



Job No: 8574/19
Our Ref: 8574/19-AA
15 April 2019

J K Williams Contracting Pty Ltd
P O Box 308
PENRITH NSW 2750
Email: SHartog@jkw.com.au

Attention: Mr S Hartog

Dear Sir

re: **Proposed Caddens Hill Residential Subdivision - Stage 6**
O'Connell Lane, Caddens
Site Classification Report

Please find herewith the results of a geotechnical investigation for the classification of proposed lots at the above site. A total of 78 lots are covered in this report (Lots 620 to 697).

This report contains information on surface and sub-surface conditions encountered at the site, together with the 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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1.0 INTRODUCTION

This report provides results of a site classification investigation for proposed dwellings to be located at Caddens Hill Residential Development – Stage 6. A total of 78 lots are covered in this report (Lots 620 to 697).

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 field work for the investigation was carried out 28 March 2019, under the full time supervision of a Geotechnical Engineer from this company. The field work consisted of excavation of 34 test pits (TP1 to TP34) to the depth in the order of 1.5m. Test pits at shallow depths were terminated due to refusal on bedrock. The locations of the test pits are shown on the attached Drawing No 8574/19-AA1 in Appendix A. A summary of the field data obtained is presented in Appendix A.

3.0 SITE CONDITIONS

3.1 Surface Conditions

Stage 6 is bound by O'Connell Street to the north, rural residential property to the west and other stages of Caddens Hill subdivision to the south and east. The topography of the site is generally flat with a mild slope towards south-west direction. At the time of the investigation, the internal roads were constructed and services installed.

3.2 Sub-Surface Conditions

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

Table 1: Sub-surface conditions

Test Pit	Termination Depth (m)	Topsoil (m)	Fill (m)	Natural (m)	Bedrock (m)
TP1	1.5	0.0 – 0.1	NE	0.1 – 1.0	1.0 → 1.5
TP2	1.0	0.0 – 0.1	NE	0.1 – 0.4	0.4 → 1.0
TP3	1.0	NE	0.0 – 0.6	NE	0.6 → 1.0
TP4	1.5	NE	0.0 – 0.4	0.4 – 1.2	1.2 → 1.5
TP5	1.5	NE	0.0 – 1.1	1.1 → 1.5	NE
TP6	1.5	NE	0.0 → 1.5	NE	NE
TP7	1.5	NE	0.0 – 0.8	0.8 → 1.5	NE
TP8	1.7	0.0 – 0.3	NE	0.3 – 1.5	1.5 → 1.7

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Stage 6 - O'Connell Lane, Caddens

Test Pit	Termination Depth (m)	Topsoil (m)	Fill (m)	Natural (m)	Bedrock (m)
TP9	1.5	0.0 – 0.2	0.2 – 0.4	0.4 – 1.0	1.0 → 1.5
TP10	1.5	0.0 – 0.2	0.2 → 1.5	NE	NE
TP11	1.5	0.0 – 0.2	0.2 → 1.5	NE	NE
TP12	1.5	0.0 – 0.2	0.2 – 0.4	0.4 – 1.0	1.0 → 1.5
TP13	1.5	0.0 – 0.2	0.2 – 0.6	0.6 – 0.9	0.9 → 1.5
TP14	0.7	0.0 – 0.2	0.2 – 0.5	NE	0.5 → 0.7
TP15	0.9	0.0 – 0.2	0.2 – 0.4	NE	0.4 → 0.9
TP16	1.5	0.0 – 0.1	0.1 – 0.6	0.6 → 1.5	NE
TP17	0.6	NE	0.0 – 0.4	NE	0.4 → 0.6
TP18	0.5	NE	0.0 – 0.2	NE	0.2 → 0.5
TP19	0.6	0.0 – 0.1	0.1 – 0.3	NE	0.3 → 0.6
TP20	0.7	0.0 – 0.2	NE	0.2 – 0.5	0.5 → 0.7
TP21	0.9	NE	0.0 – 0.3	0.3 – 0.6	0.6 → 0.9
TP22	1.5	NE	0.0 – 0.4	0.4 → 1.5	NE
TP23	1.3	0.0 – 0.1	0.1 – 0.3	0.3 – 1.0	1.0 → 1.3
TP24	1.5	NE	0.0 – 0.3	0.3 → 1.5	NE
TP25	0.7	NE	0.0 – 0.3	NE	0.3 → 0.7
TP26	0.8	NE	0.0 – 0.4	0.4 – 0.6	0.6 → 0.8
TP27	0.5	NE	0.0 – 0.2	NE	0.2 → 0.5
TP28	1.5	NE	0.0 – 0.2	0.2 → 1.5	NE
TP29	1.5	NE	0.0 – 0.3	0.3 → 1.5	NE
TP30	1.5	NE	0.0 – 0.3	0.3 – 1.0	1.0 → 1.5
TP31	0.8	NE	0.0 – 0.4	0.4 – 0.6	0.6 → 0.8
TP32	1.2	NE	0.0 – 0.9	NE	0.9 → 1.2
TP33	1.2	NE	0.0 – 0.3	0.3 – 0.9	0.9 → 1.2
TP34	1.5	NE	0.0 – 0.4	0.4 → 1.5	NE

