REPORT

Level One Inspection and Testing Services

Meridian Estate Stage 1, Clyde North
Lots 127 and Lots 153 to 161

Prepared for:

Grosvenor Lodge Pty Ltd

May 2017

Our Ref: 380735.Stage 1.v1

CHADWICK GEOTECHNICS

25 Metcalf Street, Dandenong South, Vic 3175, Melbourne, Australia | p.+61 3 8796 7900| www.chadwickgeotechnics.com.au

Distribution:

Grosvenor Lodge Pty Ltd	pdf
Chadwick Geotechnics Pty Ltd (FILE)	1 copy

Table of contents

1 Introduction

Chadwick Geotechnics Pty Ltd (Chadwick Geotechnics) has been engaged by Grosvenor Lodge Pty Ltd. to provide Level 1 inspection and testing services for the earthworks (including stripping, proof rolling and associated works) for the Meridian Estate Stage 1 in Clyde North.

The inspection and testing of earthworks has been carried out in accordance with AS3798-2007 Table 8.1[1], 'Guidelines on earthworks for commercial and residential developments', with a frequency of field density tests as per Type 1 project (large scale operations).

2 Project details

The project earthworks included the filling of Lot 127 and lots 153 to 161 at the Meridian Estate Stage 1. The specification required the earthworks to be completed under Level 1 Supervision and Testing. Chadwick Geotechnics field technicians were onsite during the earthworks.
The inspection and testing of earthworks has been carried out in accordance with AS3798-2007, 'Guidelines on earthworks for commercial and residential developments', with a frequency of field density tests as per Type 1 project (large scale operations). Compaction control laboratory testing was undertaken in our NATA accredited Dandenong South laboratory in accordance with AS1289 'Methods of Testing Soils for Engineering Purposes'.

The location of the site is shown in Figure 1 below.

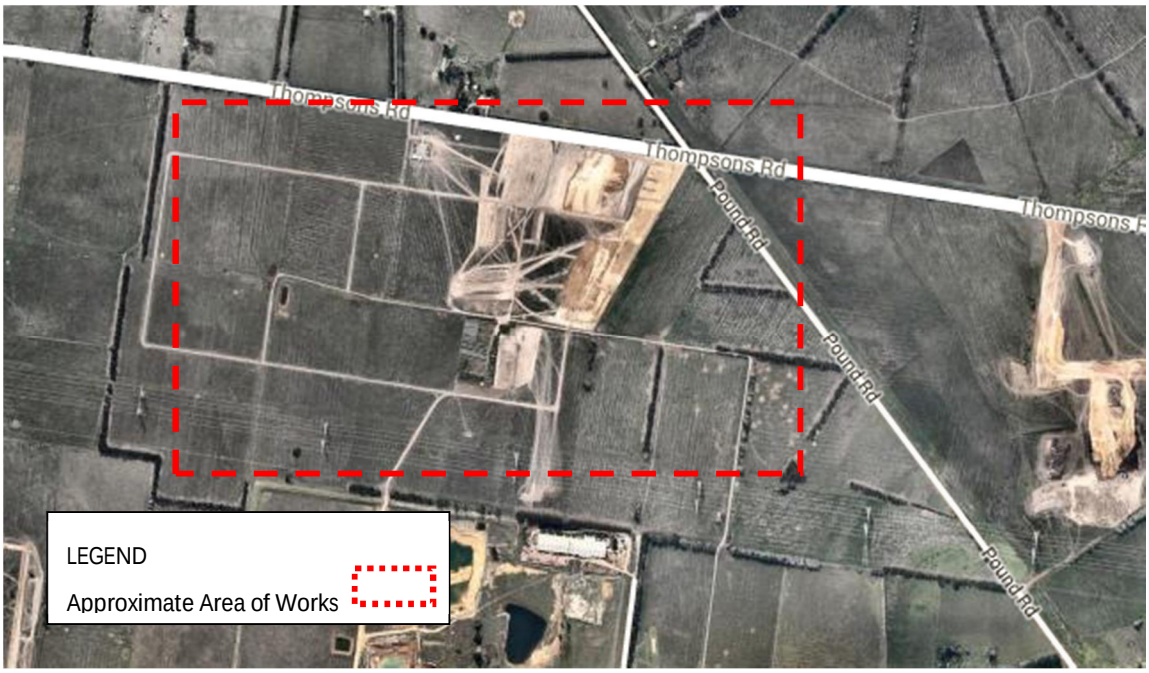


Figure 1: Approximate Site Location *(Image sourced from nearmap.com.au)*

[1] AS 3798 – 2007 (Incorporating Amendment No. 1), Guidelines on earthworks for commercial and residential developments

3 Geology

Published information[2] shows that the site is underlain by various geologies listed as follows;

- Quaternary Age Unnamed dune deposits Formation (Qd1) comprising of sand, clay and calcareous sand.
- Quaternary Age Unnamed swamp and lake deposits Formation (Qm1) comprising of silt and clay.
- Palaezoic Age Murrindindi Supergroup (Sm) comprising of mudstone and sandstone
- Neogeone Age Baxter Sandstone Formation (Nxx) comprising of sandstone, conglomerate, siltstone and ironstone.

4 Specification

A summary of the specification is shown below:

Compaction Requirement	95% Standard Compaction

5 Inspection and testing

Prior to any fill being placed at the site the stripped surface of the fill areas were inspected. The Initial stripped surface inspections were performed by experienced Chadwick Geotechnics staff. The inspections were performed in accordance with the Level 1 guidelines presented in AS 3798–2007 Section 5.5. No soft spots were encountered during the inspections and the areas were firm and free of vegetation and other deleterious material.

Full time Level 1 inspection and testing of the filling operations commenced on the 29th July 2016 and was completed on the 5th May 2017. During this period, the Chadwick Geotechnics field technician observed all works related to the construction including the supply of material, conditioning of material (moisture conditioning and oversize removal), placement and compaction of the fill.

All fill material was placed in lift sequences and the Chadwick Geotechnics field technician verified that the surface of the stripped surface and additional lifts were thoroughly scarified and moisture conditioned prior to placement to prevent delamination at the layer interface.

Visual inspections of the fill materials were carried out at regular intervals throughout works, and where required, the contractor removed unsuitable material.

Field density and moisture content testing was carried out using a calibrated nuclear density gauge in accordance with AS 1289.5.8.1[3]. The HILF rapid compaction test was used for peak converted wet density determinations in accordance with AS 1289.5.7.1. The test locations were recorded using a handheld GPS unit. A site plan showing the field density and moisture content test locations is provided in Appendix A.

[2] BIBBY, L.M., 2004. Simplified 1: 4 000 000 Geology of Victoria. Geological Survey of Victoria Special Publication. GeoScience Victoria.
[3] AS 1289.5.8.1-2007: Methods of testing soils for engineering purposes – Soil compaction and density tests – Determination of field density and field moisture content of a soil using a nuclear surface moisture Density gauge – direct transmission mode

The filling works for Stages 1 and 2 were not continuous, therefore resulting in breaks in time on site. The filling process has also caused a break in the sequential numbering of the density and moisture content test reports. The summary page attached within the appendix excludes reports that relate to other stages of earthworks within the Meridian Estate.

The testing results show that a number of tests failed to meet the specified density and/or moisture limits. The earthworks contractor was advised of the tests that failed and the fill relevant to those areas was reworked, reconditioned, re-compacted and subsequently retested. This procedure was repeated at times until the earthwork lift was compliant with the specification requirements.

The final results show the tests achieved the specified minimum density at moisture limits between ± 4.0% of the soils optimum moisture content. A summary table of HILF density tests is provided in Appendix B and the laboratory test reports are provided in Appendix C.

6 Conclusion

On the basis of our direct supervision and after considering all test results relating to the project, it is our opinion, so far as it is able to be determined, that:

- The materials used by the earthworks contractor met the geotechnical property requirements of the specification.
- The sourced fill was considered to be natural and clean and suitable for use at the site.
- The fill material placed was tested at a suitable frequency in accordance with AS 3798-2007- Table 8.1 and the results indicate the compacted clay achieved the density and moisture requirements of the specification.
- Given the consistent construction practices followed by the earthworks contractor and as witnessed by the Chadwick Geotechnics field technician, combined with the satisfactory verification of test results achieved, it is inferred that areas of the site between test locations were performed to the same standard as those areas that have been tested.

It is our opinion that the earthworks undertaken in the Meridian Estate Stage 1 in Clyde North have been performed in accordance with the requirements of Section 8.2 Level 1 Inspection and testing AS 3798-2007.

The Controlled Fill Certificates for the filling works are provided in Appendix D.

7 Applicability

This report has been prepared in good faith and in accordance with the Chadwick Geotechnics quality system for the earthworks filling within Stage 1 of the Meridian Estate in Clyde North.

This report is based on the nature of the project and the conditions present in, or factors affecting the soil as at the time of inspection, namely the 29th July 2016 and was completed on the 5th May 2017. No responsibility or liability will be accepted, and Chadwick Geotechnics is indemnified to the full extent permitted by law in respect of the use of this report where there has been a change in the nature of the project or the conditions on site that may alter or affect the conclusions of this report.

Should you require any further information regarding this report, please do not hesitate to contact the undersigned on (03) 8796 7900.

Chadwick Geotechnics Pty Ltd

Report prepared by:

.....

Robert Barden

Geotechnical Engineer

Authorised for Chadwick Geotechnics Pty Ltd by:

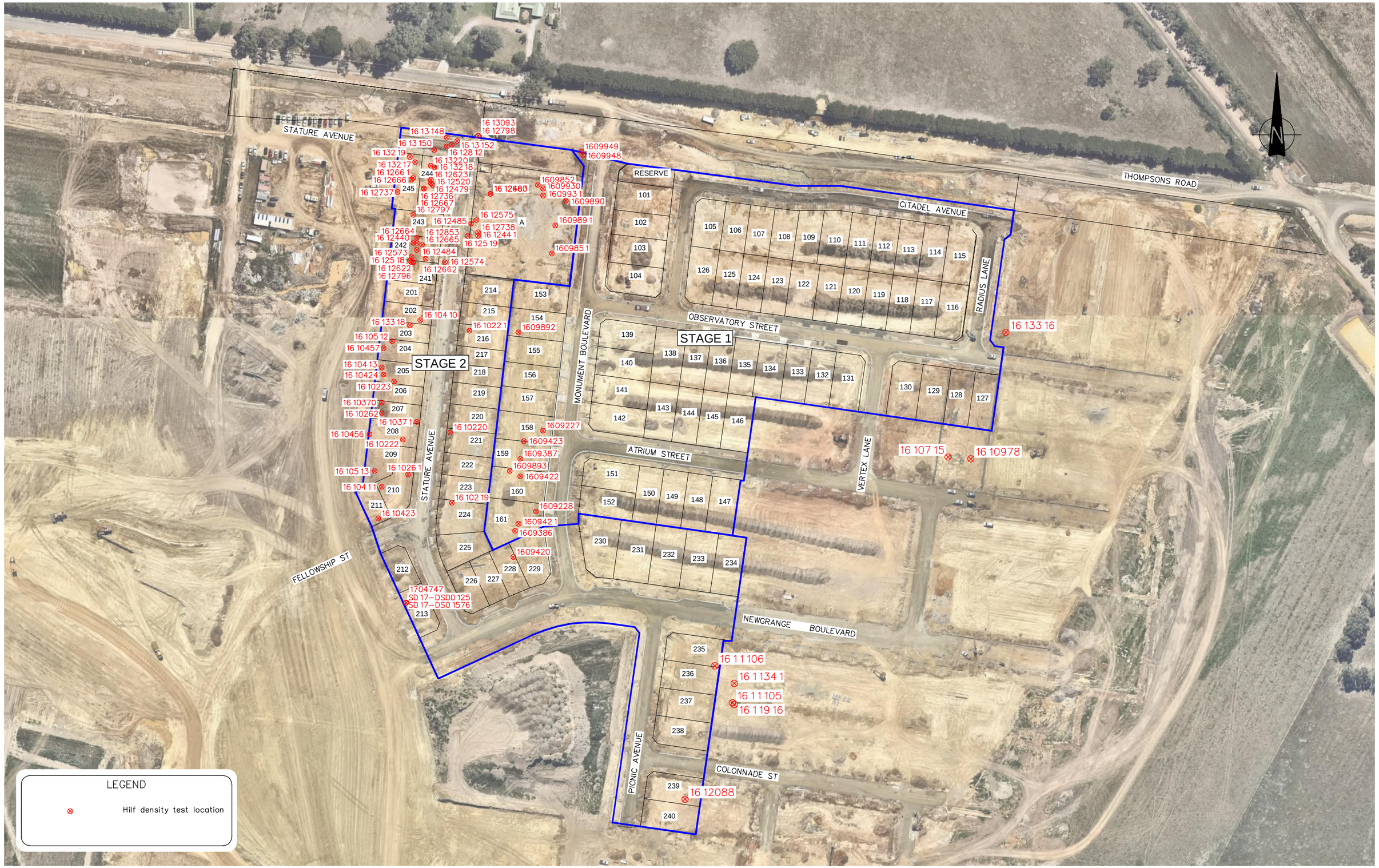
.....

