



**J K WILLIAMS CONTRACTING PTY LTD**

**PROPOSED CADDENS HILL RESIDENTIAL SUBDIVISION – STAGE 1  
O'CONNELL LANE, CADDENS**

**SITE CLASSIFICATION**

**REPORT NO 8574/3-AA    07 JULY 2017**

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Job No: 8574/3  
Our Ref: 8574/3-AA  
07 July 2017

J K Williams Contracting Pty Ltd  
44 Jack Williams Drive  
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Email: [SHartog@jkw.com.au](mailto:SHartog@jkw.com.au)

Attention: Mr S Hartog

Dear Sir

re: **Proposed Caddens Hill Residential Subdivision – Stage 1**  
**O'Connell Lane, Caddens**  
**Site Classification Report**

Please find herewith a site classification report for proposed dwellings to be located at the above subdivision. A total of ninety six (96) lots are covered in this report (Lots 1 to 78 and 82 to 99).

This report contains information on surface and sub-surface conditions encountered at the site, together with an assessment of the site classifications in accordance with Australian Standard AS2870-2011 "Residential Slabs & Footings".

If you have any questions, please do not hesitate to contact the undersigned.

Yours faithfully  
GEOTECH TESTING PTY LTD

A handwritten signature in blue ink, appearing to read "Ariful", is written over a light blue circular stamp.

DR MD ARIFUL ISLAM  
Senior Geotechnical Engineer

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8574/3-AA  
Stage 1 - O'Connell Lane, Caddens

## 1.0 INTRODUCTION

This report provides results of a geotechnical investigation for the site classification of proposed lots at O'Connell Lane, Caddens. The investigation was carried out in accordance with Geotech Testing Pty Ltd fee proposal (Our Ref: ER.sf/Q1392) dated 24 November 2016. A total of ninety six (96) lots are covered in this report (Lots 1 to 78 and 82 to 99).

Site classification in accordance with AS2870-2011 is only applicable for design of footing systems for a single dwelling, house, townhouse or similar structure that would be detached or separated by a party wall or common wall including buildings classified as Class 1 and Class 10a in the Building Code of Australia (BCA). AS2870 is not suitable for dwellings situated vertically above or below another dwelling. Therefore, a geotechnical investigation would be required for other dwellings to be classified in accordance with the BCA.

It is understood that the proposed dwellings are to be of brick veneer construction and that wall loadings are expected to be in the range of 15kN/m to 50kN/m. The maximum working load (safe bearing pressure) would be in the order of 50kPa for ground supported floor slabs and 100kPa for strip and pad footings (AS2870-2011).

## 2.0 FIELD WORK

The site investigation was carried out between 21 and 22 June 2017, under the supervision of a Geotechnical Engineer from the company and consisted of excavating 41 test pits (TP1 to TP41), using an excavator available at site. The test pits were terminated at a depth of 1.5m or refusal on bedrock and their approximate locations are indicated on the attached Drawing No 8574/3-AA1. The brief descriptions of materials encountered in the test pits are provided in the attached Table A.

## 3.0 SITE CONDITIONS

### 3.1 Site Description

The site is bound by rural properties to the north, other proposed Caddens Hill Subdivision stages to the east, newly developed residential houses to the south and O'Connell Lane to the west. Topography of the site is generally flat. At the time of investigation, earthworks for all lots had been completed and construction of internal roads was underway.

### 3.2 Sub-Surface Conditions

Sub-surface conditions encountered in the test pits are detailed in the attached Table A and summarised below in Table 1.

Table 1: Sub-surface Conditions

Test Pit	Termination Depth (m)	Fill (m)	Natural (m)	Bedrock (m)
TP1	1.5	0.0 - 1.5	NE	NE
TP2	1.5	0.0 - 1.5	NE	NE
TP3	1.2	0.0 - 1.0	NE	1.0 - 1.2
TP4	1.5	0.0 - 0.7	0.7 - 1.5	NE
TP5	1.5	0.0 - 1.5	NE	NE
TP6	1.5	0.0 - 0.5	0.5 - 1.5	NE
TP7	1.5	0.0 - 0.7	0.7 - 1.5	NE
TP8	0.7	0.0 - 0.7	NE	NE
TP9	0.1		NE	0.0 - 0.1
TP10	0.4	0.0 - 0.3	NE	0.3 - 0.4