NE: Not encountered to the termination depth

The test pit investigation revealed the following generalised sub-surface profile:

Topsoil	Silty Sandy Clay, low plasticity, dark brown, with gravels Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
Fill	Silty Clay, low plasticity, grey-brown, with gravels and organic matter Silty Clay, low to medium plasticity, grey and brown, with gravels FILL: Mixture of low plasticity silty clay and sandstone/siltstone/shale gravels, cobbles and boulders, grey and brown
Natural	Silty CLAY, medium to high plasticity, red-brown/yellow Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel
Bedrock	SILTSTONE/IRONSTONE, fine grained; SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered

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Stage 6 - O'Connell Lane, Caddens

Groundwater or seepage 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.

4.0 LABORATORY TESING

During the course of the investigation, a soil sample of the residual clay materials was recovered for laboratory testing to determine its plasticity property. The test was conducted as per relevant Australian Standards and the results are summarised below and detailed in the attached test certificates.

Table 2: Summary of test results

Test Pit	Depth (m)	Material Description	Liquid Limit	Plasticity Index	Linear Shrinkage
TP22	0.9 - 1.2	(CH) Silty CLAY, high plasticity, red-brown & yellow-brown	73%	50%	20.5%

5.0 DISCUSSION & RECOMMENDATIONS

5.1 Assessment of Fill

Fill was encountered in a number of test pits excavated across the site. It should be noted that a number of field density tests were conducted by Geotech Testing Pty Ltd during the fill placement and the results are provided in our summary report (Our Ref: 8574/5-AE dated 7 March 2019). Based on our inspection of the fill during the investigation and the above field density tests results, it is our assessment that the fill at Stage 6 is "Controlled Fill" except at test pit location TP13 where organic matter was detected in fill to a depth of 600mm.

5.2 Site Classification

Based on the field and laboratory results, the site classification to AS2870-2011 "Residential slabs & footings" for the proposed lots are summarised in Appendix B of this report.

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 bedrock is encountered in any portion of the footing excavations, the remainder of the foundations must be supported on bedrock to ensure even bearing.

The classifications presented in Appendix B of this report are applicable to the Lots at the date of conducting the investigation, being 28 March 2019 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

TABLE A SUMMARY OF TEST PITS

DRAWING NO 8574/19-AA1
(Test Pit Location Plan)