Timothy Chadwick

Project Director

www.chadwickgeotechnics.com.au

Appendix A: Density test location plan



LEGEND

⊗ Hilf density test location

SCALE 1: 2000

0 20 40 60 80 100 (m)

Notes:
1. Aerials sourced from Nearmap data; date flown 08.03.2017 (Images Copyright 2017).
2. Base plan supplied by Brown Property Group – Dwg. Ref. E1–1BASE_P4.dwg; received on 03.03.2017. Base plan has been manually rectified based on aerial imagery and is for information only.

CHADWICK GEOTECHNICS
25 Metcalf Street
Dandenong South, VIC
Ph: (03) 8796 7900
www.chadwickt.com.au

DRAWN	VTG	May. 17
DRAFTING CHECKED		
APPROVED		
CADFILE : \\3807351–F1.dwg		
SCALES (AT A3 SIZE)	AS SHOWN	
PROJECT No.	3807351	

GREENRIDGE PROPERTIES PTY LTD

LEVEL 1 INSPECTION AND TESTING
MERIDIAN ESTATE – STAGE 1 & 2

Level 1 Hilf Test Location Plan

FIG. No. Figure 1

REV. 0

Appendix B: Table of field density test results

Meridian Estate Stage 1 and 2 - 380735.001

Chadwick Geotechnics
25 Metcalf Street
Dandenong South VIC 3175
Tel : (03) 8796 7900
Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Location [N]	Location [E]	Layer	Density Ratio HILF test (%)	Moisture Variation From OMC	Pass / Fail	Remarks
1 to 34										Nata reports not issued with this report, not relating to stages 1 and 2
35	1609227	29/07/2016	128	5782617	355000	1	98.5	2 dry	Pass	
	1609228		129	5782571	354996	1	102	1.5 dry	Pass	
36	1609386	4/08/2016	130	5782560	354984	2	96.5	1 wet	Pass	
	1609387		131	5782601	354987	2	98	2 wet	Pass	
37	1609420	5/08/2016	132	5782545	354983	4	96.5	0.5 wet	Pass	
	1609421		133	5782564	354986	3	97	0.5 wet	Pass	
	1609422		134	5782591	354987	4	107.5	0.5 dry	Pass	
	1609423		135	5782611	354989	3	108.5	2 dry	Pass	
38	1609851	16/08/2016	136	5782718	355005	1	104.5	2 dry	Pass	
	1609852		137	5782757	354997	1	99	omc	Pass	
39	1609890	17/08/2016	138	5782748	355013	2	97.5	omc	Pass	
	1609891		139	5782734	355007	2	101.5	3 dry	Pass	
	1609892		140	5782673	354986	5	101.5	omc	Pass	
	1609893		141	5782594	354981	5	105.5	2.5 dry	Pass	
40	1609930	18/08/2016	142	5782755	355000	4	106	1 dry	Pass	
	1609931		143	5782751	355000	3	102.5	1.5 dry	Pass	
41	1609948	19/08/2016	144	5782774	355023	3	97.5	0.5 wet	Pass	
	1609949		145	5782776	355022	4	98	omc	Pass	

Meridian Estate Stage 1 and 2 - 380735.001

Chadwick Geotechnics
25 Metcalf Street
Dandenong South VIC 3175
Tel : (03) 8796 7900
Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Location [N]	Location [E]	Layer	Density Ratio HILF test (%)	Moisture Variation From OMC	Pass / Fail	Remarks
42	1610219	30/08/2016	146	5782576	354948	2	97.5	0.5 wet	Pass	
	1610220		147	5782616	354947	1	100.5	1.5 dry	Pass	
	1610221		148	5782674	354958	2	98	1.5 dry	Pass	
	1610222		149	5782612	354920	1	93.5	1 wet	Fail	Retested see 1610371
	1610223		150	5782645	354915	1	97.5	0.5 wet	Pass	
	1610224		151	5782837	354735	Road 1	95.5	0.5 wet	Pass	
43	1610261	31/08/2016	152	5782592	354923	2	97	2 wet	Pass	
	1610262		153	5782627	354908	2	98.5	2.5 wet	Pass	
44	1610370	1/09/2016	154	5782633	354908	3	101.5	0.5 wet	Pass	
	1610371		155	5782622	354928	1	100	omc	Pass	Retest of 1610222
	1610372		156	5782836	354742	Road 2	98.5	2.5 wet	Pass	
45	1610423	3/09/2016	157	5782567	354906	5	103.5	1.5 dry	Pass	
	1610424		158	5782649	354909	5	99	1 dry	Pass	
	1610425		159	5782856	354606	road	100.5	3 dry	Pass	
46	1610410	2/09/2016	160	5782680	354930	3	99	.5 wet	Pass	
	1610411		161	5782585	354908	4	98.5	1.5 dry	Pass	
	1610412		162	5782547	354670		101	1.0 wet	Pass	
	1610413		163	5782653	354908	4	102	1.5 dry	Pass	
47	1610456	5/09/2016	164	5782615	354901	6	101.5	0.5 dry	Pass	
	1610457		165	5782664	354909	6	102.5	0.5 dry	Pass	
	1610458		166	5782854	354642	road	100.5	0.5 dry	Pass	
48	1610555	7/09/2016	167	5782414	354716	road	104.5	2.5 dry	Pass	
49	1610512	6/09/2016	168	5782668	354914	7	97.5	omc	Pass	
	1610513		169	5782594	354904	7	102	omc	Pass	
	1610514		170	5782833	354778	Road	101	2.5 dry	Pass	
50	1610600	8/09/2016	171	5782845	354685	Road	103.5	2.5 dry	Pass	
51	1610714		172	5782599	355248	1	95	0.5 wet	Pass	
	1610715		173	5782602	355231	1	100.5	0.5 dry	Pass	
	1610716		174	5782593	355239	2	98.5	1 wet	Pass	
	1610717		175	5782597	355210	2	97.5	omc	Pass	
52	1610978	23/09/2016	176	5782601	355244	-	100	omc	Pass	

Meridian Estate Stage 1 and 2 - 380735.001

Chadwick Geotechnics
25 Metcalf Street
Dandenong South VIC 3175
Tel : (03) 8796 7900
Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Location [N]	Location [E]	Layer	Density Ratio HILF test (%)	Moisture Variation From OMC	Pass / Fail	Remarks
53	1611106	27/09/2016	177	5782483	355098	1	100	1.5 dry	Pass	
	1611105		178	5782462	355108	1	98	1 wet	Pass	
	1611107		179	5782439	355128	1	95	0.5 dry	Pass	
	1611108		180	5782480	355152	1	96.5	omc	Pass	
54	1611341	7/10/2016	181	5782473	355109	-	97.5	2.5 dry	Pass	
	1611342		182	5782451	355127	-	94	2 dry	Fail	Retested see 1611916
55	1611915	26/10/2016	183	5782485	355155	-	98	2 dry	Pass	
	1611916		184	5782461	355109	-	97	omc	Pass	Retest of 1611342
56	1612003	28/10/2016	185	5782476	355151	-	102.5	2 wet	Pass	
57	1612053	2/11/2016	186	5782456	355150	-	100.5	1.5 dry	Pass	
	1612054		187	5782458	355177	-	95	1 dry	Pass	
58	1612088	3/11/2016	188	5782407	355081	1	99	omc	Pass	
	1612089		189	5782526	355187	2	98.5	1.5 dry	Pass	
	1612090		190	5782551	355195	2	95.5	0.5 wet	Pass	
59	1612115	4/11/2016	191	5782445	355177	-	99	0.5 dry	Pass	
	1612116		192	5782458	355205	-	96	0.5 dry	Pass	
	1612117		193	5782461	355121	-	98	2.5 dry	Pass	
60	1612226	7/11/2016	194	5782563	355183	-	97.5	2.5 dry	Pass	
	1612227		195	5782545	355192	-	96.5	1.5 dry	Pass	
61	1612438	11/11/2016	196	5782530	355197	fsl	95	0.5 wet	Pass	
	1612439		197	5782548	355206	fsl	93	0.5 wet	Fail	Retested, see 1612481
	1612440		198	5782724	354926	-	95.5	0.5 wet	Pass	
	1612441		199	5782728	354963	-	91.5	omc	Fail	Retested, see 1612519
62	1612479	12/11/2016	200	5782757	354937	fsl	96	1.5 wet	Pass	
	1612480		201	5782752	354970	fsl	95	1.5 wet	Pass	
	1612481		202	5782541	355199	fsl	101	0.5 wet	Pass	Retest of 1612439
	1612482		203	5782401	355108	fsl	100.5	1.5 dry	Pass	
	1612483		204	5782394	355100	fsl	90.5	1 dry	Fail	Retested, see S17DS-00124
	1612484		205	5782720	354928	fsl	91.5	2 wet	Fail	Retested, see 1612573
	1612485		206	5782735	354959	fsl	99.5	1 wet	Pass	

