

REPORT

Level One Inspection and Testing Services

Meridian Estate Stage 8, Clyde North
Lot's 801 to 810 and 813 to 822

Prepared for:

Grosvenor Lodge Pty Ltd

December 2017

Our Ref: 3807351.008 Stage 8.v1



**CHADWICK
GEOTECHNICS**

Document Control

Title: Level One Inspection and Testing Services					
Date	Version	Description	Prepared by:	Reviewed by:	Authorised by:
15-12-17	1	Level One Report, 3807351.008.v1	PRS/JHS	RHB	TJC

Distribution:

Grosvenor Lodge Pty Ltd

Chadwick Geotechnics Pty Ltd (FILE)

pdf

1 copy

Table of contents

1	Introduction	1
2	Project details	1
3	Specification	2
4	Inspection and testing	3
5	Conclusion	4
6	Applicability	5

Appendix A: Density test location plan

Appendix B: Table of field density test results

Appendix C: NATA endorsed laboratory test reports

Appendix D: Controlled fill certificates

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 8 in Clyde North.

The inspection and testing of earthworks has been carried out in accordance with AS3798-2007 Table 8.1¹, '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

Project Name	:	Meridian Estate Stage 8
Project Location	:	Clyde North
Municipality	:	City of Casey
Client	:	Grosvenor Lodge Pty Ltd
Project Manager	:	Robert Barden – Geotechnical Engineer
Inspected & Tested by	:	Janusz Kwiatkowski – Technician and others as required

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



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

2 Geology

Published information² 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.
- Palaeozoic Age Murrindindi Supergroup (Sm) comprising of mudstone and sandstone
- Neogene Age Baxter Sandstone Formation (Nxx) comprising of sandstone, conglomerate, siltstone and ironstone.

3 Specification

A summary of the specification is shown below:

Compaction Requirement	95% Standard Compaction
------------------------	-------------------------

² BIBBY, L.M., 2004. Simplified 1: 4 000 000 Geology of Victoria. Geological Survey of Victoria Special Publication. GeoScience Victoria.

4 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 inspection was 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 07th May 2016 and was completed on the 24th October 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 1289.5.8.1³. 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.

The actual testing frequency was governed by Table 8.1 of AS 3798 which provides the required testing frequency for a Type 1 development, as identified in clause 1.2.8. Based on an area of fill that is consistent and “essentially homogeneous”. Therefore not every residential lot within the estate was density tested during earthwork filling.

The filling works for Stage 8 was not continuous resulting in breaks in time on site. The filling process also caused a break in the sequential numbering of the density and moisture content test reports. The summary page attached within the appendix includes test results that relate to other stages of earthworks within the Meridian Estate.

A total of twenty six (26) tests were performed across the site. The results show that all tests achieved the specified minimum density at moisture limits between $\pm 3.0\%$ 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.

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

5 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 8 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.

6 Applicability

This report has been prepared in good faith and in accordance with the Chadwick Geotechnics quality system for the earthworks filling within Stage 8 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 07th May 2016 and was completed on the 24th October 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:

Authorised for Chadwick Geotechnics Pty Ltd by:




.....
Robert Barden

.....
Timothy Chadwick

Geotechnical Engineer

Project Director

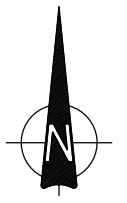
© Chadwick Geotechnics Pty Ltd.

Other than for the exclusive use of our client Grosvenor Lodge Pty Ltd, no part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise, without the prior written permission of Chadwick Geotechnics Pty Ltd.


www.chadwickgeotechnics.com.au

Appendix A: Density test location plan

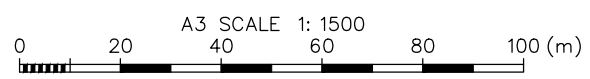
\\tgroup.local\corporate\Dandenong\Geo Projects\3807351\7 Stage 7\WorkingMaterial\CAD\FIG\3807351-F01.dwg, Layout1, 6/12/2017 1:37:22 PM, jc




LEGEND

 1704746 Level one half density test location

Property boundaries and road outline sourced from Brown Property Group
(File ref: 8129-8-E-RG_P2 and 8129-7-E-RD-P4 received 02/11/2017)



 CHADWICK GEOTECHNICS 25 Metcalf Street Dandenong South, Victoria, 3175 Ph: (03) 8796 7900 www.chadwickt.com.au	<table border="1"> <tr><td>DRAWN</td><td>KAH</td><td>Dec.17</td></tr> <tr><td>DRAFTING CHECKED</td><td></td><td></td></tr> <tr><td>APPROVED</td><td></td><td></td></tr> </table>	DRAWN	KAH	Dec.17	DRAFTING CHECKED			APPROVED			GROSVENOR LODGE PTY LTD LEVEL ONE INSPECTION AND TESTING MERIDIAN ESTATE STAGE 7 & 8 Half Density Test Location Plan	FIG. No. Figure 1	REV. 0
	DRAWN	KAH	Dec.17										
	DRAFTING CHECKED												
	APPROVED												
	CADFILE : \\3807351-F01.dwg	SCALES (AT A3 SIZE) AS SHOWN											
PROJECT No. 3807351													
Figure 1													
REV. 0													