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Test Pit	Termination Depth (m)	Fill (m)	Natural (m)	Bedrock (m)
TP11	0.4	0.0 - 0.3	NE	0.3 - 0.4
TP12	0.4	0.0 - 0.3	NE	0.3 - 0.4
TP13	0.3	0.0 - 0.2	NE	0.2 - 0.3
TP14	0.6	0.0 - 0.4	0.4 - 0.5	0.5 - 0.6
TP15	0.1	NE	NE	0.0 - 0.1
TP16	1.5	NE	0.0 - 1.5	NE
TP17	1.5	0.0 - 0.2	0.2 - 1.5	NE
TP18	0.2	0.0 - 0.1	NE	0.1 - 0.2
TP19	0.2	0.0 - 0.1	NE	0.1 - 0.2
TP20	0.2	0.0 - 0.1	NE	0.1 - 0.2
TP21	0.6	0.0 - 0.5	NE	0.5 - 0.6
TP22	0.2	0.0 - 0.1	NE	0.1 - 0.2
TP23	0.2	0.0 - 0.1	NE	0.1 - 0.2
TP24	0.3	0.0 - 0.2	NE	0.2 - 0.3
TP25	0.4	0.0 - 0.1	0.1 - 0.3	0.3 - 0.4
TP26	1.5	NE	0.0 - 1.5	NE
TP27	1.5	0.0 - 1.5	NE	NE
TP28	1.5	0.0 - 1.3	1.3 - 1.5	NE
TP29	1.5	0.0 - 1.5	NE	NE
TP30	1.5	0.0 - 1.5	NE	NE
TP31	1.5	0.0 - 1.5	NE	NE
TP32	0.4	0.0 - 0.3	NE	0.3 - 0.4
TP33	0.7	0.0 - 0.7	NE	NE
TP34	1.5	0.0 - 0.2	0.2 - 1.5	NE
TP35	1.5	0.0 - 0.2	0.2 - 1.5	NE
TP36	1.5	0.0 - 0.6	0.6 - 1.5	NE
TP37	1.1	0.0 - 1.0	NE	1.0 - 1.1
TP38	1.5	0.0 - 1.5	NE	NE
TP39	1.5	0.0 - 1.5	NE	NE
TP40	1.5	0.0 - 1.5	NE	NE
TP41	1.5	0.0 - 1.5	NE	NE

NE: Not encountered to the termination depth

The investigation revealed the following generalised sub-surface profile:

<b>Fill</b>	Silty Clay, low plasticity, grey Gravelly Silty Clay, low plasticity, grey, with shale and sandstone fragments Shaley Clay, low to medium plasticity, grey and brown, with shale fragments and sandstone boulders
<b>Natural</b>	Silty CLAY, medium plasticity, yellow brown, with ironstone gravels Shaley CLAY, low plasticity, grey and brown, with gravels and shale fragments Silty CLAY, medium to high plasticity, red brown
<b>Bedrock</b>	SHALE, brown and grey, extremely weathered, very low strength SANDSTONE, medium grained, brown, moderately weathered, low to medium strength

### Geotechnical Model

Based on information presented in Table 1, the sub-surface profile within the proposed development is anticipated to comprise a sequence of fill and/or natural soil followed by shale/sandstone bedrock. For details of the subsurface conditions encountered at the site the reader should refer to the attached Table A.

### Groundwater Condition

Groundwater was not observed in the test pits during the short time that they remained open. It must be noted that fluctuations in the level of groundwater might occur due to variations in rainfall, temperature, and/or other factors not evident during investigation.

## 4.0 LABORATORY TESTING

During the course of investigation three undisturbed ( $U_{50}$ ) samples were recovered from selected test pits to conduct Shrink/Swell Index ( $I_{ss}$ ) tests in accordance with Australian Standard (AS1289 7.1.1). The purpose of the tests was to assess soil reactivity to variations in moisture content. The detailed tests results are attached at the end of this report and summarised below:

Table 2 – Laboratory Tests Results

Test Pit	Depth (m)	Material Description	$I_{ss}$ (% $d_p F$ )
TP4	0.7 - 1.0	(CI) Silty CLAY, medium plasticity, yellow-brown, trace of fine to medium gravel	2.1
TP17	0.5 - 0.8	(CI) Silty CLAY, medium plasticity, red-brown	1.7
TP40	0.5 - 0.8	FILL: Silty Clay, low plasticity, grey	1.2

## 5.0 DISCUSSION & RECOMMENDATIONS

### 5.1 Assessment of Fill

The test pits excavated at the site indicated the fill to be well compacted. No non-soil or deleterious matters were encountered in the test pits. Geotech Testing was commissioned to provide Level 1 Supervision for the bulk earthwork. The fill material at the site was placed in layers and compacted, using impact roller. Adequate number of site fill testing was conducted and reported separately (Our Ref: 8574/1-AA dated 16 June 2017). Therefore, based on the subsurface conditions encountered in the test pits and the previous compaction test results, the fill material at site was assessed as controlled fill.

