high plasticity, grey motified or                           | rangeibrown, with sand   |                                   |  | VSt                                    |          | Interned R       | Red Bluff Sandstone Residual<br>Soil |        |
| 20   | -<br>-<br>-<br>-<br>-<br>-     |   |   | 9922<br>9922<br>9922 |            | Borehole Terminated @ 2m  |  |                                   |  |  |          |                  |                                      |        |
| 25   |                                |   |   |                      |            |   |  |                                   |  |  |          |                  |                                      |        |
| PENETRATION  |                                | CONSISTENCY<br>Vs                                 | Very                                    | Soft                 | コ          | DENSITY<br>Fb Friable   | MOISTURE CONDITION<br>D Dry  | TEST NOTES<br>PP                  | s<br>Pocket Penetrom   | eter Test                              |          | _ <u>_</u> _     | Groundwater Level                    |        |
| 1 2 3 4  | refusal                        | S<br>F<br>St<br>VSt<br>H                          | Soft<br>Firm<br>Stiff<br>Very S<br>Hard | Stiff                |            | VL Very Loose<br>L Loose<br>MD Medium Dense<br>D Dense<br>VD Very Dense | $\label{eq:model} \begin{array}{ll} M & \text{Moist} \\ W & \text{Vet} \\ w < PL \ \text{Moist}, \ dry \ of \ plastic \ limit \\ w \approx PL \ \text{Moist}, \ mear \ plastic \ limit \\ w = LL \ Wet, \ mear \ liquid \ limit \\ w > LL \ Wet, \ wet \ of \ liquid \ limit \\ \end{array}$ | U50<br>U63<br>D<br>Bs<br>E<br>HSV | Undisturbed Sam<br>Undisturbed Sample<br>Disturbed Sample<br>Bulk Sample<br>Environmental sa<br>Hand Shear Vane<br>Undrained Shear | ple 50mm<br>ple 63mm<br>mple<br>e test | n        |                  | Unable to Penetrate                  | - 1    |

| (              |              |                 |                 | Gro                   | undSci  | ien           | ce          | <u>b</u>   | ENGINEERING BOREHOLE LO  | OG                                 | Borehole               | No               | BH18                                     |          |
|----------------|--------------|-----------------|-----------------|-----------------------|---|---------------|-------------|------------|--|------------------------------------|------------------------|------------------|--|----------|
|                | 4            |                 |                 |                       |   |               |             |            |  |                                    | JOB No :               |                  | G4589.1                                  |          |
| CLIENT         |              |                 |                 |                       | perty Group Pty Ltd<br>Estate Site Classificati | ion - Stag    | ie 1        |            |  |                                    | TEST DAT               |                  | 13-Dec-21<br>JSP                         |          |
| LOCAT          |              | ON:             | (               | Clyde North           |   |               |             |            |  |                                    | CHECKED                | D BY:            | CC<br>N/A                                |          |
| DRILL I        | METHO        | D:              |                 | ATS Drill Ri<br>100mm |   |               |             |            | EASTING: ND<br>NORTHING: ND  |                                    | INCLINAT               | FION:            | 90°<br>ND                                |          |
|                |              | DRILI           | LING            |                       | SAMPLING  | ;<br>—        | $\square$   | _          | FIELD MATERIAL DE  |                                    |                        |                  |  |          |
| C PENERTRATION | 2 RESISTANCE | WATER           | DEPTH (metres)  | DEPTH (RL)            | SAMPLE OR FIELD TEST                            | RECOVERED     | GRAPHIC LOG | USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION   |                                    | CONSISTENCY<br>DENSITY | MOISTURE         | ADDITIONAL OBSERVAT                      | IONS     |
|                |              | Ī               | 0.0             | 0.05                  |   | İ             |             | CI-CH      | FILL: sandy CLAY, medium to high plasticity, brown mottled orange/grey/red, fine to coarse grainer<br>subangular sand, with silt                         | d, angular to                      | St - VSt               |                  | Controlled Fill                          |          |
|                |              |                 |                 |                       |   |               |             |            |  |                                    |                        |                  |  | ]        |
|                |              |                 | -               |                       |   |               |             |            |  |                                    |                        |                  |  |          |
|                |              |                 |                 |                       |   |               |             |            |  |                                    |                        |                  |  |          |
|                |              |                 | 0.5             |                       |   |               |             |            |  |                                    |                        |                  |  | $\vdash$ |
|                |              |                 | -               |                       |   |               |             |            |  |                                    |                        |                  |  |          |
|                |              |                 |                 |                       |   |               |             |            |  |                                    |                        |                  |  |          |
|                |              |                 |                 |                       |   |               |             |            |  |                                    |                        |                  |  | ]        |
|                |              |                 | 1.0             |                       |   |               |             |            |  |                                    |                        |                  |  |          |
|                |              |                 | -               |                       |   |               |             |            |  |                                    |                        |                  |  |          |
|                |              |                 |                 | 1.20                  |   |               |             |            | silty SAND, fine to coarse grained, angular to subangular, grey, low plasticity silt, trace clay   |                                    | L - MD                 | м                | Inferred Inferred Alluvial Depos         | iits     |
|                |              |                 | -               | 1.30                  |   |               |             | СН         | silty CLAY, high plasticity, grey mottled orange/brown, with sand  |                                    | VSt                    | w ≈ PL           | Inferred Red Bluff Sandstone Res<br>Soil | idual    |
|                |              |                 |                 |                       |   |               |             |            |  |                                    |                        |                  |  |          |
|                |              |                 | 1.5             |                       | S6  | U63           |             |            |  |                                    |                        |                  |  |          |
|                |              | ered            |                 |                       |   |               |             |            |  |                                    |                        |                  |  |          |
|                |              | Not Encountered | -               |                       |   |               |             |            |  |                                    |                        |                  |  |          |
|                |              | Not F           |                 |                       |   |               |             |            |  |                                    |                        |                  |  |          |
| +              |              |                 | 2.0             | 2.00                  |   | +             | <i>\$</i>   |            | Borehole Terminated @ 2m   |                                    |                        | $\left  \right $ |  | +        |
|                |              |                 | -               |                       |   |               |             | '          |  |                                    |                        |                  |  |          |
|                |              |                 | _               |                       |   |               |             | '          |  |                                    |                        |                  |  | _        |
|                |              |                 |                 |                       |   |               |             | 1          |  |                                    |                        |                  |  |          |
|                |              |                 | 2.5             |                       |   |               |             | 1          |  |                                    |                        |                  |  | _        |
|                |              |                 | 2.5             |                       |   |               |             | '          |  |                                    |                        |                  |  | =        |
|                |              |                 | -               |                       |   |               |             | 1          |  |                                    |                        |                  |  |          |
|                |              |                 | -               |                       |   |               |             | 1          |  |                                    |                        |                  |  | -        |
|                |              |                 | -               |                       |   |               |             | 1          |  |                                    |                        |                  |  | -        |
|                |              |                 | 3.0             |                       |   |               |             | 1          |  |                                    |                        |                  |  | =        |
|                |              |                 | -               |                       |   |               |             | 1          |  |                                    |                        |                  |  | -        |
|                |              |                 | -               |                       |   |               |             | 1          |  |                                    |                        |                  |  |          |
|                |              |                 | -               |                       |   |               |             | 1          |  |                                    |                        |                  |  | =        |
|                |              |                 | 35              |                       |   |               |             | '          |  |                                    |                        |                  |  |          |
| PENET          | RATIO        | N               | 0.0             | <u> </u>              | CONSISTENCY<br>Vs                               | Very          | <u></u>     |            | DENSITY MOISTURE CONDITION TEST NOTE<br>Fb Friable D Dry PP  | ES<br>Pocket Penetrome             | -ter Toet              |                  | Groundwater Level                        |          |
|                |              | 1 2             | 3 4             |                       | S   | Soft          |             | ľ          | VL Very Loose M Moist U50  | Undisturbed Samp                   | ple 50mm               | n                | UTP Unable to Penetrate                  |          |
|                |              | 5               |                 | _                     | F<br>St   | Firm<br>Stiff |             | ľ          | L         Loose         W         Wet         U63           MD         Medium Dense         w < PL Moist, dry of plastic limit                           | Undisturbed Sample                 |                        | 1                |  |          |
|                | no resi      | stence          |                 |                       | VSt<br>H  | Very<br>Hard  |             | ľ          | D         Dense         w ≈ PL Moist, near plastic limit         Bs           VD         Very Dense         w > PL Moist, wet of plastic limit         E | Bulk Sample<br>Environmental sar   | mple                   |                  |  |          |
|                |              |                 | re <sup>4</sup> | fusal                 |   |               |             | ľ          | w ≈ LL Wet, near liquid limit HSV<br>w > LL Wet, wet of liquid limit Cu  | Hand Shear Vane<br>Undrained Shear | e test                 |                  |  |          |
| <b> </b>       | HAM          | LOG 6           | 6.0 2019        |                       |   |               | _           |            |  |                                    | 3-1                    |                  | Sheet 1                                  | 1 of 1   |