Meridian Estate Stage 1 and 2 - 380735.001

Chadwick Geotechnics
25 Metcalf Street
Dandenong South VIC 3175
Tel : (03) 8796 7900
Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Location [N]	Location [E]	Layer	Density Ratio HILF test (%)	Moisture Variation From OMC	Pass / Fail	Remarks
63	1612518	14/11/2016	207	5782714	354924	fsl	95	3 wet	Pass	
	1612519		208	5782728	354957	fsl	95	2 wet	Pass	Retest of 1612441
	1612520		209	5782758	354936	fsl	96.5	1 wet	Pass	
64	1612572	15/11/2016	210	5782762	354908	3	95.5	1.5 wet	Pass	
	1612573		211	5782716	354925	1	94	2.5 wet	Fail	Retest of 1612484, Retested, see 1612662
	1612574		212	5782713	354944	3	94	omc	Fail	Retested, see 1612665
	1612575		213	5782737	354962	3	97	1.5 wet	Pass	
65	1612622	16/11/2016	214	5782713	354925	4	98	1.5 wet	Pass	
	1612623		215	5782760	354936	4	92	1 wet	Fail	Retested, see 1612667
66	1612661	17/11/2016	216	5782761	354926	5	100	0.5 wet	Pass	
	1612662		217	5782715	354933	1	97	1 wet	Pass	Retest of 1612573
	1612663		218	5782752	354970	fsl	98.5	1 wet	Pass	
	1612664		219	5782727	354928	5	101	2.5 wet	Pass	
	1612665		220	5782723	354931	3	101	omc	Pass	Retest of 1612574
	1612666		221	5782760	354925	-	96	2 wet	Pass	
	1612667		222	5782755	354932	4	97.5	omc	Pass	Retest of 1612623
67	1612736	18/11/2016	223	5782755	354932	-	96	omc	Pass	
	1612737		224	5782753	354917	-	96.5	1.5 wet	Pass	
	1612738		225	5782730	354963	fsl(4)	99.5	omc	Pass	
68	1612796	19/11/2016	226	5782713	354926	-	96	3% wet	Pass	
	1612797		227	5782740	354926	-	95	0.5% wet	Pass	
	1612798		228	5782785	354963	subgrade	98.5	omc	Pass	
69	1612812	21/11/2016	229	5782779	354945	subgrade	99.5	0.5 dry	Pass	
70	1612853	21/11/2016	230	5782724	354928	-	100	1 wet	Pass	
71	1613092	28/11/2016	231	5782785	354914	1	100	omc	Pass	
	1613093		232	5782782	354951	1	100.5	1 dry	Pass	

Meridian Estate Stage 1 and 2 - 380735.001

Chadwick Geotechnics
25 Metcalf Street
Dandenong South VIC 3175
Tel : (03) 8796 7900
Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Location [N]	Location [E]	Layer	Density Ratio HILF test (%)	Moisture Variation From OMC	Pass / Fail	Remarks
72	1613147	29/11/2016	233	5782789	354910	2	97	omc	Pass	
	1613148		234	5782784	354945	2	92.5	0.5 wet	Fail	Retested, see 1613221
	1613149		235	5782772	354908	3	106.5	0.5 dry	Pass	
	1613150		236	5782777	354938	3	94	2 wet	Fail	Area reworked, see 1613352 and 1613353
	1613151		237	5782783	354916	4	97.5	1.5 wet	Pass	
	1613152		238	5782780	354948	4	101	3 wet	Pass	
73	1613217	30/11/2016	239	5782770	354927	5	96	2 wet	Pass	
	1613218		240	5782767	354938	6	97.5	2.5 wet	Pass	
	1613219		241	5782773	354924	7	95	omc	Pass	
	1613220		242	5782768	354936	8	99	2 wet	Pass	
	1613221		243	5782785	354914	2	92	3 wet	Fail	Retest of 1613148. Retested see 1613352
	1613222		244	5782785	354914	4	97.5	4.5 wet	Fail	Retested, see 1613353
74	1613316	1/12/2016	245	5782673	355264	1	97	2 wet	Pass	
	1613317		246	5782701	355263	2	97.5	3 wet	Pass	
	1613318		247	5782677	354924	3	99	1 wet	Pass	
	1613319		248	5782785	354914	2	100.5	1.5 wet	Pass	
75	1613352	2/12/2016	249	5782785	354914	2	100.5	2 wet	Pass	Retest of 1613221
	1613353		250	5782785	354914	4	98	0.5 wet	Pass	Retest of 1613222
	1613354		251	5782709	355292	4	96	2 wet	Pass	
	1613355		252	5782737	355283	5	99	0.5 wet	Pass	
	1613356		253	5782733	355292	6	96.5	0.5 dry	Pass	
76 to 93										Nata reports not issued with this report, not relating to stages 1 and 2
1 to 3										Nata reports not issued with this report, not relating to stages 1 and 2
4	1704747	18/03/2017	310	354922	5782519	1	105.5	3.5 dry	Fail	Retested, SD17-DS00125
QUESTLab	SD17-DS00124	4/04/2017	311	355103	5782410	fsl	101.5	4.0 dry	Pass	Retest of 1612483
QUESTLab	SD17-DS00125		312	354922	5782519	3	103.2	3.5 dry	Fail	Retest of 1704747, See SD17-DS01576
QUESTLab	SD17-DS01576	5/05/2017	313	354922	5782519	3	102.5	2.0 dry	Pass	Retest of SD17-DS00125

Appendix C: NATA endorsed laboratory test reports

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 35**

Report Date: 01/08/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1609227**	**1609228**								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	29/07/2016	29/07/2016								
Time Sampled:	am/pm	am/pm								
Date Tested:	1/08/2016	1/08/2016								
Material Source:	Site Derived	Site Derived								
Material Description:	Clay	Clay								
To Be Used As	Fill	Fill								
Sample Location :	E 355000 N 5782617 Layer 1	E 354996 N 5782571 Layer 1								
Layer Depth (mm):	150	150								
Test Depth (mm):	125	125								
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)								
Max Size (mm):	19.0	19.0								
Oversize Wet (%):	0	0								
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**1.99**	**1.97**								
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**								
PCWD (t/m^3):	**2.03**	**1.94**								
APCWD (t/m^3)	**-**	**-**								
O.M.C (%) AS1289.5.7.1:	**-**	**-**								
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**								
Moisture Variation (of omc):	**2% (dry)**	**1.5% (dry)**								
Adjusted Moisture Variation (of omc):	**-**	**-**								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	**98.5**	**102.0**								
Min Hilf Density Ratio (%):	95	95								

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 36**

Report Date: 08/08/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1609386**	**1609387**								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	4/08/2016	4/08/2016								
Time Sampled:	am	am								
Date Tested:	4/08/2016	4/08/2016								
Material Source:	Site Derived	Site Derived								
Material Description:	Silty Clay	Silty Clay								
To Be Used As	Fill	Fill								
Sample Location :	E 354984 N 5782560 Layer 2	E 354987 N 5782601 Layer 2								
Layer Depth (mm):	150	150								
Test Depth (mm):	125	125								
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)								
Max Size (mm):	19.0	19.0								
Oversize Wet (%):	0	0								
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.01**	**2.07**								
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**								
PCWD (t/m^3):	**2.08**	**2.11**								
APCWD (t/m^3)	**-**	**-**								
O.M.C (%) AS1289.5.7.1:	**-**	**-**								
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**								
Moisture Variation (of omc):	**1% (wet)**	**2% (wet)**								
Adjusted Moisture Variation (of omc):	**-**	**-**								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	**96.5**	**98.0**								
Min Hilf Density Ratio (%):	95	95								

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 37**

Report Date: 09/08/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1609420**	**1609421**	**1609422**	**1609423**						
ID No.:	1	2	3	4						
Lot No.:	-	-	-	-						
Date Sampled:	5/08/2016	5/08/2016	5/08/2016	5/08/2016						
Time Sampled:	am/pm	am/pm	am/pm	am/pm						
Date Tested:	8/08/2016	8/08/2016	8/08/2016	8/08/2016						
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived						
Material Description:	Clay	Clay	Clay	Clay						
To Be Used As	-	-	-	-						
Sample Location :	E 354983 N 5782545 Layer 4	E 354986 N 5782564 Layer 3	E 354987 N 5782591 Layer 4	E 354989 N 5782611 Layer 3						
Layer Depth (mm):	200	200	200	200						
Test Depth (mm):	150	150	150	150						
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)						
Max Size (mm):	19.0	19.0	19.0	19.0						
Oversize Wet (%):	0	0	0	0						
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**1.97**	**1.88**	**2.18**	**2.01**						
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**	**-**						
PCWD (t/m^3):	**2.04**	**1.94**	**2.03**	**1.85**						
APCWD (t/m^3)	**-**	**-**	**-**	**-**						
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**	**-**						
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**	**-**						
Moisture Variation (of omc):	**0.5% (wet)**	**0.5% (wet)**	**0.5% (dry)**	**2% (dry)**						
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**	**-**						
Compactive Effort:	Standard	Standard	Standard	Standard						
Hilf Density Ratio (%):	**96.5**	**97.0**	**107.5**	**108.5**						
Min Hilf Density Ratio (%):	95	95	95	95						

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 38**

Report Date: 17/08/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1609851**	**1609852**								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	16/08/2016	16/08/2016								
Time Sampled:	pm	pm								
Date Tested:	17/08/2016	17/08/2016								
Material Source:	Site Derived	Site Derived								
Material Description:	Silty Clay	Silty Clay								
To Be Used As	Fill	Fill								
Sample Location :	E 355005 N 5782718 Layer 1	E 354997 N 5782757 Layer 1								
Layer Depth (mm):	200	200								
Test Depth (mm):	150	150								
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)								
Max Size (mm):	19.0	19.0								
Oversize Wet (%):	0	0								
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**1.96**	**1.94**								
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**								
PCWD (t/m^3):	**1.87**	**1.96**								
APCWD (t/m^3)	**-**	**-**								
O.M.C (%) AS1289.5.7.1:	**-**	**-**								
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**								
Moisture Variation (of omc):	**2% (dry)**	**omc**								
Adjusted Moisture Variation (of omc):	**-**	**-**								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	**104.5**	**99.0**								
Min Hilf Density Ratio (%):	95	95								

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 39**

Report Date: 18/08/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1609890**	**1609891**	**1609892**	**1609893**						
ID No.:	1	2	3	4						
Lot No.:	-	-	-	-						
Date Sampled:	17/08/2016	17/08/2016	17/08/2016	17/08/2016						
Time Sampled:	am/pm	am/pm	am/pm	am/pm						
Date Tested:	18/08/2016	18/08/2016	18/08/2016	18/08/2016						
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived						
Material Description:	Clay	Clay	Clay	Clay						
To Be Used As	-	-	-	-						
Sample Location :	E 355013 N 5782748 Layer 2	E 355007 N 5782734 Layer 2	E 354986 N 5782673 Layer 5	E 354981 N 5782594 Layer 5						
Layer Depth (mm):	200	200	200	200						
Test Depth (mm):	150	150	150	150						
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)						
Max Size (mm):	19.0	19.0	19.0	19.0						
Oversize Wet (%):	0	0	0	0						
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.16**	**1.98**	**2.13**	**2.15**						
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**	**-**						
PCWD (t/m^3):	**2.22**	**1.95**	**2.10**	**2.04**						
APCWD (t/m^3)	**-**	**-**	**-**	**-**						
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**	**-**						
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**	**-**						
Moisture Variation (of omc):	**omc**	**3% (dry)**	**omc**	**2.5% (dry)**						
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**	**-**						
Compactive Effort:	Standard	Standard	Standard	Standard						
Hilf Density Ratio (%):	**97.5**	**101.5**	**101.5**	**105.5**						
Min Hilf Density Ratio (%):	95	95	95	95						

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 40**

Report Date: 22/08/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1609930**	**1609931**								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	18/08/2016	18/08/2016								
Time Sampled:	am/pm	am/pm								
Date Tested:	19/08/2016	19/08/2016								
Material Source:	Site Derived	Site Derived								
Material Description:	Clay	Clay								
To Be Used As	-	-								
Sample Location :	E 355000 N 5782755 Layer 4	E 355000 N 5782751 Layer 3								
Layer Depth (mm):	200	200								
Test Depth (mm):	150	150								
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)								
Max Size (mm):	19.0	19.0								
Oversize Wet (%):	0	0								
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.07**	**2.23**								
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**								
PCWD (t/m^3):	**1.95**	**2.17**								
APCWD (t/m^3)	**-**	**-**								
O.M.C (%) AS1289.5.7.1:	**-**	**-**								
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**								
Moisture Variation (of omc):	**1% (dry)**	**1.5% (dry)**								
Adjusted Moisture Variation (of omc):	**-**	**-**								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	**106.0**	**102.5**								
Min Hilf Density Ratio (%):	95	95								