### 5.2 Site Classification

Based on the above information, site classifications to AS2870-2011 are summarised in Appendix B. It should be noted that lots containing more than 400mm of clay fill (assessed as controlled fill) would originally be classified as Class P in accordance with AS2870-2011. However, based on the results of this investigation, which included laboratory testing, the lots are classified as detailed in Appendix B.

It is recommended that footings for the proposed dwellings are founded on the same stratum, below any topsoil, loose or deleterious material, to minimise the potential for differential movement. In the event that rock is encountered in any portion of the footing excavations, the remainder of the foundations must be supported on rock to ensure even bearing.

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The classifications presented in Appendix B of this report are applicable to the Lots at the date of conducting the investigation, being 21 June 2017 and are made on the following assumptions:

- The design and construction requirements of AS2870 must be followed.
- The recommendations for foundation performance and site maintenance set out in Appendix B of AS2870 must be followed.
- The proposed dwellings must be in accordance with AS2870. A detailed geotechnical investigation will be required for other dwellings to be classified in accordance with the BCA.

It is recommended that house owners are made aware of recommendations in the CSIRO publication, "Guide to Home Owners on Foundation Maintenance and Footing Performance" and AS2870 Appendix H of AS2871-2011.

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## **APPENDIX A**

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### **TABLE A (Summary of Test Pits)**

#### **TEST PIT LOCATION PLAN (Drawing No 8574/3-AA1)**



**TABLE A**

Job No: 8574/3  
Our Ref: 8574/3-AA

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP1	0-1.5		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
TP2	0-0.3		FILL: Silty Clay, low plasticity, grey, well compacted
	0.3-1.5		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
TP3	0-0.4		FILL: Silty Clay, low plasticity, grey, well compacted
	0.4-1.0		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	1.0-1.2		SHALE, brown and grey, extremely weathered, very low strength
TP4	0-0.2		FILL: Silty Clay, low plasticity, grey, well compacted
	0.2-0.7		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	0.7-1.5	U <sub>50</sub> 0.7-1.0	(CI) Silty CLAY, medium plasticity, yellow brown, with inclusion of ironstone gravel, M≤PL, St
TP5	0-1.5		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
TP6	0-0.5		FILL: Silty Clay, low plasticity, grey, well compacted
	0.5-1.0		(CI) Silty CLAY, medium plasticity, yellow brown, with inclusion of ironstone gravel, M≤PL, St
	1.0-1.5		(CI) Shaley CLAY, low plasticity, grey and brown, with inclusion of gravel and shale fragments, M≤PL, VSt

**TABLE A**

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP7	0-0.7		FILL: Silty Clay, low plasticity, grey, well compacted
	0.7-0.9		(CI-CH) Silty CLAY, medium to high plasticity, red brown, M <sub>z</sub> PL, St
	0.9-1.2		(CI) Silty CLAY, medium plasticity, yellow brown, with inclusion of ironstone gravel, M <sub>s</sub> PL, St
	1.2-1.5		(CI) Shaley CLAY, low plasticity, grey and brown, with inclusion of gravel and shale fragments, M <sub>s</sub> PL, VSt
TP8	0-0.7		FILL: Gravelly Silty Clay, low plasticity, grey, with inclusion of shale and sandstone, well compacted
	0.7		Refusal on Sandstone boulders
TP9	0-0.1		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP10	0-0.3		FILL: Gravelly Silty Clay, low plasticity, grey, with inclusion of shale and sandstone, well compacted
	0.3-0.4		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP11	0-0.3		FILL: Gravelly Silty Clay, low plasticity, grey, with inclusion of shale and sandstone, well compacted
	0.3-0.4		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP12	0-0.3		FILL: Silty Clay, low plasticity, grey, well compacted
	0.3-0.4		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP13	0-0.2		FILL: Silty Clay, low plasticity, grey, well compacted
	0.2-0.3		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP14	0-0.4		FILL: Silty Clay, low plasticity, grey, well compacted
	0.4-0.5		(CI) Shaley CLAY, low plasticity, grey and brown, with inclusion of gravel and shale fragments, M <sub>s</sub> PL, VSt
	0.5-0.6		SHALE, brown and grey, extremely weathered, very low strength