TABLE A

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP1	0.0-0.1		TOPSOIL: Silty Sandy Clay, low plasticity, dark brown, with gravels
	0.1-0.5		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff
	0.5-1.0		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	1.0-1.5		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP2	0.0-0.1		TOPSOIL: Silty Sandy Clay, low plasticity, dark brown, with gravels
	0.1-0.4		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	0.4-1.0		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP3	0.0-0.6		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, moderately compacted
	0.6-1.0		SANDSTONE, fine to medium grained, brown, very low to low strength, extremely to distinctly weathered
TP4	0.0-0.4		FILL: Silty Clay, low plasticity, grey-brown, with gravels and organic matter, M<OMC, moderately compacted
	0.4-1.2		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	1.2-1.5		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP5	0.0-0.1		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M>OMC, moderately compacted
	0.1-1.1		FILL: Mixture of low plasticity silty clay and sandstone/siltstone/shale gravels, cobbles and boulders, grey and brown, M=OMC, well compacted
	1.1-1.5		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP6	0.0-1.5		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels and sandstone/cobbles and boulders. M=OMC, well compacted
TP7	0.0-0.8		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M=OMC, well compacted
	0.8-1.5		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
TP8	0.0-0.3		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.3-1.0		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M≤PL, stiff
	1.0-1.5		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	1.5-1.7		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP9	0.0-0.2		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.2-0.4		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, moderately compacted
	0.4-0.6		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff
	0.6-1.0		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	1.0-1.5		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP10	0.0-0.2		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.2-1.5		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels and cobbles, M<OMC, well compacted

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP11	0.0-0.2		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.2-1.5		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels and cobbles, M<OMC, well compacted
TP12	0.0-0.2		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.2-0.4		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.4-1.0		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	1.0-1.5		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP13	0.0-0.2		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.2-0.6		FILL: Silty Clay, low plasticity, grey-brown, with gravels and organic matter, M<OMC, well compacted
	0.6-0.9		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	0.9-1.5		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP14	0.0-0.2		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.2-0.5		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.5-0.7		SILTSTONE/SHALE, grey and brown, low to medium strength, distinctly weathered
TP15	0.0-0.2		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.2-0.4		FILL: Silty Clay, low plasticity, grey-brown, with gravels and organic matter, M<OMC, moderately compacted
	0.4-0.9		SANDSTONE, fine to medium grained, brown, very low to low strength, extremely to distinctly weathered

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP16	0.0-0.1		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.1-0.6		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.6-1.5		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, very stiff
TP17	0.0-0.4		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.4-0.6		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP18	0.0-0.2		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.2-0.5		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP19	0.0-0.1		TOPSOIL: Silty clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.1-0.3		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.3-0.6		SILTSTONE/SHALE, grey and brown, low to medium strength, distinctly weathered
TP20	0.0-0.2		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.2-0.5		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff to very stiff
	0.5-0.7		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP21	0.0-0.3	0.9-1.2 (U ₅₀)	FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.3-0.6		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff to very stiff
	0.6-0.9		SANDSTONE, fine to medium grained, brown, very low to low strength, extremely to distinctly weathered
TP22	0.0-0.4		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.4-0.9		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	0.9-1.5		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, very stiff
TP23	0.0-0.1		TOPSOIL: Silty Clay, low to medium plasticity, dark brown, with gravels and organic matter
	0.1-0.3		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.3-1.0		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, very stiff
	1.0-1.3		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP24	0.0-0.3		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.3-1.0		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff to very stiff
	1.0-1.5		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, very stiff
TP25	0.0-0.3		FILL: Mixture of low plasticity silty clay and sandstone/siltstone/shale gravels, cobbles and boulders, grey and brown, M<OMC, moderately compacted
	0.3-0.7		SILTSTONE/SHALE, grey and brown, low to medium strength, distinctly weathered