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 41**

Report Date: 22/08/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1609948**	**1609949**								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	19/08/2016	19/08/2016								
Time Sampled:	am	am								
Date Tested:	22/08/2016	22/08/2016								
Material Source:	Site Derived	Site Derived								
Material Description:	Clay	Clay								
To Be Used As	Fill	Fill								
Sample Location :	E355023 N5782774 Layer 3	E355022 N5782776 Layer 4								
Layer Depth (mm):	200	200								
Test Depth (mm):	175	175								
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)								
Max Size (mm):	19.0	19.0								
Oversize Wet (%):	6	8								
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.10**	**2.11**								
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**								
PCWD (t/m^3):	**-**	**-**								
APCWD (t/m^3)	**2.15**	**2.15**								
O.M.C (%) AS1289.5.7.1:	**-**	**-**								
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**								
Moisture Variation (of omc):	**0.5% (wet)**	**omc**								
Adjusted Moisture Variation (of omc):	**-**	**-**								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	**97.5**	**98.0**								
Min Hilf Density Ratio (%):	95	95								

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 42**

Report Date: 02/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610219**	**1610220**	**1610221**	**1610222**	**1610223**	**1610224**				
ID No.:	1	2	3	4	5	6				
Lot No.:	-	-	-	-	-	-				
Date Sampled:	30/08/2016	30/08/2016	30/08/2016	30/08/2016	30/08/2016	30/08/2016				
Time Sampled:	am	am	am	am	am	am				
Date Tested:	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016	31/08/2016				
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived				
Material Description:	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay				
To Be Used As	Fill	Fill	Fill	Fill	Fill	Fill				
Sample Location :	E 354948 N 5782576 Layer 2	E 354947 N 5782616 Layer 1	E 354958 N 5782674 Layer 2	E 354920 N 5782612 Layer 1	E 354915 N 5782645 Layer 1	E 354735 N 5782837 Layer 1 Road Way				
Layer Depth (mm):	150	150	150	150	150	150				
Test Depth (mm):	125	125	125	125	125	125				
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)				
Max Size (mm):	19.0	19.0	19.0	19.0	19.0	19.0				
Oversize Wet (%):	0	0	0	2	10	4				
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.03**	**2.00**	**2.02**	**2.00**	**2.05**	**2.01**				
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**	**-**	**-**	**-**				
PCWD (t/m^3):	**2.08**	**1.99**	**2.06**	**-**	**-**	**-**				
APCWD (t/m^3)	**-**	**-**	**-**	**2.14**	**2.10**	**2.10**				
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**	**-**	**-**	**-**				
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**	**-**	**-**	**-**				
Moisture Variation (of omc):	**0.5% (wet)**	**1.5% (dry)**	**1.5% (dry)**	**1% (wet)**	**0.5% (wet)**	**0.5% (wet)**				
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**	**-**	**-**	**-**				
Compactive Effort:	Standard	Standard	Standard	Standard	Standard	Standard				
Hilf Density Ratio (%):	**97.5**	**100.5**	**98.0**	**93.5**	**97.5**	**95.5**				
Min Hilf Density Ratio (%):	95	95	95	95	95	95				

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

A. Catton

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 43**

Report Date: 02/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610261**	**1610262**								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	31/08/2016	31/08/2016								
Time Sampled:	am/pm	am/pm								
Date Tested:	1/09/2016	1/09/2016								
Material Source:	Site Dervied	Site Dervied								
Material Description:	Clay	Clay								
To Be Used As	-	-								
Sample Location :	E 354923 N 5782592 Layer 2	E 354908 N 5782627 Layer 2								
Layer Depth (mm):	200	200								
Test Depth (mm):	150	150								
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)								
Max Size (mm):	19.0	19.0								
Oversize Wet (%):	5	4								
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.00**	**2.03**								
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**								
PCWD (t/m^3):	**-**	**-**								
APCWD (t/m^3)	**2.06**	**2.06**								
O.M.C (%) AS1289.5.7.1:	**-**	**-**								
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**								
Moisture Variation (of omc):	**2% (wet)**	**2.5% (wet)**								
Adjusted Moisture Variation (of omc):	**-**	**-**								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	**97.0**	**98.5**								
Min Hilf Density Ratio (%):	95	95								

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

A. Catton

A. Catton

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 44**

Report Date: 02/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610370**	**1610371**	**1610372**							
ID No.:	1	2	3							
Lot No.:	-	-	-							
Date Sampled:	1/09/2016	1/09/2016	1/09/2016							
Time Sampled:	am/pm	am/pm	am/pm							
Date Tested:	2/09/2016	2/09/2016	2/09/2016							
Material Source:	Site Derived	Site Derived	Site Derived							
Material Description:	Clay	Clay	Clay							
To Be Used As	-	-	-							
Sample Location :	E 354908 N 5782633 Layer 3	E 354928 N 5782622 Layer 1 Retest 1610222	E 354742 N 5782836 Layer 2 Roadways							
Layer Depth (mm):	200	200	200							
Test Depth (mm):	150	150	150							
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)							
Max Size (mm):	19.0	19.0	19.0							
Oversize Wet (%):	0	0	0							
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**1.98**	**1.98**	**2.05**							
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**							
PCWD (t/m^3):	**1.95**	**1.98**	**2.07**							
APCWD (t/m^3)	**-**	**-**	**-**							
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**							
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**							
Moisture Variation (of omc):	**0.5% (wet)**	**omc**	**2.5% (wet)**							
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**							
Compactive Effort:	Standard	Standard	Standard							
Hilf Density Ratio (%):	**101.5**	**100.0**	**98.5**							
Min Hilf Density Ratio (%):	95	95	95							

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

A. Catton

A. Catton

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 45**

Report Date: 05/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610423**	**1610424**	**1610425**							
ID No.:	1	2	3							
Lot No.:	-	-	-							
Date Sampled:	3/09/2016	3/09/2016	3/09/2016							
Time Sampled:	am/pm	am/pm	am/pm							
Date Tested:	5/09/2016	5/09/2016	5/09/2016							
Material Source:	Site Derived	Site Derived	Site Derived							
Material Description:	Silty Clay	Silty Clay	Silty Clay							
To Be Used As	Fill	Fill	Fill							
Sample Location :	354906E 5782567N Layer 5 -	354909E 5782649N Layer 5 -	354606E 5782856N Road -							
Layer Depth (mm):	200	200	200							
Test Depth (mm):	175	175	175							
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)							
Max Size (mm):	19.0	19.0	19.0							
Oversize Wet (%):	0	0	0							
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.02**	**1.91**	**1.90**							
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**							
PCWD (t/m^3):	**1.95**	**1.93**	**1.90**							
APCWD (t/m^3)	**-**	**-**	**-**							
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**							
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**							
Moisture Variation (of omc):	**1.5% (dry)**	**1% (dry)**	**3% (dry)**							
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**							
Compactive Effort:	Standard	Standard	Standard							
Hilf Density Ratio (%):	**103.5**	**99.0**	**100.5**							
Min Hilf Density Ratio (%):	95	95	95							

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 46**

Report Date: 05/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610410**	**1610411**	**1610412**	**1610413**						
ID No.:	1	2	3	4						
Lot No.:	-	-	-	-						
Date Sampled:	2/09/2016	2/09/2016	2/09/2016	2/09/2016						
Time Sampled:	am/pm	am/pm	am/pm	am/pm						
Date Tested:	5/09/2016	5/09/2016	5/09/2016	5/09/2016						
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived						
Material Description:	Clay	Clay	Clay	Clay						
To Be Used As	Fill	Fill	Fill	Fill						
Sample Location :	E354930 N5782680 Layer 3 -	E354908 N5782585 Layer 4 -	E354670 N5782847 Thompsons Road -	E354908 N5782653 Layer 4 -						
Layer Depth (mm):	200	200	200	200						
Test Depth (mm):	150	150	150	150						
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)						
Max Size (mm):	19.0	19.0	19.0	19.0						
Oversize Wet (%):	0	8	0	0						
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.04**	**2.03**	**2.10**	**1.96**						
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**	**-**						
PCWD (t/m^3):	**2.06**	**-**	**2.08**	**1.92**						
APCWD (t/m^3)	**-**	**2.06**	**-**	**-**						
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**	**-**						
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**	**-**						
Moisture Variation (of omc):	**0.5% (wet)**	**1.5% (dry)**	**1% (wet)**	**1.5% (dry)**						
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**	**-**						
Compactive Effort:	Standard	Standard	Standard	Standard						
Hilf Density Ratio (%):	**99.0**	**98.5**	**101.0**	**102.0**						
Min Hilf Density Ratio (%):	95	95	95	95						

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

A Catton

A. Catton

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 47**

Report Date: 07/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610456**	**1610457**	**1610458**							
ID No.:	1	2	3							
Lot No.:	-	-	-							
Date Sampled:	5/09/2016	5/09/2016	5/09/2016							
Time Sampled:	am	am	am							
Date Tested:	5/09/2016	6/09/2016	5/09/2016							
Material Source:	Site Derived	Site Derived	Site Derived							
Material Description:	Silty Clay	Silty Clay	Silty Clay							
To Be Used As	Fill	Fill	Fill							
Sample Location :	Meridian Estate E354901 N5782615 Layer 6	Meridian Estate E354909 N5782664 Layer 6	Meridian Estate E354642 N5782854 Roadways							
Layer Depth (mm):	200	200	200							
Test Depth (mm):	150	150	150							
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)							
Max Size (mm):	19.0	19.0	19.0							
Oversize Wet (%):	0	0	0							
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.03**	**2.07**	**2.01**							
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**							
PCWD (t/m^3):	**2.00**	**2.01**	**2.00**							
APCWD (t/m^3)	**-**	**-**	**-**							
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**							
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**							
Moisture Variation (of omc):	**0.5% (dry)**	**0.5% (dry)**	**0.5% (dry)**							
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**							
Compactive Effort:	Standard	Standard	Standard							
Hilf Density Ratio (%):	**101.5**	**102.5**	**100.5**							
Min Hilf Density Ratio (%):	95	95	95							

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

A Catton

A. Catton

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 48**

Report Date: 08/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610555**									
ID No.:	1									
Lot No.:	-									
Date Sampled:	7/09/2016									
Time Sampled:	pm									
Date Tested:	8/09/2016									
Material Source:	Site Derived									
Material Description:	Silty Clay									
To Be Used As	Fill									
Sample Location :	Meridian Estate E354716 N57828414 Roadway									
Layer Depth (mm):	200									
Test Depth (mm):	150									
Sampling Procedure:	AS1289.1.2.1.6.4(b)									
Max Size (mm):	19.0									
Oversize Wet (%):	0									
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.03**									
Fld. Moisture Content (%) AS1289.2.1.1:	**-**									
PCWD (t/m^3):	**1.95**									
APCWD (t/m^3)	**-**									
O.M.C (%) AS1289.5.7.1:	**-**									
Moisture Ratio (%) AS1289.5.4.1:	**-**									
Moisture Variation (of omc):	**2.5% (dry)**									
Adjusted Moisture Variation (of omc):	**-**									
Compactive Effort:	Standard									
Hilf Density Ratio (%):	**104.5**									
Min Hilf Density Ratio (%):	95									