|                            |                 |                | Gro                          | oundSci   | ier           | ICE               | 2    | ENGINE   | EERING BOREHO  | LE LOG                                   | Borehole               | No                     | BH               | 119                                      |    |
|----------------------------|-----------------|----------------|------------------------------|---|---------------|-------------------|------|--|--|--|------------------------|------------------------|------------------|--|----|
| Y                          |                 |                |                              | •   |               |                   |      |  |  |  | JOB No :               |                        | G4589.1          |  |    |
| CLIENT:<br>PROJECT:        |                 |                |                              | perty Group Pty Ltd<br>Estate Site Classification | ion - Staç    | ge 1              |      |  |  |  | TEST DA                |                        | 13-Dec-21<br>JSP |  |    |
| LOCATION:<br>TEST LOCAT    |                 |                | Clyde North<br>Refer to site | a plan, Appendix A                                |               |                   |      |  |  |  | CHECKEI<br>VANE SH     |                        | CC<br>N/A        |  |    |
| DRILL METH<br>HOLE DIAME   | ETER:           |                | ATS Drill R<br>100mm         |   |               | _                 |      | EASTING: ND<br>NORTHING: ND  |  |  | INCLINAT<br>SURFACE    |                        | 90°<br>ND        |  |    |
|                            | DRIL            | LLING          |                              |   | ,<br>T        | ┢                 |      |  | FIELD N  | MATERIAL DESCRIPTION                     | 1                      |                        |                  |  |    |
| PENERTRATION<br>RESISTANCE |                 | DEPTH (metres) | (RL)                         | SAMPLE OR FIELD TEST                              | ERED          | GRAPHIC LOG       | MBOL |  | SOIL / ROCK MATERIAL DESCRIPTION                                       |  | CONSISTENCY<br>DENSITY | JRE                    | A                | ADDITIONAL OBSERVATION                   | IS |
| 123                        | 4 MATER         | -              | DEPTH (RL)                   | SAMPL   | RECOVERED     |                   |      |  |  | 1. A second second                       |                        | MOISTURE               |                  | 5  |    |
|                            |                 | 0.0            | 0.05                         | ·   |               |                   | 8    | FILL: sandy CLAY, medium to high pla<br>subangular sand, with silt | lasticity, brown mottled orange/grey/red, fine to                      | coarse grained, angular to               | St - VSt               | tw <pl<br>w≈PL</pl<br> |                  | Controlled Fill                          |    |
|                            |                 |                |                              |   |               |                   | al l |  |  |  |                        |                        |                  |  |    |
|                            |                 |                | 0.30                         | 1   |               |                   | СН   | sandy CLAY, high plasticity, brown mo<br>trace gravel              | ottled orange/grey/red, fine to coarse grained, a                      | angular to subangular sand, with silt,   | VSt                    |                        | Inferred         | Red Bluff Sandstone Residua<br>Soil      |    |
|                            |                 | 0.5            |                              |   |               | 922<br>922<br>922 |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               | 972<br>972        |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               | ***               |      |  |  |  |                        |                        |                  |  |    |
|                            |                 | 1.0            |                              |   |               | 922<br>922        |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               | 9928<br>9922      |      |  |  |  |                        |                        |                  |  |    |
|                            |                 | 1.5            |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            | untered         |                |                              |   |               | 9920<br>9920      |      |  |  |  |                        |                        |                  |  |    |
|                            | Not Encountered | -              |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            |                 | -              | 2.00                         |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            |                 | 2.0            | 2.00                         |   |               |                   |      | Borehole Terminated @ 2m   |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  | =  |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  | _  |
|                            |                 | 2.5            |                              |   |               |                   |      |  |  |  |                        |                        |                  |  | -  |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  | _  |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  | =  |
|                            |                 | 3.0            |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  | -  |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  | -  |
|                            |                 |                |                              |   |               |                   |      |  |  |  |                        |                        |                  |  |    |
| PENETRATIO                 |                 | 3.5            |                              | CONSISTENCY                                       |               |                   |      | DENSITY  | MOISTURE CONDITION   | TEST NOTES                               |                        |                        |                  |  |    |
| PENEIRAIN                  |                 | 3 4            |                              | Vs<br>S   |               | y Soft            |      | Fb Friable   | D Dry<br>M Moist   | PP Pocket Penetrom                       |                        |                        | UTP              | Groundwater Level<br>Unable to Penetrate |    |
| P                          | · 「「」           |                |                              | F   | Soft<br>Firm  | ı                 |      | L Loose  | W Wet  | U63 Undisturbed Sam                      | nple 63mm              |                        | UIP              | Unable to Penetrate                      |    |
| no re                      | esistence       | , <b></b> <    | Í                            | St<br>VSt   | Stiff<br>Very | y Stiff           |      | MD Medium Dense<br>D Dense   | w < PL Moist, dry of plastic limit<br>w ≈ PL Moist, near plastic limit | D Disturbed Sample<br>Bs Bulk Sample     |                        |                        |                  |  |    |
|                            |                 | rei            | afusal                       | н   | Hard          | 1                 |      | VD Very Dense  | w > PL Moist, wet of plastic limit<br>w ≈ LL Wet, near liquid limit    | E Environmental sa<br>HSV Hand Shear Van | e test                 |                        |                  |  |    |
| HAN                        | 1106 (          | 6.0 2019       |                              | <u> </u>  |               | —                 |      |  | w > LL Wet, wet of liquid limit  | Cu Undrained Shear                       | Strength               |                        |                  | Sheet 1 of                               | 1  |