**TABLE A**

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP15	0-0.1	U <sub>50</sub> 0.5-0.8	SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP16	0-0.2		(CI) Silty CLAY, medium plasticity, yellow brown, with inclusion of ironstone gravel, M <sub>s</sub> ≤PL, St
	0.2-1.5		(CI) Shaley CLAY, medium plasticity, yellow brown, with inclusion of shale fragments, M <sub>s</sub> ≤PL, St-VSt
TP17	0-0.2		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	0.2-1.5		(CI-CH) Silty CLAY, medium to high plasticity, red brown, M <sub>s</sub> ≥PL, St
TP18	0-0.1		FILL: Silty Clay, low plasticity, grey, well compacted
	0.1-0.2		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP19	0-0.1		FILL: Silty Clay, low plasticity, grey, well compacted
	0.1-0.2		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP20	0-0.1		FILL: Silty Clay, low plasticity, grey, well compacted
	0.1-0.2		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP21	0-0.5		FILL: Silty Clay, low plasticity, grey, well compacted
	0.5-0.6		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP22	0-0.1		FILL: Silty Clay, low plasticity, grey, well compacted
	0.1-0.2		SHALE, brown and grey, extremely weathered, very low strength
TP23	0-0.1		FILL: Silty Clay, low plasticity, grey, well compacted
	0.1-0.2		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength

**TABLE A**

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP24	0-0.2		FILL: Silty Clay, low plasticity, grey, well compacted
	0.2-0.3		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP25	0-0.1		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	0.1-0.3		(CI) Shaley CLAY, low plasticity, grey and brown, with inclusion of gravel and shale fragments, M <sub>5</sub> PL, VSt
	0.3-0.4		SHALE, brown and grey, extremely weathered, very low strength
TP26	0-1.2		(CI) Silty CLAY, medium plasticity, yellow brown, with inclusion of ironstone gravel, M <sub>5</sub> PL, St
	1.2-1.5		(CI) Shaley CLAY, medium plasticity, yellow brown, with inclusion of shale fragments, M <sub>5</sub> PL, St-VSt
TP27	0-1.5		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
TP28	0-0.2		FILL: Silty Clay, low plasticity, grey, well compacted
	0.2-1.3		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	1.3-1.5		(CI) Silty CLAY, medium plasticity, yellow brown, with inclusion of ironstone gravel, M <sub>5</sub> PL, St
TP29	0-0.5		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	0.5-1.5		FILL: Gravelly Silty Clay, low plasticity, grey, with inclusion of shale and sandstone, well compacted
TP30	0-0.2		FILL: Silty Clay, low plasticity, grey, well compacted
	0.2-1.5		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted