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

A. Catton

A. Catton

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 49**

Report Date: 08/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610512**	**1610513**	**1610514**							
ID No.:	1	2	3							
Lot No.:	-	-	-							
Date Sampled:	6/09/2016	6/09/2016	6/09/2016							
Time Sampled:	am/pm	am/pm	am/pm							
Date Tested:	7/09/2016	8/09/2016	8/09/2016							
Material Source:	Site Derived	Site Derived	Site Derived							
Material Description:	Clay	Clay	Clay							
To Be Used As	Fill	Fill	Fill							
Sample Location :	E 354914 N 5782668 Layer 7 -	E 354904 N 5782594 Layer 7 -	E 354778 N 5782833 Thompsons Road -							
Layer Depth (mm):	200	200	200							
Test Depth (mm):	150	150	150							
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)							
Max Size (mm):	19.0	19.0	19.0							
Oversize Wet (%):	0	0	0							
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**1.95**	**2.04**	**1.91**							
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**							
PCWD (t/m^3):	**1.99**	**2.00**	**1.89**							
APCWD (t/m^3)	**-**	**-**	**-**							
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**							
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**							
Moisture Variation (of omc):	**omc**	**omc**	**2.5% (dry)**							
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**							
Compactive Effort:	Standard	Standard	Standard							
Hilf Density Ratio (%):	**97.5**	**102.0**	**101.0**							
Min Hilf Density Ratio (%):	95	95	95							

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

A. Catton

A. Catton

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 50**

Report Date: 09/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610600**									
ID No.:	1									
Lot No.:	-									
Date Sampled:	8/09/2016									
Time Sampled:	pm									
Date Tested:	9/09/2016									
Material Source:	Site Derived									
Material Description:	Clay									
To Be Used As	Fill									
Sample Location :	354685E 5782845N Road									
Layer Depth (mm):	200									
Test Depth (mm):	150									
Sampling Procedure:	AS1289.1.2.1.6.4(b)									
Max Size (mm):	19.0									
Oversize Wet (%):	0									
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.04**									
Fld. Moisture Content (%) AS1289.2.1.1:	**-**									
PCWD (t/m^3):	**1.97**									
APCWD (t/m^3)	**-**									
O.M.C (%) AS1289.5.7.1:	**-**									
Moisture Ratio (%) AS1289.5.4.1:	**-**									
Moisture Variation (of omc):	**2.5% (dry)**									
Adjusted Moisture Variation (of omc):	**-**									
Compactive Effort:	Standard									
Hilf Density Ratio (%):	**103.5**									
Min Hilf Density Ratio (%):	95									

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 51**

Report Date: 12/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610714**	**1610715**	**1610716**	**1610717**						
ID No.:	1	2	3	4						
Lot No.:	-	-	-	-						
Date Sampled:	10/09/2016	10/09/2016	10/09/2016	10/09/2016						
Time Sampled:	am/pm	am/pm	am/pm	am/pm						
Date Tested:	12/09/2016	12/09/2016	12/09/2016	12/09/2016						
Material Source:	Insitu	Insitu	Insitu	Insitu						
Material Description:	Clay	Clay	Clay	Clay						
To Be Used As	Fill	Fill	Fill	Fill						
Sample Location :	355248E 5782599N Layer 1	355231E 5782602N Layer 1	355239E 5782593N Layer 2	355210E 5782597N Layer 2						
Layer Depth (mm):	200	200	200	200						
Test Depth (mm):	150	150	150	150						
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)						
Max Size (mm):	19.0	19.0	19.0	19.0						
Oversize Wet (%):	6	0	0	7						
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**1.94**	**1.98**	**1.99**	**2.01**						
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**	**-**						
PCWD (t/m^3):	**-**	**1.97**	**2.02**	**-**						
APCWD (t/m^3)	**2.04**	**-**	**-**	**2.06**						
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**	**-**						
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**	**-**						
Moisture Variation (of omc):	**0.5% (wet)**	**0.5% (dry)**	**1% (wet)**	**omc**						
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**	**-**						
Compactive Effort:	Standard	Standard	Standard	Standard						
Hilf Density Ratio (%):	**95.0**	**100.5**	**98.5**	**97.5**						
Min Hilf Density Ratio (%):	95	95	95	95						

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 52**

Report Date: 27/09/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1610978**									
ID No.:	1									
Lot No.:	-									
Date Sampled:	23/09/2016									
Time Sampled:	am/pm									
Date Tested:	26/09/2016									
Material Source:	Site Derived									
Material Description:	Clay									
To Be Used As	Fill									
Sample Location :	E 355244 N 5782601									
Layer Depth (mm):	200									
Test Depth (mm):	150									
Sampling Procedure:	AS1289.1.2.1.6.4(b)									
Max Size (mm):	19.0									
Oversize Wet (%):	0									
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.04**									
Fld. Moisture Content (%) AS1289.2.1.1:	**-**									
PCWD (t/m^3):	**2.04**									
APCWD (t/m^3)	**-**									
O.M.C (%) AS1289.5.7.1:	**-**									
Moisture Ratio (%) AS1289.5.4.1:	**-**									
Moisture Variation (of omc):	**omc**									
Adjusted Moisture Variation (of omc):	**-**									
Compactive Effort:	Standard									
Hilf Density Ratio (%):	**100.0**									
Min Hilf Density Ratio (%):	95									

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 53**

Report Date: 29/09/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1611105**	**1611106**	**1611107**	**1611108**						
ID No.:	1	2	3	4						
Lot No.:	-	-	-	-						
Date Sampled:	27/09/2016	27/09/2016	27/09/2016	27/09/2016						
Time Sampled:	am	am	am	am						
Date Tested:	28/09/2016	28/09/2016	28/09/2016	28/09/2016						
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived						
Material Description:	Clay	Clay	Clay	Clay						
To Be Used As	Fill	Fill	Fill	Fill						
Sample Location :	E 355098 N 5782483 Layer 1	E 355108 N 5782462 Layer 1	E 355128 N 5782439 Layer 1	E 355152 N 5782480 Layer 1						
Layer Depth (mm):	200	200	200	200						
Test Depth (mm):	150	150	150	150						
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)						
Max Size (mm):	19.0	19.0	19.0	19.0						
Oversize Wet (%):	0	3	10	3						
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**1.96**	**1.98**	**1.98**	**1.98**						
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**	**-**						
PCWD (t/m^3):	**1.95**	**-**	**-**	**-**						
APCWD (t/m^3)	**-**	**2.02**	**2.08**	**2.05**						
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**	**-**						
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**	**-**						
Moisture Variation (of omc):	**1.5% (dry)**	**1% (wet)**	**0.5% (dry)**	**omc**						
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**	**-**						
Compactive Effort:	Standard	Standard	Standard	Standard						
Hilf Density Ratio (%):	**100.0**	**98.0**	**95.0**	**96.5**						
Min Hilf Density Ratio (%):	95	95	95	95						

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 54**
Report Date: 17/10/16
C.G Order No: -
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1611341**	**1611342**
ID No.:	1	2
Lot No.:	-	-
Date Sampled:	7/10/2016	7/10/2016
Time Sampled:	am	am
Date Tested:	7/10/2016	7/10/2016
Material Source:	Site Derived	Site Derived
Material Description:	Gravellly Clay	Gravellly Clay
To Be Used As	Fill	Fill
Sample Location :	E 355109 N 5782473	E 355127 N 5782451
Layer Depth (mm):	200	200
Test Depth (mm):	175	175
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)
Max Size (mm):	19.0	19.0
Oversize Wet (%):	3	20
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**1.96**	**2.07**
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**
PCWD (t/m^3):	**-**	**-**
APCWD (t/m^3)	**2.01**	**2.20**
O.M.C (%) AS1289.5.7.1:	**-**	**-**
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**
Moisture Variation (of omc):	**2.5% (dry)**	**2% (dry)**
Adjusted Moisture Variation (of omc):	**-**	**-**
Compactive Effort:	Standard	Standard
Hilf Density Ratio (%):	**97.5**	**94.0**
Min Hilf Density Ratio (%):	95	95

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 55**
Report Date: 02/11/16
C.G Order No: -
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1611915**	**1611916**								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	26/10/2016	26/10/2016								
Time Sampled:	am/pm	am/pm								
Date Tested:	27/10/2016	27/10/2016								
Material Source:	Site Derived	Site Derived								
Material Description:	Clay	Clay								
To Be Used As	-	-								
Sample Location :	N 5782485 E 355155	N 5782461 E 355109								
Layer Depth (mm):	200	200								
Test Depth (mm):	150	150								
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)								
Max Size (mm):	19.0	19.0								
Oversize Wet (%):	8	4								
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.16**	**2.10**								
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**								
PCWD (t/m^3):	**-**	**-**								
APCWD (t/m^3)	**2.20**	**2.17**								
O.M.C (%) AS1289.5.7.1:	**-**	**-**								
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**								
Moisture Variation (of omc):	**2% (dry)**	**omc**								
Adjusted Moisture Variation (of omc):	**-**	**-**								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	**98.0**	**97.0**								
Min Hilf Density Ratio (%):	95	95								

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 56**

Report Date: 03/11/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612003**
ID No.:	1
Lot No.:	-
Date Sampled:	28/10/2016
Time Sampled:	pm
Date Tested:	2/11/2016
Material Source:	Site Derived
Material Description:	Clay
To Be Used As	-
Sample Location :	N 5782476 E 355151
Layer Depth (mm):	200
Test Depth (mm):	150
Sampling Procedure:	AS1289.1.2.1.6.4(b)
Max Size (mm):	19.0
Oversize Wet (%):	5
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.19**
Fld. Moisture Content (%) AS1289.2.1.1:	**-**
PCWD (t/m^3):	**-**
APCWD (t/m^3)	**2.14**
O.M.C (%) AS1289.5.7.1:	**-**
Moisture Ratio (%) AS1289.5.4.1:	**-**
Moisture Variation (of omc):	**2% (wet)**
Adjusted Moisture Variation (of omc):	**-**
Compactive Effort:	Standard
Hilf Density Ratio (%):	**102.5**
Min Hilf Density Ratio (%):	95

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 57**

Report Date: 03/11/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612053**	**1612054**
ID No.:	1	2
Lot No.:	-	-
Date Sampled:	2/11/2016	2/11/2016
Time Sampled:	am/pm	am/pm
Date Tested:	3/11/2016	3/11/2016
Material Source:	Site Derived	Site Derived
Material Description:	Clay	Clay
To Be Used As	-	-
Sample Location :	N 5782456 E 355150	N 5782458 E 355177
Layer Depth (mm):	200	200
Test Depth (mm):	150	150
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)
Max Size (mm):	19.0	19.0
Oversize Wet (%):	0	8
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.03**	**2.00**
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**
PCWD (t/m^3):	**2.02**	**-**
APCWD (t/m^3)	**-**	**2.11**
O.M.C (%) AS1289.5.7.1:	**-**	**-**
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**
Moisture Variation (of omc):	**1.5% (dry)**	**1% (dry)**
Adjusted Moisture Variation (of omc):	**-**	**-**
Compactive Effort:	Standard	Standard
Hilf Density Ratio (%):	**100.5**	**95.0**
Min Hilf Density Ratio (%):	95	95

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 58**

Report Date: 08/11/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612088**	**1612089**	**1612090**							
ID No.:	1	2	3							
Lot No.:	-	-	-							
Date Sampled:	3/11/2016	3/11/2016	3/11/2016							
Time Sampled:	am/pm	am/pm	am/pm							
Date Tested:	4/11/2016	4/11/2016	4/11/2016							
Material Source:	Site Derived	Site Derived	Site Derived							
Material Description:	Clay	Clay	Clay							
To Be Used As	-	-	-							
Sample Location :	N 5782407 E 355081 Layer 1	N 5782526 E 355187 Layer 2	N 5782551 E 355195 Layer 2							
Layer Depth (mm):	200	200	200							
Test Depth (mm):	150	150	150							
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)							
Max Size (mm):	19.0	19.0	19.0							
Oversize Wet (%):	3	9	4							
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.03**	**2.10**	**2.01**							
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**							
PCWD (t/m^3):	**-**	**-**	**-**							
APCWD (t/m^3)	**2.04**	**2.14**	**2.10**							
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**							
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**							
Moisture Variation (of omc):	**omc**	**1.5% (dry)**	**0.5% (wet)**							
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**							
Compactive Effort:	Standard	Standard	Standard							
Hilf Density Ratio (%):	**99.0**	**98.5**	**95.5**							
Min Hilf Density Ratio (%):	95	95	95							