|  |        |                 |                | Gro          | undSc  | ien           | ce           | •          | ENGINEERIN   | g Boreho  | LE LOG                  | ì                                | Borehole               | No       | BH               | 20                                       |      |
|--|--------|-----------------|----------------|--------------|--|---------------|--------------|------------|--|---|-------------------------|----------------------------------|------------------------|----------|------------------|--|------|
| Y                                      | U      | /               |                |              |  |               |              | ,          |  |   |                         |                                  | JOB No :               |          | G4589.1          |  |      |
| CLIENT:<br>PROJECT:                    |        |                 |                |              | erty Group Pty Ltd<br>Estate Site Classificati | on - Stag     | e 1          |            |  |   |                         |                                  | TEST DAT               |          | 13-Dec-21<br>JSP |  |      |
| LOCATION<br>TEST LOC                   | 4:     |                 | C              | Clyde North  |  | un            |              |            |  |   |                         |                                  | CHECKEI<br>VANE SH     | BY:      | CC<br>N/A        |  |      |
| DRILL MET                              | THOD   | :               |                | ATS Drill Ri | plan, Appendix A<br>ig                         |               |              |            | EASTING: ND  |   |                         |                                  | INCLINAT               | ION:     | 90°              |  |      |
| HOLE DIAN                              |        | r:<br>Drill     |                | 100mm        | SAMPLING                                       | 6             |              |            | NORTHING: ND   | FIELD M   | IATERIAL DESCRI         |                                  | SURFACE                | RL:      | ND               |  |      |
| N                                      |        |                 |                |              | TEST   | Τ             | $\square$    |            |  |   |                         |                                  |                        |          |                  |  |      |
| <pre>c FENERTRATION c RESISTANCE</pre> | 4      | WATER           | DEPTH (metres) | DEPTH (RL)   | SAMPLE OR FIELD TEST                           | RECOVERED     | GRAPHIC LOG  | USC SYMBOL | SOIL / ROCK  | MATERIAL DESCRIPTION                                  |                         |                                  | CONSISTENCY<br>DENSITY | MOISTURE | A                | ADDITIONAL OBSERVATION                   | VS   |
|  | Π      | _               | 0.0            |              |  | Ī             |              | SM         | FILL: silty SAND, low plasticity, pale brown, fine to co-              | arse grained, angular to subang                       | gular sand              |                                  | L                      | D - M    |                  | Controlled Fill                          | -    |
|  | 1      |                 | -              | 0.10         |  |               |              | CL         | FILL: sandy CLAY, low plasticity, brown, fine to coars                 | e grained, angular to subangula                       | ar sand, with silt, tra | ce gravel                        | VSt                    | w ≈ PL   |                  |  | -    |
|  | H      |                 | _              | 0.25         |  |               |              | CI-CH      | FILL: sandy CLAY, medium to high plasticity, brown n                   | nottled orange/grey, fine to coar                     | rse grained, angular    | to subangular                    | St - VSt               |          |                  |  | -    |
|  |        |                 |                |              |  |               |              |            | sand, with silt, trace gravel  |   |                         |                                  |                        |          |                  |  |      |
|  |        |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | _    |
|  | H      |                 | 0.5            | 0.55         |  |               | ***          | СН         | sandy CLAY, high plasticity, brown mottled orange/gr                   | ey/red, fine to coarse grained, a                     | angular to subangula    | ar sand, with silt               | VSt                    |          | Inferred         | Red Bluff Sandstone Residua<br>Soil      | al _ |
|  | Π      |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  | 00                                       |      |
|  | Π      |                 | _              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  | Π      |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  | Π      |                 | 1.0            |              |  |               | 9922<br>9922 |            |  |   |                         |                                  |                        |          |                  |  |      |
|  | Π      |                 | -              |              |  |               | 9722<br>9722 |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  | Π      |                 | _              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | _    |
|  | Π      |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  | Π      |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  | Π      |                 | 1.5            | 1.50         |  |               |              |            | ncreased sand content with depth                                       |   |                         |                                  |                        |          |                  |  | -    |
|  | Π      | red             | -              |              |  |               | 9%20<br>9%20 |            |  |   |                         |                                  |                        |          |                  |  |      |
|  | Π      | Not Encountered | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  | Π      | Not Er          | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  | Ц      |                 | 2.0            | 2.00         |  | -             |              |            | Borehole Terminated @ 2m   |   |                         |                                  |                        |          |                  |  |      |
|  |        |                 | -              | 2.00         |  |               |              |            | Solenoie reminated @ zm  |   |                         |                                  |                        |          |                  |  |      |
|  |        |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  |        |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  |      |
|  |        |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  |        |                 | 2.5            |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  |        |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  |        |                 | _              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | _    |
|  |        |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  |        |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  |        |                 | 3.0            |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  |      |
|  |        |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  |        |                 | _              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  | -    |
|  |        |                 | -              |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  |      |
|  |        |                 | 35             |              |  |               |              |            |  |   |                         |                                  |                        |          |                  |  |      |
| PENETRAT                               | TION   |                 |                |              | CONSISTENCY                                    |               | •            |            |  | E CONDITION   | TEST NOTES              |                                  |                        |          | <b>V</b>         | 0  |      |
|  | 1      | 2               | 34             |              | Vs<br>S  | Very<br>Soft  | Soft         |            | Fb         Friable         D           VL         Very Loose         M | Dry<br>Moist  | U50 Uno                 | ket Penetrome<br>disturbed Sam   |                        |          | UTP              | Groundwater Level<br>Unable to Penetrate |      |
| ľ                                      | >      | 5               |                |              | F<br>St  | Firm<br>Stiff |              |            | L Loose W<br>MD Medium Dense w < PL f                                  | Wet<br>Moist, dry of plastic limit                    |                         | disturbed Samp<br>turbed Sample  |                        | ı        |                  |  |      |
| no                                     | resist | ence            |                |              | VSt  | Very          |              |            | D Dense w≈PLI  | Moist, near plastic limit                             | Bs Bul                  | k Sample                         |                        |          |                  |  |      |
|  |        |                 | ref            | usal         | н  | Hard          |              |            | w ≈ LL V   | Moist, wet of plastic limit<br>Vet, near liquid limit | HSV Har                 | vironmental san<br>nd Shear Vane | test                   |          |                  |  |      |
| HA                                     | W LO   | )G 6.           | 0 2019         |              |  |               |              |            | w > LL \   | Vet, wet of liquid limit                              | Cu Uno                  | drained Shear                    | Strength               |          |                  | Sheet 1 of                               | f1   |