**TABLE A**

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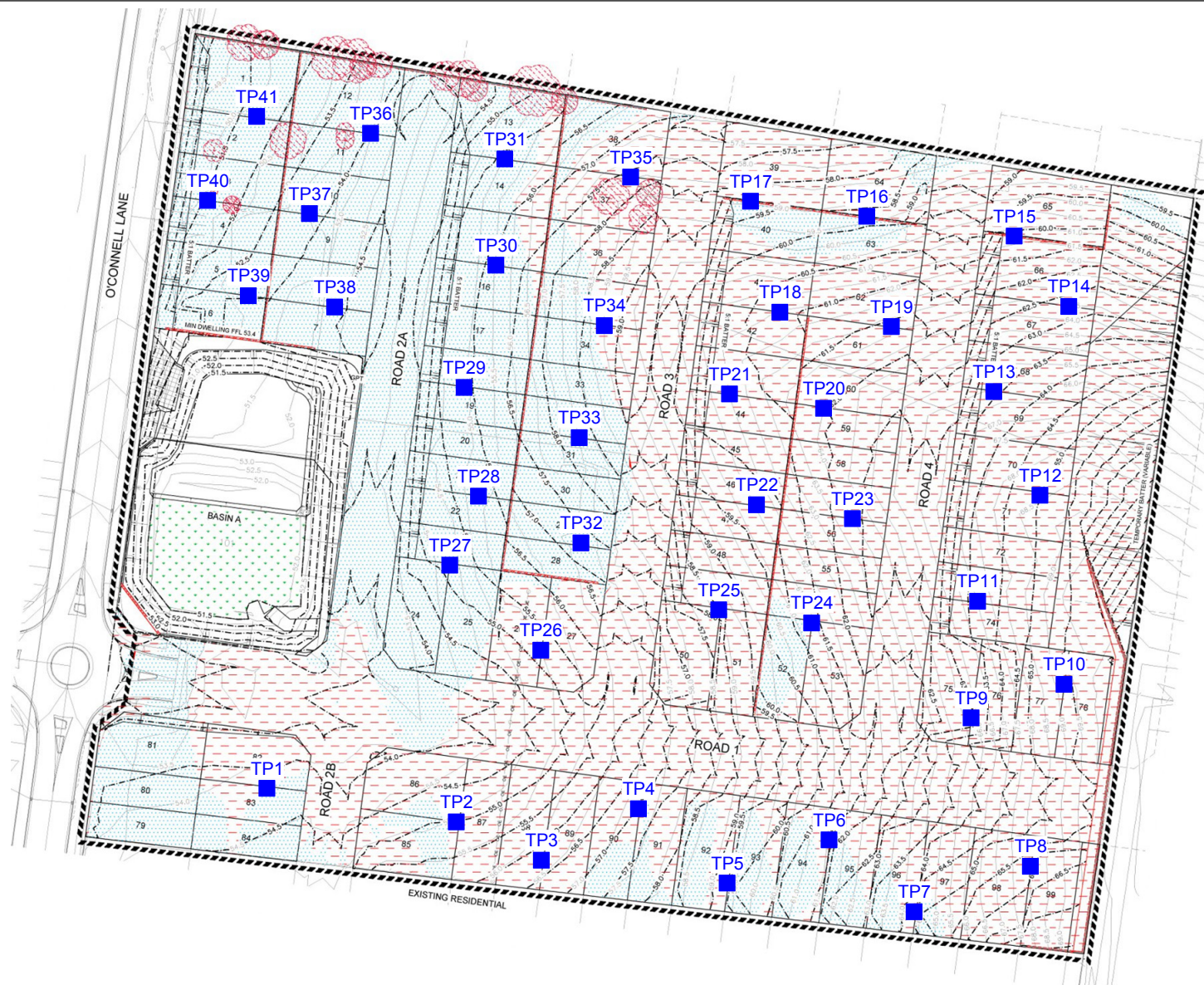
TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP31	0-1.5		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
TP32	0-0.3		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	0.3-0.4		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength
TP33	0-0.7		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	0.7		Refusal on Sandstone boulder
TP34	0-0.2		FILL: Silty Clay, low plasticity, grey, well compacted
	0.2-1.5		(CI) Shaley CLAY, medium plasticity, yellow brown, with inclusion of shale fragments, M <sub>s</sub> PL, St-VSt
TP35	0-0.2		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	0.2-0.6		(CI) Shaley CLAY, medium plasticity, yellow brown, with inclusion of shale fragments, M <sub>s</sub> PL, St-VSt
	0.6-1.5		(CI) Shaley CLAY, low plasticity, grey and brown, with inclusion of gravel and shale fragments, M <sub>s</sub> PL, VSt
TP36	0-0.6		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	0.6-1.5		(CI-CH) Silty CLAY, medium to high plasticity, red brown, M <sub>s</sub> PL, St
TP37	0-0.4		FILL: Silty Clay, low plasticity, grey, well compacted
	0.4-1.0		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
	1.0-1.1		SANDSTONE, medium grained, brown, moderately weathered, low to medium strength

**TABLE A**

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP38	0-0.3	U <sub>50</sub> 0.5-0.8	FILL: Silty Clay, low plasticity, grey, well compacted
	0.3-1.5		FILL: Gravelly Silty Clay, low plasticity, grey, with inclusion of shale and sandstone, well compacted
TP39	0-1.5		FILL: Shaley Clay, low to medium plasticity, grey and brown, with inclusion of shale fragments and sandstone boulders, well compacted
TP40	0-1.5		FILL: Silty Clay, low plasticity, grey, well compacted
TP41	0-1.5		FILL: Silty Clay, low plasticity, grey, well compacted