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 59**
Report Date: 08/11/16
C.G Order No: -
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612115**	**1612116**	**1612117**							
ID No.:	1	2	3							
Lot No.:	-	-	-							
Date Sampled:	4/11/2016	4/11/2016	4/11/2016							
Time Sampled:	pm	pm	pm							
Date Tested:	7/11/2016	7/11/2016	7/11/2016							
Material Source:	Site Derived	Site Derived	Site Derived							
Material Description:	Clay	Clay	Clay							
To Be Used As	-	-	-							
Sample Location :	N 5782445 E 355177	N 5782458 E 355205	N 5782461 E 355121							
Layer Depth (mm):	200	200	200							
Test Depth (mm):	150	150	150							
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)							
Max Size (mm):	19.0	19.0	19.0							
Oversize Wet (%):	9	8	6							
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.04**	**2.07**	**2.02**							
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**							
PCWD (t/m^3):	**-**	**-**	**-**							
APCWD (t/m^3)	**2.06**	**2.15**	**2.05**							
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**							
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**							
Moisture Variation (of omc):	**0.5% (dry)**	**0.5% (dry)**	**2.5% (dry)**							
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**							
Compactive Effort:	Standard	Standard	Standard							
Hilf Density Ratio (%):	**99.0**	**96.0**	**98.0**							
Min Hilf Density Ratio (%):	95	95	95							

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 60**
Report Date: 08/11/16
C.G Order No: -
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612226**	**1612227**
ID No.:	1	2
Lot No.:	-	-
Date Sampled:	7/11/2016	7/11/2016
Time Sampled:	am/pm	am/pm
Date Tested:	8/11/2016	8/11/2016
Material Source:	Site Derived	Site Derived
Material Description:	Clay	Clay
To Be Used As	Fill	Fill
Sample Location :	N 5782563 E 355183	N 5782545 E 355192
Layer Depth (mm):	200	200
Test Depth (mm):	150	150
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)
Max Size (mm):	19.0	19.0
Oversize Wet (%):	9	11
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.03**	**2.07**
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**
PCWD (t/m^3):	**-**	**-**
APCWD (t/m^3)	**2.09**	**2.15**
O.M.C (%) AS1289.5.7.1:	**-**	**-**
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**
Moisture Variation (of omc):	**2.5% (dry)**	**1.5% (dry)**
Adjusted Moisture Variation (of omc):	**-**	**-**
Compactive Effort:	Standard	Standard
Hilf Density Ratio (%):	**97.5**	**96.5**
Min Hilf Density Ratio (%):	95	95

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 61**
Report Date: 12/11/16
C.G Order No: **0**
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612438**	**1612439**	**1612440**	**1612441**						
ID No.:	1	2	3	4						
Lot No.:	-	-	-	-						
Date Sampled:	11/11/2016	11/11/2016	11/11/2016	11/11/2016						
Time Sampled:	am/pm	am/pm	am/pm	am/pm						
Date Tested:	12/11/2016	12/11/2016	12/11/2016	12/11/2016						
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived						
Material Description:	Silty Clay	Silty Clay	Silty Clay	Silty Clay						
To Be Used As	Fill	Fill	Fill	Fill						
Sample Location :	E 355197 N 5782530 FSL	E 355206 N 5782548 FSL	E 354926 N 5782724	E 354963 N 5782728						
Layer Depth (mm):	200	200	200	200						
Test Depth (mm):	175	175	175	175						
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)						
Max Size (mm):	19.0	19.0	19.0	19.0						
Oversize Wet (%):	8	8	12	19						
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.09**	**2.04**	**2.07**	**2.06**						
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**	**-**						
PCWD (t/m^3):	**-**	**-**	**-**	**-**						
APCWD (t/m^3)	**2.20**	**2.19**	**2.17**	**2.24**						
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**	**-**						
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**	**-**						
Moisture Variation (of omc):	**0.5% (wet)**	**0.5% (wet)**	**0.5% (wet)**	**omc**						
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**	**-**						
Compactive Effort:	Standard	Standard	Standard	Standard						
Hilf Density Ratio (%):	**95.0**	**93.0**	**95.5**	**91.5**						
Min Hilf Density Ratio (%):	95	95	95	95						

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 62**

Report Date: 15/11/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612479**	**1612480**	**1612481**	**1612482**	**1612483**	**1612484**	**1612485**			
ID No.:	1	2	3	4	5	6	7			
Lot No.:	-	-	-	-	-	-	-			
Date Sampled:	12/11/2016	12/11/2016	12/11/2016	12/11/2016	12/11/2016	12/11/2016	12/11/2016			
Time Sampled:	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm			
Date Tested:	14/11/2016	14/11/2016	14/11/2016	14/11/2016	14/11/2016	14/11/2016	14/11/2016			
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived			
Material Description:	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay			
To Be Used As	Fill	Fill	Fill	Fill	Fill	Fill	Fill			
Sample Location :	E 354937 N 5782757 FSL	E 354970 N 5782752 FSL	E 355199 N 5782541 FSL	E 355108 N 5782401 FSL	E 355100 N 5782394 FSL	E 354928 N 5782720 FSL	E 354959 N 5782735 FSL			
Layer Depth (mm):	200	200	200	200	200	200	200			
Test Depth (mm):	175	175	175	175	175	175	175			
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)			
Max Size (mm):	19.0	19.0	19.0	19*	19.0	19.0	19.0			
Oversize Wet (%):	6	20	13	0	0	13	0			
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.16**	**2.11**	**2.22**	**2.05**	**1.83**	**2.03**	**2.21**			
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-	-	-	-			
PCWD (t/m^3):	-	-	-	**2.04**	**2.03**	-	**2.22**			
APCWD (t/m^3)	**2.25**	**2.22**	**2.20**	-	-	**2.22**	-			
O.M.C (%) AS1289.5.7.1:	-	-	-	-	-	-	-			
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-	-	-	-			
Moisture Variation (of omc):	**1.5% (wet)**	**1.5% (wet)**	**0.5% (wet)**	**1.5% (dry)**	**1% (dry)**	**2% (wet)**	**1% (wet)**			
Adjusted Moisture Variation (of omc):	-	-	-	-	-	-	-			
Compactive Effort:	Standard	Standard	Standard	Standard	Standard	Standard	Standard			
Hilf Density Ratio (%):	**96.0**	**95.0**	**101.0**	**100.5**	**90.5**	**91.5**	**99.5**			
Min Hilf Density Ratio (%):	95	95	95	95	95	95	95			

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 63**
Report Date: 15/11/16
C.G Order No: -
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612518**	**1612519**	**1612520**							
ID No.:	1	2	3							
Lot No.:	-	-	-							
Date Sampled:	14/11/2016	14/11/2016	14/11/2016							
Time Sampled:	am/pm	am/pm	am/pm							
Date Tested:	15/11/2016	15/11/2016	15/11/2016							
Material Source:	Site Derived	Site Derived	Site Derived							
Material Description:	Silty Clay	Silty Clay	Silty Clay							
To Be Used As	Fill	Fill	Fill							
Sample Location :	E 354924 N 5782714 FSL	E 354957 N 5782728 FSL	E 354936 N 5782758 FSL							
Layer Depth (mm):	200	200	200							
Test Depth (mm):	175	175	175							
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)							
Max Size (mm):	19.0	19.0	19.0							
Oversize Wet (%):	6	9	0							
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.00**	**2.09**	**1.99**							
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**							
PCWD (t/m^3):	**-**	**-**	**2.06**							
APCWD (t/m^3)	**2.10**	**2.21**	**-**							
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**							
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**							
Moisture Variation (of omc):	**3% (wet)**	**2% (wet)**	**1% (wet)**							
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**							
Compactive Effort:	Standard	Standard	Standard							
Hilf Density Ratio (%):	**95.0**	**95.0**	**96.5**							
Min Hilf Density Ratio (%):	95	95	95							

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 64**
Report Date: 16/11/16
C.G Order No: -
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612572**	**1612573**	**1612574**	**1612575**						
ID No.:	1	2	3	4						
Lot No.:	0	-	-	0						
Date Sampled:	15/11/2016	15/11/2016	15/11/2016	15/11/2016						
Time Sampled:	am/pm	am/pm	am/pm	am/pm						
Date Tested:	16/11/2016	16/11/2016	16/11/2016	16/11/2016						
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived						
Material Description:	Silty Clay	Silty Clay	Silty Clay	Silty Clay						
To Be Used As	Fill	Fill	Fill	Fill						
Sample Location :	E 354908 N 5782762 FSL Layer 3	E354925 N 5782716 FSL Layer 1	E 354944 N 5782713 FSL Layer 3	E 354962 N 5782737 FSL Layer 3						
Layer Depth (mm):	200	200	200	200						
Test Depth (mm):	175	175	175	175						
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)						
Max Size (mm):	19.0	19.0	19.0	19.0						
Oversize Wet (%):	13	7	19	17						
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.11**	**2.06**	**2.11**	**2.17**						
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-						
PCWD (t/m^3):	-	-	-	-						
APCWD (t/m^3)	**2.21**	**2.19**	**2.25**	**2.24**						
O.M.C (%) AS1289.5.7.1:	-	-	-	-						
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-						
Moisture Variation (of omc):	**1.5% (wet)**	**2.5% (wet)**	**omc**	**1.5% (wet)**						
Adjusted Moisture Variation (of omc):	-	-	-	-						
Compactive Effort:	Standard	Standard	Standard	Standard						
Hilf Density Ratio (%):	**95.5**	**94.0**	**94.0**	**97.0**						
Min Hilf Density Ratio (%):	95	95	95	95						

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 65**

Report Date: 16/11/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612622**	**1612623**								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	16/11/2016	16/11/2016								
Time Sampled:	am/pm	am/pm								
Date Tested:	16/11/2016	16/11/2016								
Material Source:	Site Derived	Site Derived								
Material Description:	Silty Clay	Silty Clay								
To Be Used As	Fill	Fill								
Sample Location :	E 354925 N 5782713 FSL Layer 4	E 354936 N 5782760 FSL Layer 4								
Layer Depth (mm):	200	200								
Test Depth (mm):	150	150								
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)								
Max Size (mm):	19.0	19.0								
Oversize Wet (%):	17	18								
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.19**	**2.06**								
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**								
PCWD (t/m^3):	**-**	**-**								
APCWD (t/m^3)	**2.23**	**2.24**								
O.M.C (%) AS1289.5.7.1:	**-**	**-**								
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**								
Moisture Variation (of omc):	**1.5% (wet)**	**1% (wet)**								
Adjusted Moisture Variation (of omc):	**-**	**-**								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	**98.0**	**92.0**								
Min Hilf Density Ratio (%):	95	95								