| G G   | iround Scie  | ence                                   | ENGINEERING BOREHOLE LOG  | Borehole               | No       | BH21  |   |
|---|--|--|---|------------------------|----------|---|---|
|   |  |  |   | JOB No :               |          | G4589.1                                       |   |
|   | ers Property Group Pty Ltd<br>Farms Estate Site Classification - | Stage 1                                |   | TEST DAT               |          | 13-Dec-21<br>JSP                              | _ |
|   | e North<br>r to site plan, Appendix A                            |  |   | CHECKED                |          | CC<br>N/A                                     |   |
|   | S Drill Rig<br>Omm   |  | EASTING: ND<br>NORTHING: ND   | INCLINAT               |          | 90°<br>ND                                     |   |
| DRILLING  |  |  | FIELD MATERIAL DESCRIPTION  |                        |          |   |   |
| C PENERTRATION<br>C RESISTANCE<br>WATER<br>DEPTH (metres) | DEPTH (RL)<br>SAMPLE OR FIELD TEST                               | RECOVERED<br>GRAPHIC LOG<br>USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION  | CONSISTENCY<br>DENSITY | MOISTURE | ADDITIONAL OBSERVATIONS                       |   |
| 0.0   |  | SM                                     | FILL: silly SAND, fine to coarse grained, angular to subangular, pale brown   | L - MD                 | D - M    | Controlled Fill                               |   |
|   | 0.20   |  | FILL: sandy CLAY, medium to high plasticity, brown mottled orange/grey, fine to coarse grained, angular to subangular   | St - VSt               | w≈PL     |   |   |
|   | 0.20   |  | FILE. Sandy CLAY, medium to high plasticity, drown mouteo orangergrey, nine to coarse grameo, angular to subangular<br>sand, with silt, trace gravel  | 01- 10.                | w c      |   |   |
|   |  |  |   |                        |          |   |   |
| 0.5   |  |  |   |                        |          |   | - |
|   |  |  |   |                        |          |   |   |
|   | 0.75   | CH                                     | silty CLAY, high plasticity, brown mottled orange/grey/red, with sand   | VSt                    |          | Inferred Red Bluff Sandstone Residual<br>Soil | - |
|   |  |  |   |                        |          |   |   |
| 1.0   |  |  |   |                        |          |   | - |
|   |  |  |   |                        |          |   |   |
|   | 1.30   |  | sandy CLAY, high plasticity, brown motified orange/grey/red, fine to coarse grained, angular to subangular sand, with silt  |                        |          |   |   |
|   | 1.30   |  | sandy CCAL, ingli pasicuty, utomi molieu orangelyetyreu, ine io Coase granieu, angular lo subangular sanu, mur sii  |                        |          |   |   |
| 1.5   |  | 6828<br>6828                           |   |                        |          | -   |   |
| pe -  |  | 2500<br>5500<br>5500                   |   |                        |          |   |   |
| Not Encountered   |  | 9800<br>9800                           |   |                        |          |   |   |
| Not E   |  | 9900<br>9900<br>9900                   |   |                        |          |   | - |
| 2.0 2   | 2.00   |  | Borehole Terminated @ 2m  |                        |          |   |   |
|   |  |  |   |                        |          |   | - |
|   |  |  |   |                        |          |   |   |
|   |  |  |   |                        |          |   | - |
| 2.5   |  |  |   |                        |          |   | _ |
|   |  |  |   |                        |          |   |   |
|   |  |  |   |                        |          |   | - |
|   |  |  |   |                        |          |   |   |
| 3.0   |  |  |   |                        |          |   | - |
|   |  |  |   |                        |          |   |   |
|   |  |  |   |                        |          |   |   |
|   |  |  |   |                        |          |   | - |
|   |  |  |   |                        |          |   |   |
| PENETRATION   |  | /on/ Soft                              | DENSITY         MOISTURE CONDITION         TEST NOTES           Fb         Friable         D         Dry         PP         Pocket Penetrorr  | I otor Test            | 1        | Groundwater Level                             |   |
| 1 2 3 4   | s s  | /ery Soft<br>Soft                      | VL Very Loose M Moist U50 Undisturbed Sam   | ple 50mm               | ı        | UTP Unable to Penetrate                       |   |
|   | St S   | Firm<br>Stiff<br>Vers Stiff            | MD Medium Dense w < PL Moist, dry of plastic limit D Disturbed Sample   |                        |          |   |   |
| no resistence   |  | /ery Stiff<br>Iard                     | D         Dense         w ≈ PL Moist, near plastic limit         Bs         Bulk Sample           VD         Very Dense         w > PL Moist, wet of plastic limit         E         Environmental st |                        |          |   |   |
| refusal<br>HAM_LOG_6.0 2019                               |  |  | w = LL Wet, near liquid limit HSV Hand Shear Van<br>w > LL Wet, wet of liquid limit Cu Undrained Shear  |                        |          | Sheet 1 of 1                                  |   |