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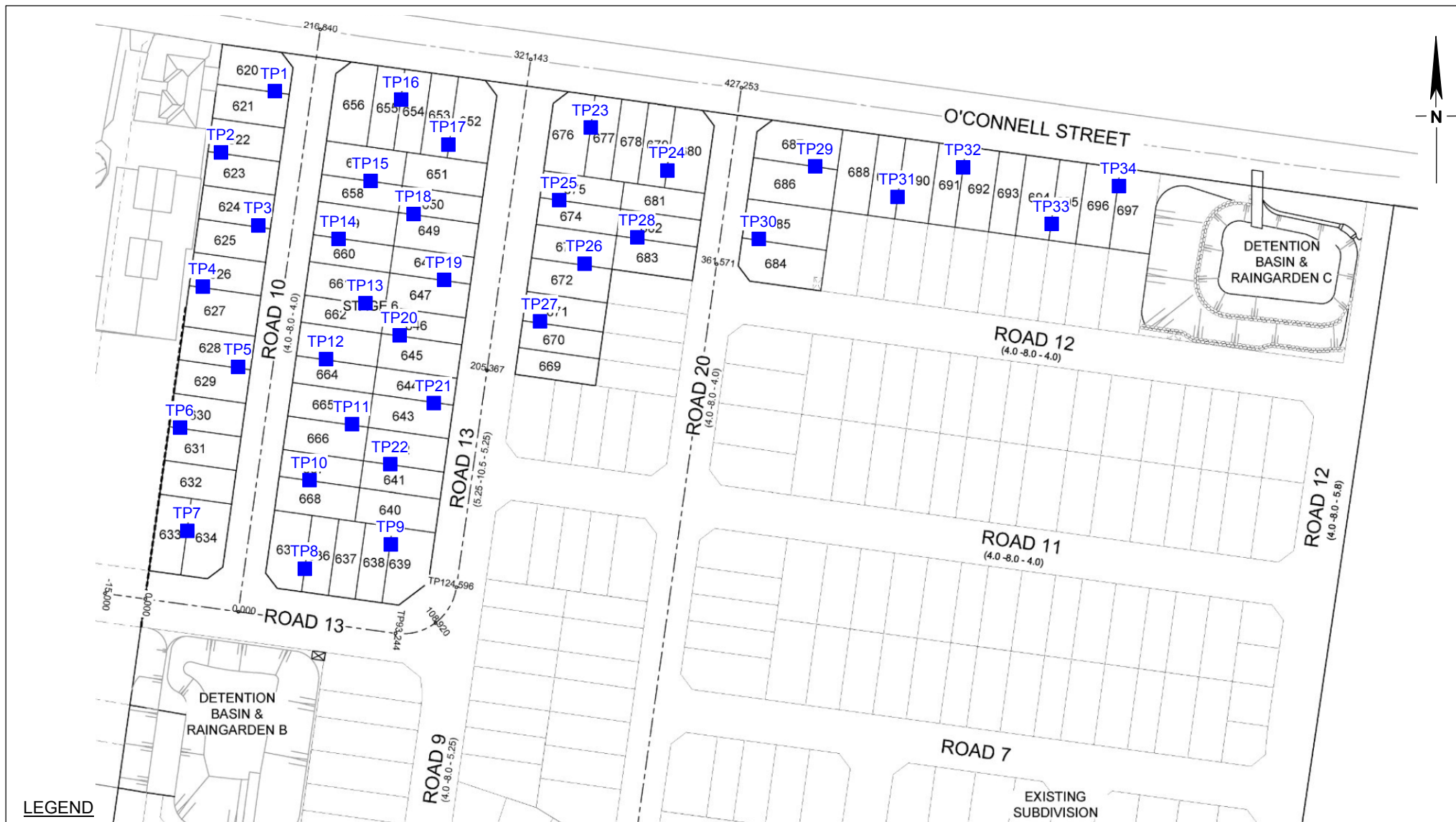
TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP26	0.0-0.4		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.4-0.6		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, very stiff
	0.6-0.8		SANDSTONE, fine to medium grained, brown, very low to low strength, extremely to distinctly weathered
TP27	0.0-0.2		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, moderately compacted
	0.2-0.5		SILTSTONE/SHALE, grey and brown, low to medium strength, distinctly weathered
TP28	0.0-0.2		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.2-0.6		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	0.6-1.5		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, very stiff
TP29	0.0-0.3		FILL: Mixture of low plasticity silty clay and sandstone/siltstone/shale gravels, cobbles and boulders, grey and brown, M=OMC, well compacted
	0.3-1.5		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff to very stiff
TP30	0.0-0.3		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.3-1.0		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff to very stiff
	1.0-1.5		SANDSTONE, fine to medium grained, brown, very low to low strength, extremely to distinctly weathered
TP31	0.0-0.4		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.4-0.6		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff to very stiff
	0.6-0.8		SILTSTONE/SHALE, grey and brown, low to medium strength, distinctly weathered