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

J Lamont

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 66**

Report Date: 16/11/16

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612661**	**1612662**	**1612663**	**1612664**	**1612665**	**1612666**	**1612667**			
ID No.:	1	2	3	4	5	6	7			
Lot No.:	-	-	-	-	-	-	-			
Date Sampled:	17/11/2016	17/11/2016	17/11/2016	17/11/2016	17/11/2016	17/11/2016	17/11/2016			
Time Sampled:	am/pm	am/pm	am/pm	am/pm	am/pm	pm	pm			
Date Tested:	18/11/2016	18/11/2016	18/11/2016	18/11/2016	18/11/2016	18/11/2016	18/11/2016			
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived			
Material Description:	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay			
To Be Used As	Fill	Fill	Fill	Fill	Fill	Fill	Fill			
Sample Location :	E 354926 N 5782761 FSL Layer 5	E 354933 N 5782715 FSL Layer 1	E 354970 N 5782752 FSL	E 354928 N 5782727 FSL Layer 5	E 354931 N 5782723 FSL Layer 3	E 354925 N 5782760 FSL	E 354932 N 5782755 FSL Layer 4			
Layer Depth (mm):	175	175	175	175	175	175	175			
Test Depth (mm):	150	150	150	150	150	150	150			
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)			
Max Size (mm):	19.0	19.0	19.0	19.0	19.0	19.0	19.0			
Oversize Wet (%):	12	5	13	12	0	10	18			
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.22**	**2.16**	**2.18**	**2.23**	**2.00**	**2.15**	**2.14**			
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**	**-**	**-**	**-**	**-**			
PCWD (t/m^3):	**-**	**-**	**-**	**-**	**1.98**	**-**	**-**			
APCWD (t/m^3)	**2.22**	**2.23**	**2.22**	**2.21**	**-**	**2.24**	**2.20**			
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**	**-**	**-**	**-**	**-**			
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**	**-**	**-**	**-**	**-**			
Moisture Variation (of omc):	**0.5% (wet)**	**1% (wet)**	**1% (wet)**	**2.5% (wet)**	**omc**	**2% (wet)**	**omc**			
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**	**-**	**-**	**-**	**-**			
Compactive Effort:	Standard	Standard	Standard	Standard	Standard	Standard	Standard			
Hilf Density Ratio (%):	**100.0**	**97.0**	**98.5**	**101.0**	**101.0**	**96.0**	**97.5**			
Min Hilf Density Ratio (%):	95	95	95	95	95	95	95			

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 67**

Report Date: 21/11/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612736**	**1612737**	**1612738**							
ID No.:	1	2	3							
Lot No.:	-	-	-							
Date Sampled:	18/11/2016	18/11/2016	18/11/2016							
Time Sampled:	pm	pm	pm							
Date Tested:	19/11/2016	19/11/2016	21/11/2016							
Material Source:	Site Derived	Site Derived	Site Derived							
Material Description:	Mudstone	Mudstone	Mudstone							
To Be Used As	Fill	Fill	Fill							
Sample Location :	E354926 N5782726	E354917 N5782753	E354963 N5782730							
Layer Depth (mm):	200	200	200							
Test Depth (mm):	150	150	150							
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)							
Max Size (mm):	19.0	19.0	19.0							
Oversize Wet (%):	19	11	13							
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.17**	**2.11**	**2.19**							
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**							
PCWD (t/m^3):	**-**	**-**	**-**							
APCWD (t/m^3)	**2.26**	**2.18**	**2.21**							
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**							
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**							
Moisture Variation (of omc):	**omc**	**1.5% (wet)**	**omc**							
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**							
Compactive Effort:	Standard	Standard	Standard							
Hilf Density Ratio (%):	**96.0**	**96.5**	**99.5**							
Min Hilf Density Ratio (%):	95	95	95							

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 68**

Report Date: 21/11/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612796**	**1612797**	**1612798**							
ID No.:	1	2	3							
Lot No.:	-	-	-							
Date Sampled:	19/11/2016	19/11/2016	19/11/2016							
Time Sampled:	am/pm	am/pm	am/pm							
Date Tested:	21/11/2016	21/11/2016	21/11/2016							
Material Source:	Site Derived	Site Derived	Site Derived							
Material Description:	Clay	Clay	Clay							
To Be Used As	Fill	Fill	Fill							
Sample Location :	E354926 N5782713	E354926 N5782740	E354963 N5782785							
Layer Depth (mm):	200	200	200							
Test Depth (mm):	150	150	150							
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)							
Max Size (mm):	19.0	19.0	19.0							
Oversize Wet (%):	16	15	11							
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.19**	**2.14**	**2.17**							
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**							
PCWD (t/m^3):	**-**	**-**	**-**							
APCWD (t/m^3)	**2.28**	**2.25**	**2.21**							
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**							
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**							
Moisture Variation (of omc):	**3% (wet)**	**0.5% (wet)**	**omc**							
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**							
Compactive Effort:	Standard	Standard	Standard							
Hilf Density Ratio (%):	**96.0**	**95.0**	**98.5**							
Min Hilf Density Ratio (%):	95	95	95							

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

J Lamont

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

Report Number: **380735 - 69**

Report Date: 21/11/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

HILF DENSITY RATIO REPORT

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612812**									
ID No.:	1									
Lot No.:	-									
Date Sampled:	21/11/2016									
Time Sampled:	am									
Date Tested:	21/11/2016									
Material Source:	Site Derived									
Material Description:	Clay									
To Be Used As	Fill									
Sample Location :	E354945 N5782779									
Layer Depth (mm):	200									
Test Depth (mm):	150									
Sampling Procedure:	AS1289.1.2.1.6.4(b)									
Max Size (mm):	19.0									
Oversize Wet (%):	0									
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**1.96**									
Fld. Moisture Content (%) AS1289.2.1.1:	**-**									
PCWD (t/m^3):	**1.97**									
APCWD (t/m^3)	**-**									
O.M.C (%) AS1289.5.7.1:	**-**									
Moisture Ratio (%) AS1289.5.4.1:	**-**									
Moisture Variation (of omc):	**0.5% (dry)**									
Adjusted Moisture Variation (of omc):	**-**									
Compactive Effort:	Standard									
Hilf Density Ratio (%):	**99.5**									
Min Hilf Density Ratio (%):	95									

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

J Lamont

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 70**
Report Date: 22/11/16
C.G Order No: **0**
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1612853**
ID No.:	2
Lot No.:	-
Date Sampled:	21/11/2016
Time Sampled:	pm
Date Tested:	22/11/2016
Material Source:	Site Derived
Material Description:	Clay
To Be Used As	Fill
Sample Location :	Thompsons Rd E354928 N5782724 -
Layer Depth (mm):	200
Test Depth (mm):	150
Sampling Procedure:	AS1289.1.2.1.6.4(b)
Max Size (mm):	19.0
Oversize Wet (%):	8
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.22**
Fld. Moisture Content (%) AS1289.2.1.1:	**-**
PCWD (t/m^3):	**-**
APCWD (t/m^3)	**2.22**
O.M.C (%) AS1289.5.7.1:	**-**
Moisture Ratio (%) AS1289.5.4.1:	**-**
Moisture Variation (of omc):	**1% (wet)**
Adjusted Moisture Variation (of omc):	**-**
Compactive Effort:	Standard
Hilf Density Ratio (%):	**100.0**
Min Hilf Density Ratio (%):	95

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 71**
Report Date: 30/11/16
C.G Order No: -
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1613092**	**1613093**								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	28/11/2016	28/11/2016								
Time Sampled:	am/pm	am/pm								
Date Tested:	29/11/2016	29/11/2016								
Material Source:	Site derived	Site derived								
Material Description:	Clay	Clay								
To Be Used As	-	-								
Sample Location :	N 5782785 E 354914 Layer 1	N 5782782 E 354951 Layer 1								
Layer Depth (mm):	200	200								
Test Depth (mm):	150	150								
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)								
Max Size (mm):	19.0	19.0								
Oversize Wet (%):	10	5								
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.19**	**2.22**								
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**								
PCWD (t/m^3):	**-**	**-**								
APCWD (t/m^3)	**2.18**	**2.21**								
O.M.C (%) AS1289.5.7.1:	**-**	**-**								
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**								
Moisture Variation (of omc):	**omc**	**1% (dry)**								
Adjusted Moisture Variation (of omc):	**-**	**-**								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	**100.0**	**100.5**								
Min Hilf Density Ratio (%):	95	95								

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 72**

Report Date: 02/12/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1613147**	**1613148**	**1613149**	**1613150**	**1613151**	**1613152**				
ID No.:	1	2	3	4	5	6				
Lot No.:	-	-	-	-	-	-				
Date Sampled:	29/11/2016	29/11/2016	29/11/2016	29/11/2016	29/11/2016	29/11/2016				
Time Sampled:	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm				
Date Tested:	30/11/2016	30/11/2016	30/11/2016	30/11/2016	30/11/2016	30/11/2016				
Material Source:	Site derived	Site derived	Site derived	Site derived	Site derived	Site derived				
Material Description:	Clay	Clay	Clay	Clay	Clay	Clay				
To Be Used As	Fill	Fill	Fill	Fill	Fill	Fill				
Sample Location :	N 5782789 E 354910 Layer 2	N 5782784 E 354945 Layer 2	N 5782772 E 354908 Layer 3	N 5782777 E 354938 Layer 3	N 5782783 E 354916 Layer 4	N 5782780 E 354948 Layer 4				
Layer Depth (mm):	200	200	200	200	200	200				
Test Depth (mm):	150	150	150	150	150	150				
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)				
Max Size (mm):	19.0	19.0	19.0	19.0	19.0	19.0				
Oversize Wet (%):	16	18	12	15	4	7				
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.19**	**2.07**	**2.21**	**2.14**	**2.13**	**2.13**				
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-	-	-				
PCWD (t/m^3):	-	-	-	-	-	-				
APCWD (t/m^3)	**2.26**	**2.24**	**2.08**	**2.28**	**2.18**	**2.10**				
O.M.C (%) AS1289.5.7.1:	-	-	-	-	-	-				
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-	-	-				
Moisture Variation (of omc):	**omc**	**0.5% (wet)**	**0.5% (dry)**	**2% (wet)**	**1.5% (wet)**	**3% (wet)**				
Adjusted Moisture Variation (of omc):	-	-	-	-	-	-				
Compactive Effort:	Standard	Standard	Standard	Standard	Standard	Standard				
Hilf Density Ratio (%):	**97.0**	**92.5**	**106.5**	**94.0**	**97.5**	**101.0**				
Min Hilf Density Ratio (%):	95	95	95	95	95	95				

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 73**

Report Date: 02/12/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1613217**	**1613218**	**1613219**	**1613220**	**1613221**	**1613222**				
ID No.:	1	2	3	4	5	6				
Lot No.:	-	-	-	-	-	-				
Date Sampled:	30/11/2016	30/11/2016	30/11/2016	30/11/2016	30/11/2016	30/11/2016				
Time Sampled:	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm				
Date Tested:	1/12/2016	1/12/2016	1/12/2016	1/12/2016	1/12/2016	1/12/2016				
Material Source:	Site derived	Site derived	Site derived	Site derived	Site derived	Site derived				
Material Description:	Clay	Clay	Clay	Clay	Clay	Clay				
To Be Used As	Fill	Fill	Fill	Fill	Fill	Fill				
Sample Location :	N 5782770 E 354927 Layer 5	N 5782767 E 354938 Layer 6	N 5782773 E 354924 Layer 7	N 5782768 E 354936 Layer 8	N 5782785 E 354914 Layer 2	N 5782785 E 354914 Layer 4				
Layer Depth (mm):	200	200	200	200	200	200				
Test Depth (mm):	150	150	150	150	150	150				
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)				
Max Size (mm):	19.0	19.0	19.0	19.0	19.0	19.0				
Oversize Wet (%):	0	6	5	0	7	0				
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.00**	**2.10**	**2.00**	**2.09**	**2.02**	**2.04**				
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-	-	-				
PCWD (t/m^3):	**2.08**	-	-	**2.11**	-	**2.10**				
APCWD (t/m^3)	-	**2.15**	**2.11**	-	**2.19**	-				
O.M.C (%) AS1289.5.7.1:	-	-	-	-	-	-				
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-	-	-				
Moisture Variation (of omc):	**2% (wet)**	**2.5% (wet)**	**omc**	**2% (wet)**	**3% (wet)**	**4.5% (wet)**				
Adjusted Moisture Variation (of omc):	-	-	-	-	-	-				
Compactive Effort:	Standard	Standard	Standard	Standard	Standard	Standard				
Hilf Density Ratio (%):	**96.0**	**97.5**	**95.0**	**99.0**	**92.0**	**97.5**				
Min Hilf Density Ratio (%):	95	95	95	95	95	95				