|                                |                 |                | Gro                            | undSa   | ien           | ce           | 2          | ENGINEERING BOREHOLE LOG   | Borehole               | No       | BH22                                       |          |
|--------------------------------|-----------------|----------------|--------------------------------|---|---------------|--------------|------------|--|------------------------|----------|--|----------|
| Y                              |                 |                |                                |   |               |              |            |  | JOB No :               |          | G4589.1                                    |          |
| CLIENT:<br>PROJECT:            |                 | F              | ive Farms E                    | erty Group Pty Ltd<br>state Site Classificati | on - Stag     | e 1          |            |  | TEST DA                | BY:      | 13-Dec-21<br>JSP                           |          |
| LOCATION:<br>TEST LOCA         | TION:           |                | Clyde North<br>Refer to site p | plan, Appendix A                              |               |              |            |  | CHECKE<br>VANE SH      |          | CC<br>N/A                                  |          |
| DRILL METH                     |                 |                | ATS Drill Ri<br>100mm          | g   |               |              |            | EASTING: ND<br>NORTHING: ND  | INCLINAT               |          | 90°<br>ND                                  |          |
|                                | DRILI           |                |                                | SAMPLING                                      | ;             |              |            | FIELD MATERIAL DESCRIPTION   |                        |          |  |          |
| C PENERTRATION<br>C RESISTANCE | 4 AATER         | DEPTH (metres) | DEPTH (RL)                     | SAMPLE OR FIELD TEST                          | RECOVERED     | GRAPHIC LOG  | USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION   | CONSISTENCY<br>DENSITY | MOISTURE | ADDITIONAL OBSERVATIONS                    |          |
|                                |                 | 0.0            |                                |   |               |              | CI-CH      | FILL: sandy CLAY, medium to high plasticity, brown mottled orange/grey, fine to coarse grained, angular to subangular<br>and, with silt, trace gravel  | St                     | w≈PL     | . Controlled Fill                          | -        |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | =        |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  |          |
|                                |                 |                |                                | S8  | U63           |              |            |  |                        |          |  | =        |
|                                |                 | 0.5            |                                |   |               |              |            |  |                        |          |  | <u> </u> |
|                                |                 |                | 0.60                           |   | -             | ***          | SM         | silty SAND, fine to coarse grained, angular to subangular, grey, low plasticity silt, trace clay   | L - MD                 | M        | Inferred Inferred Alluvial Deposits        |          |
|                                |                 |                | 0.70                           |   |               |              | СН         | silty CLAY, high plasticity, brown mottled orange/grey/red, with sand  | VSt                    | w ≈ PL   | Inferred Red Bluff Sandstone Residual Soil | 1_       |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | -        |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  |          |
|                                |                 | 1.0            |                                |   |               |              |            |  |                        |          |  |          |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | -        |
|                                |                 |                | 1.30                           |   |               |              |            | sandy CLAY, high plasticity, brown mottled orange/grey/red, fine to coarse grained, angular to subangular sand, with si  | t                      |          |  | -        |
|                                |                 |                |                                |   |               | ***<br>***   |            |  |                        |          |  |          |
|                                |                 | 1.5            |                                |   |               |              |            |  |                        |          |  | -        |
|                                | red             |                |                                |   |               |              |            |  |                        |          |  | -        |
|                                | Not Encountered |                |                                |   |               | 9722<br>9722 |            |  |                        |          |  |          |
|                                | Not Er          |                |                                |   |               |              |            |  |                        |          |  | =        |
|                                | -               | 2.0            | 2.00                           |   | +             |              |            | Borehole Terminated @ 2m   |                        |          |  | -        |
|                                |                 |                |                                |   |               |              |            | , and the second s |                        |          |  |          |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | _        |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | -        |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | -        |
|                                |                 | 2.5            |                                |   |               |              |            |  |                        |          |  |          |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | -        |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | -        |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | =        |
|                                |                 | 3.0            |                                |   |               |              |            |  |                        |          |  |          |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  |          |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | =        |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | =        |
|                                |                 |                |                                |   |               |              |            |  |                        |          |  | =        |
| PENETRATI                      | ON              | 3.5            |                                | CONSISTENCY                                   |               |              |            | DENSITY MOISTURE CONDITION TEST NOTES  |                        |          |  | <u> </u> |
|                                | 1 2             | 3 4            |                                | Vs<br>S                                       | Very<br>Soft  | Soft         |            | Fb Friable D Dry PP Pocket Penetro   |                        |          | Groundwater Level                          |          |
| P                              | 5               |                |                                | F   | Firm          |              |            | L Loose W Wet U63 Undisturbed Sa   | mple 63mr              |          | ore unable to Penetrate                    |          |
| no re                          | esistence       | Ļ              |                                | St<br>VSt                                     | Stiff<br>Very | Stiff        |            | MD         Medium Dense         w < PL Moist, dry of plastic limit         D         Disturbed Sam           D         Dense         w ≈ PL Moist, near plastic limit         Bs         Bulk Sample   |                        |          |  |          |
|                                |                 |                | usal                           | н   | Hard          |              |            | VD Very Dense $w > PL$ Moist, wet of plastic limit E Environmental $w \approx LL$ Wet, near liquid limit HSV Hand Shear Va   |                        |          |  |          |
| HAM                            | LOG_6           |                |                                |   |               |              |            | w > LL Wet, wet of liquid limit Cu Undrained She   |                        | 1        | Sheet 1 of 1                               |          |