# LEGEND

■ Test Pit



34 Borec Road  
Penrith  
NSW 2750  
ABN 71 076 676 321

Ph: 02 4722 2744  
Fx: 02 4722 2777  
www.geotech.com.au  
e-mail: info@geotech.com.au

## NOTES

- Site features are indicative and are not to scale.
- This drawing has been produced using a base plan provided by others to which additional information e.g test pits, borehole locations or notes have been added. Some or all of the plan may not be relevant at the time of producing this drawing

J K Williams Contracting Pty Ltd  
Proposed Caddens Hill Residential Subdivision  
O'Connell Lane  
Caddens

Test Pit Locations

Drawing No: 8574/3-AA1  
Job No: 8574/3  
Drawn By: MH  
Date: 23 June 2017  
Checked By: AI

File No: 8574-3  
Layers: 0, AA1

## **APPENDIX B**

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### **SUMMARY OF SITE CLASSIFICATIONS**

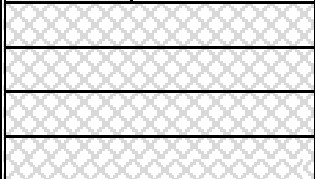


Job No: 8574/3  
Our Ref: 8574/3-AA

**TABLE B**

**SUMMARY OF SITE CLASSIFICATIONS**

**Proposed Caddens Hill Residential Subdivision – Stage 1  
O'Connell Lane, Caddens**

Lot	Site Classification	Lot	Site Classification	Lot	Site Classification	Lot	Site Classification
1	M	26	M	51	A	76	A
2	M	27	S	52	S	77	A
3	M	28	M	53	A	78	A
4	M	29	M	54	A	82	M
5	M	30	M	55	A	83	M
6	M	31	M	56	A	84	M
7	M	32	M	57	A	85	M
8	M	33	M	58	A	86	M
9	M	34	M	59	A	87	M
10	M	35	M	60	A	88	S
11	M	36	M	61	A	89	S
12	M	37	M	62	A	90	M
13	M	38	M	63	M	91	M
14	M	39	M	64	M	92	M
15	M	40	M	65	A	93	M
16	M	41	A	66	A	94	M
17	M	42	A	67	A	95	M
18	M	43	A	68	A	96	M
19	M	44	A	69	A	97	M
20	M	45	A	70	A	98	S
21	M	46	A	71	A	99	S
22	M	47	A	72	A		
23	M	48	A	73	A		
24	M	49	A	74	A		
25	M	50	A	75	A		

A: Non-Reactive S: Slightly Reactive (0-20mm); M: Moderately Reactive (20-40mm); H1: Highly Reactive (40-60mm);

## **APPENDIX C**

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### **LABORATORY TEST RESULTS**

J K WILLIAMS CONTRACTING PTY LTD  
PO BOX 308  
PENRITH NSW 2750

Job No: 8574/3  
Tested By: JM  
Checked By: AK  
Date Tested: 27/06/2017  
Laboratory: Penrith

SITE CLASSIFICATION  
PROPOSED CADDENS HILL RESIDENTIAL SUBDIVISION - O'CONNELL LANE, CADDENS

**TEST RESULTS - SHRINK / SWELL INDEX**

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Test Procedure: AS 1289 7.1.1				
Sample Identification	Test Pit 4	Test Pit 17	Test Pit 40	
Depth (m)	0.7 - 1.0	0.5 - 0.8	0.5 - 0.8	
Laboratory Number	8574/3-1	8574/3-2	8574/3-3	
Test Description				
Moisture Content				
Initial %	20.2	20.2	16.8	
Final %	23.7	23.0	19.8	
Swell %	2.4	1.0	2.2	
Shrinkage %	2.5	2.6	1.0	
Shrink/Swell Index % <sub>pF</sub>	2.1	1.7	1.2	
Material Description	(Cl) Silty CLAY, medium plasticity, yellow-brown, trace of fine to medium gravel	(Cl) Silty CLAY, medium plasticity, red-brown	FILL: Silty Clay, low plasticity, grey	

Form No R007 Version 12 06/13



NATA Accreditation Number 2734  
Corporate Site Number 2727

Accredited for compliance with  
ISO/IEC 17025 - Testing.

A Kench 27/06/2017  
Approved Signatory

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