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TEST PIT NUMBER	DEPTH (m)	SAMPLE DEPTH (m)	MATERIAL DESCRIPTION
TP32	0.0-0.4		FILL: Mixture of low plasticity silty clay and sandstone/siltstone/shale gravels, cobbles and boulders, grey and brown, M=OMC, well compacted
	0.4-0.9		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.9-1.2		SILTSTONE/SHALE, grey and brown, low to medium strength, distinctly weathered
TP33	0.0-0.3		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.3-0.9		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	0.9-1.2		SILTSTONE/IRONSTONE, fine grained / SANDSTONE, grey-brown-yellow, very low to low strength, extremely to distinctly weathered
TP34	0.0-0.4		FILL: Silty Clay, low to medium plasticity, grey and brown, with gravels, M<OMC, well compacted
	0.4-1.0		(CI) Silty CLAY, medium plasticity, grey mottled yellow, traces of ironstone/siltstone gravel, M<PL, stiff to very stiff
	1.0-1.5		(CI-CH) Silty CLAY, medium to high plasticity, red-brown/yellow, M<PL, stiff to very stiff



LEGEND

■ Test Pit

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NOTES

1. Site features are indicative and are not to scale.
2. 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
Stage 6
O'Connell Lane, Caddens

Test Pit Locations

Drawing No: 8574/19-AA1
Job No: 8574/19
Drawn By: MH
Date: 1 April 2019
Checked By: NK

File No: 8574-19
Layers: 0, AA1

APPENDIX B

SUMMARY OF SITE CLASSIFICATIONS

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TABLE B

SUMMARY OF SITE CLASSIFICATIONS

**CADDENS HILL RESIDENTIAL DEVELOPMENT
STAGE 6
O'Connell Lane, Caddens**

Lot	Site Classification	Lot	Site Classification	Lot	Site Classification
620	M	646	S	672	S
621	M	647	S	673	S
622	S	648	S	674	S
623	S	649	S	675	S
624	S	650	S	676	M
625	S	651	S	677	M
626	M	652	S	678	M
627	M	653	S	679	M
628	M	654	M	680	M
629	M	655	M	681	M
630	M	656	M	682	M
631	M	657	S	683	M
632	M	658	S	684	M
633	M	659	S	685	M
634	M	660	S	686	M
635	M	661	P	687	M
636	M	662	P	688	M
637	M	663	M	689	S
638	M	664	M	690	S
639	M	665	M	691	S
640	M	666	M	692	S
641	M	667	M	693	S
642	M	668	M	694	S
643	S	669	S	695	S
644	S	670	S	696	M
645	S	671	S	697	M
S: Slightly Reactive, Free Surface Movement: 0-20mm M: Moderately Reactive, Free Surface Movement: 20-40mm P: Problematic, Needs to replace top 600mm fill containing organic matter					

APPENDIX C

LABORATORY TEST RESULTS



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

SITE CLASSIFICATION
PROPOSED CADDENS HILL RESIDENTIAL SUBDIVISION - O'CONNELL LANE, STAGE 6, CADDENS

TEST RESULTS - ATTERBERG LIMITS
Test Procedure AS1289 3.1.1, 3.2.1, 3.3.1, 3.4.1

Page 1 of 1

Job No: 8574/19 Laboratory Penrith Date Tested 05/04/2019	Tested By: BG Checked By: AK
Sample Identification Test Pit 22	
Laboratory Number 8574/19-1	
Depth (m) 0.9 - 1.2	
Test Description	
Liquid Limit (W_L) 73%	
Plastic Limit (W_P) 23%	
Plastic Index (I_P) 50%	
Linear Shrinkage (LS) 20.5%	
Mould Length (mm) 125	
Sample History Oven Dried Dry Sieved	
Material Description (CH) Silty CLAY, high plasticity, red-brown & yellow-brown	

Form No R004 Version 12 - 06/13 - Issued by ER



Nata Accreditation Number 2734
Corporate Site Number 2727

Accredited for compliance with ISO/IEC 17025 - Testing.

A Kench

12/04/2019

Approved Signatory

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