|                                |                 |                 | Gro                            | ound Science ENGINEERING BOREHOLE LOG           |               |              |            | OG   | Borehole                            | No                     | BH23     |   |                    |
|--------------------------------|-----------------|-----------------|--------------------------------|---|---------------|--------------|------------|--|-------------------------------------|------------------------|----------|---|--------------------|
| Y                              |                 |                 |                                |   |               |              |            |  |                                     | JOB No :               |          | G4589.1                                       |                    |
| CLIENT:<br>PROJECT:            |                 |                 |                                | erty Group Pty Ltd<br>state Site Classification | on - Stag     | e 1          |            |  |                                     | TEST DAT               |          | 13-Dec-21<br>JSP                              |                    |
| LOCATION:<br>TEST LOCATI       | ON:             |                 | Olyde North<br>Refer to site p | plan, Appendix A                                |               |              |            |  |                                     | CHECKED                |          | CC<br>N/A                                     |                    |
| DRILL METHO                    | DD:             |                 | ATS Drill Ri<br>100mm          |   |               |              |            | ASTING: ND<br>Iorthing: ND   |                                     | INCLINAT               | ION:     | 90°<br>ND                                     |                    |
|                                | DRILL           |                 | 1.001                          | SAMPLING  | 1             |              |            | FIELD MATERIAL D   |                                     |                        | 1        | 1   |                    |
| C PENERTRATION<br>C RESISTANCE | WATER           | DEPTH (metres)  | DEPTH (RL)                     | SAMPLE OR FIELD TEST                            | RECOVERED     | GRAPHIC LOG  | USC SYMBOL | SOIL / ROCK MATERIAL DESCRIPTION   |                                     | CONSISTENCY<br>DENSITY | MOISTURE | ADDITIONAL OBSERVATIONS                       |                    |
|                                | Ī               | 0.0             |                                |   |               |              | CI-CH      | ILL: sandy CLAY, medium to high plasticity, brown mottled orange/grey, fine to coarse grained,<br>and, with silt, trace gravel | angular to subangular               | St                     | w≈PL     | Controlled Fill                               | -                  |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   |                    |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | $\left  - \right $ |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | -                  |
|                                |                 | 0.5             |                                |   |               |              |            |  |                                     |                        |          |   |                    |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | -                  |
|                                |                 |                 | 0.65                           |   |               |              | SM         | ilty SAND, fine to coarse grained, angular to subangular, grey, low plasticity silt, trace clay                                |                                     | L - MD                 | М        | Inferred Inferred Alluvial Deposits           | ] _                |
|                                |                 |                 | 0.85                           |   |               |              | СН         | ilty CLAY, high plasticity, brown mottled orange/grey/red, with sand   |                                     | VSt                    | w ≈ PL   |   |                    |
|                                |                 |                 | 0.00                           |   |               |              | СП         | ity CLAY, nigh plasticity, brown motiled orange/grey/red, with sand  |                                     | Või                    | W≈PL     | Inferred Red Bluff Sandstone Residual<br>Soil | =                  |
|                                |                 | 1.0             |                                |   |               |              |            |  |                                     |                        |          |   | -                  |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   |                    |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   |                    |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | -                  |
|                                |                 | 1.5             | 1.50                           |   |               |              |            | andy CLAY, high plasticity, brown mottled orange/grey/red, fine to coarse grained, angular to su                               | hannular sand with silt             |                        |          |   |                    |
|                                |                 | <sup>~~</sup> - | 1.50                           |   |               |              |            | andy GEAT, migh plasterity, down motied orangeligieynes, me to deales grained, angular to a                                    | utangular aana, war ait             |                        |          |   | =                  |
|                                | ntered          |                 |                                |   |               | 112<br>112   |            |  |                                     |                        |          |   | -                  |
|                                | Not Encountered |                 |                                |   |               | 982<br>982   |            |  |                                     |                        |          |   |                    |
|                                | No              |                 |                                |   |               |              |            |  |                                     |                        |          |   | =                  |
|                                | 1               | 2.0             | 2.00                           |   |               | <b>*</b> *** |            | lorehole Terminated @ 2m   |                                     |                        |          |   | -                  |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | -                  |
|                                |                 | -]              |                                |   |               |              |            |  |                                     |                        |          |   | -                  |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   |                    |
|                                |                 | 2.5             |                                |   |               |              |            |  |                                     |                        |          |   |                    |
|                                |                 | -               |                                |   |               |              |            |  |                                     |                        |          |   | =                  |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | =                  |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | -                  |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   |                    |
|                                |                 | 3.0             |                                |   |               |              | 1          |  |                                     |                        |          |   |                    |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | _                  |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | =                  |
|                                |                 |                 |                                |   |               |              | 1          |  |                                     |                        |          |   | =                  |
|                                |                 |                 |                                |   |               |              |            |  |                                     |                        |          |   | -                  |
| PENETRATIO                     | N               | 3.5             |                                | CONSISTENCY                                     |               |              |            | NENSITY MOISTURE CONDITION TEST NO   | TES                                 |                        |          |   |                    |
|                                | 1 2             | 3 4             |                                | Vs  | Very          | Soft         |            | Fb Friable D Dry PP  | Pocket Penetrom                     |                        |          | Groundwater Level                             |                    |
| P                              | 5               | . +             |                                | S<br>F  | Soft<br>Firm  |              |            | VL Very Loose M Moist U50<br>L Loose W Wet U63   | Undisturbed Sam<br>Undisturbed Sam  | ple 63mn               |          | UTP Unable to Penetrate                       |                    |
|                                | istence         |                 |                                | St<br>VSt                                       | Stiff<br>Very | Stiff        |            |  | Disturbed Sample<br>Bulk Sample     |                        |          |   |                    |
| no res                         |                 |                 |                                | н   | Hard          |              |            | VD Very Dense $w > PL$ Moist, wet of plastic limit E<br>$w \approx LL$ Wet, near liquid limit HSV                              | Environmental sa<br>Hand Shear Vane |                        |          |   |                    |
| НАМ                            | LOG A           | refu<br>.0 2019 | lbou                           |   |               |              |            | w > LL Wet, wet of liquid limit Cu   | Undrained Shear                     |                        |          | Sheet 1 of 1                                  |                    |