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate

Location: Clyde North

Customer Order No.: -

HILF DENSITY RATIO REPORT

Report Number: **380735 - 74**

Report Date: 02/12/16

C.G Order No: -

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1613316**	**1613317**	**1613318**	**1613319**						
ID No.:	1	2	3	4						
Lot No.:	-	-	-	-						
Date Sampled:	1/12/2016	1/12/2016	1/12/2016	1/12/2016						
Time Sampled:	am/pm	am/pm	am/pm	am/pm						
Date Tested:	2/12/2016	2/12/2016	2/12/2016	2/12/2016						
Material Source:	Site derived	Site derived	Site derived	Site derived						
Material Description:	Clay	Clay	Clay	Clay						
To Be Used As	Fill	Fill	Fill	Fill						
Sample Location :	N 5782673 E 355264 Layer 1	N 5782701 E 355263 Layer 2	N 5782677 E 354924 Layer 3	N 5782785 E 354914 Layer 2						
Layer Depth (mm):	200	200	200	200						
Test Depth (mm):	150	150	150	150						
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)						
Max Size (mm):	19.0	19.0	19.0	19.0						
Oversize Wet (%):	3	3	3	3						
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.07**	**2.11**	**2.12**	**2.15**						
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-						
PCWD (t/m^3):	-	-	-	-						
APCWD (t/m^3)	**2.14**	**2.17**	**2.15**	**2.14**						
O.M.C (%) AS1289.5.7.1:	-	-	-	-						
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-						
Moisture Variation (of omc):	**2% (wet)**	**3% (wet)**	**1% (wet)**	**1.5% (wet)**						
Adjusted Moisture Variation (of omc):	-	-	-	-						
Compactive Effort:	Standard	Standard	Standard	Standard						
Hilf Density Ratio (%):	**97.0**	**97.5**	**99.0**	**100.5**						
Min Hilf Density Ratio (%):	95	95	95	95						

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd
Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175
Project: Meridian Estate
Location: Clyde North
Customer Order No.: -

Report Number: **380735 - 75**
Report Date: 07/12/16
C.G Order No: -
Test Method: AS1289.5.7.1
Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	**1613352**	**1613353**	**1613354**	**1613355**	**1613356**					
ID No.:	1	2	3	4	5					
Lot No.:	-	-	-	-	-					
Date Sampled:	2/12/2016	2/12/2016	2/12/2016	2/12/2016	2/12/2016					
Time Sampled:	am/pm	am/pm	am/pm	am/pm	am/pm					
Date Tested:	5/12/2016	5/12/2016	5/12/2016	5/12/2016	5/12/2016					
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived					
Material Description:	Clay	Clay	Clay	Clay	Clay					
To Be Used As	Fill	Fill	Fill	Fill	Fill					
Sample Location :	N 5782785 E 354914 Layer 2	N 5782785 E 354914 Layer 4	N 5782709 E 355292 Layer 4	N 5782737 E 355283 Layer 5	N 5782733 E 355292 Layer 6					
Layer Depth (mm):	200	200	200	200	200					
Test Depth (mm):	150	150	150	150	150					
Sampling Procedure:	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)	AS1289.1.2.1.6.4(b)					
Max Size (mm):	19.0	19.0	19.0	19.0	19.0					
Oversize Wet (%):	2	0	4	4	3					
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.11**	**2.06**	**2.04**	**2.13**	**2.08**					
Fld. Moisture Content (%) AS1289.2.1.1:	**-**	**-**	**-**	**-**	**-**					
PCWD (t/m^3):	**-**	**2.10**	**-**	**-**	**-**					
APCWD (t/m^3)	**2.10**	**-**	**2.12**	**2.15**	**2.16**					
O.M.C (%) AS1289.5.7.1:	**-**	**-**	**-**	**-**	**-**					
Moisture Ratio (%) AS1289.5.4.1:	**-**	**-**	**-**	**-**	**-**					
Moisture Variation (of omc):	**2% (wet)**	**0.5% (wet)**	**2% (wet)**	**0.5% (wet)**	**0.5% (dry)**					
Adjusted Moisture Variation (of omc):	**-**	**-**	**-**	**-**	**-**					
Compactive Effort:	Standard	Standard	Standard	Standard	Standard					
Hilf Density Ratio (%):	**100.5**	**98.0**	**96.0**	**99.0**	**96.5**					
Min Hilf Density Ratio (%):	95	95	95	95	95					

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**
Issue Date: 19/02/2013

Head Office
25 Metcalf Street
DANDENONG SOUTH VIC 3175

Ph: +61 3 8796 7900
Fax: +61 3 8796 7944

CHADWICK GEOTECHNICS

HILF DENSITY RATIO REPORT

Customer: Grosevnor Lodge Pty Ltd

Customer Address: 48 Healy Road, Dandenong Sth,Vic 3175

Project: Meridian Estate - Stage 2

Location: Clyde North

Customer Order No.: -

Report Number: **380735.002 - 4**

Report Date: 21/03/17

C.G Order No: **-**

Test Method: AS1289.5.7.1

Page: 1 of 1

Testing performed and reported at our Dandenong South Laboratory 12712

Sample No.:	**1704747**
ID No.:	1
Lot No.:	-
Date Sampled:	18/03/2017
Time Sampled:	am/pm
Date Tested:	20/03/2017
Material Source:	Site Derived
Material Description:	Clay
To Be Used As	Fill
Sample Location :	E354922 N5782519 Layer 1
Layer Depth (mm):	200
Test Depth (mm):	150
Sampling Procedure:	AS1289.1.2.1.6.4(b)
Max Size (mm):	19.0
Oversize Wet (%):	0
Fld. Wet Density (t/m^3) AS 1289.5.8.1:	**2.01**
Fld. Moisture Content (%) AS1289.2.1.1:	**-**
PCWD (t/m^3):	**1.91**
APCWD (t/m^3)	**-**
O.M.C (%) AS1289.5.7.1:	**-**
Moisture Ratio (%) AS1289.5.4.1:	**-**
Moisture Variation (of omc):	**3.5% (dry)**
Adjusted Moisture Variation (of omc):	**-**
Compactive Effort:	Standard
Hilf Density Ratio (%):	**105.5**
Min Hilf Density Ratio (%):	95

Remarks:

ilac-MRA NATA Accreditation No. 12719

Accredited for compliance with ISO/IEC 17025. The results of tests, calibrations and/or measurements included in this document are traceable to Australian/national standards.

APPROVED SIGNATORY

M.Robinson

Form No.: **CG.315.002**

Issue Date: 19/02/2013

CHADWICK GEOTECHNICS

Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900
Fax: +61 3 9706 9431

Report No: HDR:W17DS00032
Issue No: 2
This report replaces all previous issues of report no 'HDR:W17DS00032'.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate
Project No.: 3807351
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation No. 12719

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national

12712

Approved Signatory: M. Robinson
(Senior Technician)
Date of Issue: 10/05/2017

Sample Details

Location:	Lots for homes Stage 2-5
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% Std Compaction
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Onsite
Material:	General Fill

Sample Data

Sample ID	S17DS-00123	S17DS-00124	S17DS-00125	S17DS-00126		
Field Sample ID	1	2	3	4		
Date Tested	4/04/2017	4/04/2017	4/04/2017	4/04/2017		
Location	E: 355071	E 355103	Retest	Retest		
	N: 5782401	N: 5782410	Stage 2	Stage 3		
	Stage 5					

Field and Laboratory Data

Depth of Test (mm)	150	150	150	150		
Depth of Layer (mm)	175	175	175	175		
AS Sieve Size (mm)	19.0	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0	0		
Field Wet Density (t/m³)	1.95	2.00	2.00	2.07		
Peak Converted Wet Density (t/m³)	1.98	1.97	1.94	2.08		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Variation (%)	1.0 dry	4.0 dry	3.5 dry	0.5 dry		
Hilf Density Ratio (%)	**98.5**	**101.5**	**103.0**	**100.0**		

Comments

CHADWICK GEOTECHNICS

Dandenong South
ACN 143 009 330
25 Metcalf Street
DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900
Fax: +61 3 9706 9431

Report No: HDR:W17DS00422
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate
Project No.: 3807351
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation No. 12719

The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national 12712

Approved Signatory: M. Robinson
(Senior Technician)
Date of Issue: 10/05/2017

Sample Details

Location: Stage 6
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% Standard Compaction
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: General Fill

Sample Data

Sample ID	S17DS-01574	S17DS-01575	S17DS-01576	S17DS-01577		
Field Sample ID	1	2	3	4		
Date Tested	5/05/2017	5/05/2017	5/05/2017	5/05/2017		
E	355072	355098	354922	355071		
N	5782248	5782288	5782519	5782202		
Soil Description	Clay	Clay	Clay	Clay		
Field and Laboratory Data						
Depth of Test (mm)	150	150	150	150		
Depth of Layer (mm)	200	200	200	200		
Field Wet Density (t/m³)	2.17	2.10	2.02	2.06		
Peak Converted Wet Density (t/m³)	2.02	2.04	1.98	2.05		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Variation (%)	1.5 dry	1.0 dry	2.0 dry	0.5 dry		
Hilf Density Ratio (%)	**107.0**	**103.0**	**102.5**	**100.5**		

Comments

Appendix D: Controlled fill certificates

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 127 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 153 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 154 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 155 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 156 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 157 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 158 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 159 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 160 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot 161 Meridian Estate Stage 1 Clyde North VIC	Chadwick Geotechnics REF	: 3807351
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: May 2017

SUMMARY

Chadwick Geotechnics Pty Ltd conducted Level 1 inspection and testing, in accordance with Section 8.2 Level 1 inspection and Testing *AS3798-2007, Guidelines on earthworks for commercial and residential developments,* during the filling of Meridian Estate Stage 1 in Clyde North.

So far as it is able to be determined, the site derived fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1) to be achieved within moisture content limits of 4.0% wet to 4.0% dry of the soils optimum moisture content (OMC).

LIMITATIONS

This Certificate has been commissioned for the filling of the area mentioned above. No responsibility or liability will be accepted for the use of this report for any purpose other than that for which Chadwick Geotechnics Pty Ltd was engaged, specifically for Level 1 Inspection and Testing of the structural fill (excluding top soil).

This report is based on the conditions present and factors affecting the soil at the time of inspection, namely the 29th July 2016 to the 5th May 2017. No responsibility or liability will be accepted and Chadwick Geotechnics Pty Ltd is indemnified to the full extent permitted by law in respect of the use of this Certificate where there has been a change in the nature of the project, or in the site conditions since the site testing.

Chadwick Geotechnics PTY LTD

Robert Barden
Geotechnical Engineer

Tim Chadwick
Project Director

www.chadwickgeotechnics.com.au