## APPENDIX C

Laboratory Test Results

#### **Material Test Report**

| Report Number:    | G4589.1-1   |
|-------------------|---|
| Issue Number:     | 1   |
| Date Issued:      | 13/01/2022  |
| Client:           | Frasers Property Australia c/- Beveridge Williams |
|                   | 1 Glenferrie Road, Malvern VIC 3144               |
| Contact:          | Craig Muse  |
| Project Number:   | G4589.1   |
| Project Name:     | Five Farms Residential Development - Stage 1      |
| Project Location: | Clyde North                                       |
| Work Request:     | 6393  |
| Sample Number:    | 4589.1-S4   |
| Date Sampled:     | 15/12/2021  |
| Dates Tested:     | 15/12/2021 - 11/01/2022                           |
| Sampling Method:  | AS 1289.1.2.1 6.5.3 - Power auger drilling        |
| Sample Location:  | BH13 (0.5 - 0.75m)                                |
| Material:         | CLAY, low plasticity, brown                       |

| Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1) |                    | Min | Max |
|--|--------------------|-----|-----|
| Sample History                                 | Oven Dried         |     |     |
| Preparation Method                             | Dry Sieve          |     |     |
| Liquid Limit (%)                               | 34                 |     |     |
| Plastic Limit (%)                              | 12                 |     |     |
| Plasticity Index (%)                           | 22                 |     |     |
| Linear Shrinkage (AS1289 3.4.1)                |                    | Min | Max |
| Moisture Condition Determined By               | AS 1289.3.1.2      |     |     |
| Linear Shrinkage (%)                           | 8.0                |     |     |
| Cracking Crumbling Curling                     | Cracking & Curling |     |     |

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Ground Science Pty Ltd Ground Science Laboratory 13 Brock Street Thomastown Victoria 3074 Phone: (03) 9464 4617 Email: pelin@groundscience.com.au Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Pelin Erden gs-pelin NATA Accredited Laboratory Number: 15055

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#### **Material Test Report**

| Report Number:    | G4589.1-1   |
|-------------------|---|
| Issue Number:     | 1   |
| Date Issued:      | 13/01/2022  |
| Client:           | Frasers Property Australia c/- Beveridge Williams |
|                   | 1 Glenferrie Road, Malvern VIC 3144               |
| Contact:          | Craig Muse  |
| Project Number:   | G4589.1   |
| Project Name:     | Five Farms Residential Development - Stage 1      |
| Project Location: | Clyde North                                       |
| Work Request:     | 6393  |
| Sample Number:    | 4589.1-S7   |
| Date Sampled:     | 15/12/2021  |
| Dates Tested:     | 15/12/2021 - 11/01/2022                           |
| Sampling Method:  | AS 1289.1.2.1 6.5.3 - Power auger drilling        |
| Sample Location:  | BH20 (1 - 1.5m)                                   |
| Material:         | CLAY, medium plasticity, brown                    |

| Atterberg Limit (AS1289 3.1.2 & 3.2.1 & 3.3.1) |                |     | Max |
|--|----------------|-----|-----|
| Sample History                                 | Oven Dried     |     |     |
| Preparation Method                             | Dry Sieve      |     |     |
| Liquid Limit (%)                               | 38             |     |     |
| Plastic Limit (%)                              | 18             |     |     |
| Plasticity Index (%)                           | 20             |     |     |
| Linear Shrinkage (AS1289 3.4.1)                |                | Min | Max |
| Moisture Condition Determined By               | AS 1289.3.1.2  |     |     |
| Linear Shrinkage (%)                           | 9.5            |     |     |
| Cracking Crumbling Curling                     | rling Cracking |     |     |

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#### **Material Test Report**

| Report Number:<br>Issue Number:<br>Date Issued:<br>Client: | G4589.1-1<br>1<br>13/01/2022<br>Frasers Property Australia c/- Beveridge Williams<br>1 Glenferrie Road, Malvern VIC 3144 |
|--|--|
| Contact:   | Craig Muse   |
| Project Number:  | G4589.1  |
| Project Name:  | Five Farms Residential Development - Stage 1   |
| Project Location:  | Clyde North  |
| Work Request:  | 6393   |
| Dates Tested:  | 15/12/2021 - 17/12/2021  |



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Has

| Shrink Swell Index AS 1289 7.1.1 & 2.1.1 |  |   |  |   |  |
|--|--|---|--|---|--|
| Sample Number                            | 4589.1-S1  | 4589.1-S2   | 4589.1-S3  | 4589.1-S5   |  |
| Date Sampled                             | 15/12/2021   | 15/12/2021  | 15/12/2021   | 15/12/2021  |  |
| Date Tested                              | 16/12/2021   | 16/12/2021  | 16/12/2021   | 17/12/2021  |  |
| Material Source                          | **   | **  | **   | **  |  |
| Sample Location                          | BH2<br>(0.5 - 1m)  | BH6<br>(1 - 1.4m)   | BH9<br>(1 - 1.3m)  | BH16<br>(0.5 - 0.9m)  |  |
| Inert Material Estimate (%)              | 2  | 0   | 2  | 3   |  |
| Pocket Penetrometer before (kPa)         | 110  | 150   | 150  | 175   |  |
| Pocket Penetrometer after (kPa)          | 110  | 160   | 140  | 220   |  |
| Shrinkage Moisture Content (%)           | 16.8   | 31.6  | 26.7   | 16.1  |  |
| Shrinkage (%)                            | 2.0  | 6.8   | 4.9  | 5.8   |  |
| Swell Moisture Content Before (%)        | 17.5   | 32.5  | 17.0   | 8.6   |  |
| Swell Moisture Content After (%)         | 19.8   | 33.2  | 25.4   | 15.9  |  |
| Swell (%)                                | -0.1   | 1.0   | 2.8  | -0.2  |  |
| Shrink Swell Index Iss (%)               | 1.1  | 4.0   | 3.5  | 3.2   |  |
| Visual Description                       | sandy CLAY,<br>medium plasticity,<br>brown, trace gravel | silty CLAY, medium<br>to high plasticity,<br>brown, mottled<br>grey, orange | sandy CLAY,<br>medium to high<br>plasticity, brown,<br>mottled grey,<br>orange | sandy CLAY, low to<br>medium plasticity,<br>brown, trace gravel |  |
| Cracking                                 | MC   | SC  | SC   | SC  |  |
| Crumbling                                | No   | No  | No   | No  |  |
| Remarks                                  | **   | **  | **   | **  |  |

Shrink Swell Index (Iss) reported as the percentage vertical strain per pF change in suction.

Cracking Terminology: UC Uncracked, SC Slightly Cracked, MC Moderately Cracked, HC Highly Cracked, FR Fragmented.

NATA Accreditation does not cover the performance of pocket penetrometer readings.

Report Number: G4589.1-1