Appendix B: Table of field density test results



Hilf Summary Table

Chadwick Geotechnics
25 Metcalf Street
Dandenong South VIC 3175

3807351.008 Meridian Estate Stage 8

Tel : (03) 8796 7900
Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Location [E]	Location [N]	Layer	Density Ratio HILF test (%)	Moisture Variation From OMC	Pass / Fail	Remarks
16	1606090	7/05/2016	57	354969	5782230	1	97.5	1.5 dry	Pass	
19	1606360	13/05/2016	67	354940	5782223	1	103.5	2 dry	Pass	
20	1606384	14/05/2016	73	354976	5782244	2	103.5	1.5 dry	Pass	
21	1606393	16/05/2016	76	354939	5782234	2	99	2 dry	Pass	
21	1606394	16/05/2016	77	354936	5782215	2	104.5	1.5 dry	Pass	
21	1606395	16/05/2016	78	354926	5782241	2	105.5	1.5 dry	Pass	
26	1606453	17/05/2016	83	354902	5782228	1	103.5	2 dry	Pass	
27	1606514	18/05/2016	86	354853	5782243	1	101	0.5 dry	Pass	
27	1606515	18/05/2016	87	354854	5782240	1	96.5	omc	Pass	
27	1606516	18/05/2016	88	354862	5782219	1	97.5	0.5 wet	Pass	
27	1606517	18/05/2016	89	354831	5782219	1	100.5	1.5 dry	Pass	
27	1606518	18/05/2016	90	354807	5782241	1	98.5	0.5 wet	Pass	
27	1606519	18/05/2016	91	354812	5782210	1	101	0.5 wet	Pass	
29	1606695	21/05/2016	98	354831	5782207	2	99	3 wet	Pass	
29	1606696	21/05/2016	99	354835	5782243	2	103	0.5 wet	Pass	
29	1606697	21/05/2016	100	354860	5782247	2	102.5	1 dry	Pass	
30	1607006	30/05/2016	103	354998	5782235	3	101	1 wet	Pass	
34	1607236	3/06/2016	122	354882	5782202	1	102.5	0.5 wet	Pass	
34	1607237	3/06/2016	123	354880	5782219	1	103	1 wet	Pass	
34	1607238	3/06/2016	124	354887	5782234	1	99.5	0.5 wet	Pass	
34	1607239	3/06/2016	125	354861	5782208	1	99	1 wet	Pass	
34	1607240	3/06/2016	126	354864	5782228	1	100.5	0.5 wet	Pass	
34	1607241	3/06/2016	127	354860	5782258	1	103	0.5 wet	Pass	
HDR:W17DS02096	S17DS-07616	24/10/2017	1	354847	5782191	2	100.5	0.4 wet	Pass	
HDR:W17DS02096	S17DS-07617	24/10/2017	2	354838	5782192	1	101.5	0.5 wet	Pass	
HDR:W17DS02096	S17DS-07618	24/10/2017	3	354889	5782199	1	102	0.5 wet	Pass	

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



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 - 16**

Report Date: 10/05/16

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.:	1606088	1606089	1606090						
ID No.:	1	2	3						
Lot No.:	-	-	-						
Date Sampled:	7/05/2016	7/05/2016	7/05/2016						
Time Sampled:	am	am	am						
Date Tested:	9/05/2016	9/05/2016	9/05/2016						
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 354998 N 5782317 Layer 1	E 354969 N 5782264 Layer 1	E 354969 N 5782230 Layer 1						
Layer Depth (mm):	175	175	175						
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	1.96	1.97						
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-						
PCWD (t/m ³):	2.03	2.03	2.03						
APCWD (t/m ³)	-	-	-						
O.M.C (%) AS1289.5.7.1:	-	-	-						
Moisture Ratio (%) AS1289.5.4.1:	-	-	-						
Moisture Variation (of omc):	1.5% (dry)	1.5% (dry)	1.5% (dry)						
Adjusted Moisture Variation (of omc):	-	-	-						
Compactive Effort:	Standard	Standard	Standard						
Hilf Density Ratio (%):	96.0	97.0	97.5						
Min Hilf Density Ratio (%):	95	95	95						

Remarks:



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



HILF DENSITY RATIO REPORT

Report Number: **380735 - 19**

Report Date: 17/05/16

C.G Order No: **151741**

Test Method: AS1289.5.7.1

Page: 1 of 1

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

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	1606359	1606360	1606361	1606362					
ID No.:	1	2	3	4					
Lot No.:	-	-	-	-					
Date Sampled:	13/05/2016	13/05/2016	13/05/2016	13/05/2016					
Time Sampled:	am/pm	am/pm	am/pm	am/pm					
Date Tested:	16/05/2016	16/05/2016	16/05/2016	16/05/2016					
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived					
Material Description:	Clay	Clay	Clay	Clay					
To Be Used As	-	-	-	-					
Sample Location :	E 355074 N 5782278 Layer 2	E 354940 N 5782223 Layer 1	E 354922 N 5782296 Layer 1	E 354925 N 5782264 Layer 1					
Layer Depth (mm):	175	175	175	175					
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:	2.07	1.99	2.04	1.96					
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-					
PCWD (t/m ³):	2.02	1.92	2.06	2.00					
APCWD (t/m ³)	-	-	-	-					
O.M.C (%) AS1289.5.7.1:	-	-	-	-					
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-					
Moisture Variation (of omc):	1% (dry)	2% (dry)	0.5% (wet)	omc					
Adjusted Moisture Variation (of omc):	-	-	-	-					
Compactive Effort:	Standard	Standard	Standard	Standard					
Hilf Density Ratio (%):	102.0	103.5	99.0	97.5					
Min Hilf Density Ratio (%):	95	95	95	95					

Remarks:



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



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 - 20**

Report Date: 17/05/16

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.:	1606381	1606382	1606383	1606384					
ID No.:	1	2	3	4					
Lot No.:	-	-	-	-					
Date Sampled:	14/05/2016	14/05/2016	14/05/2016	14/05/2016					
Time Sampled:	-	-	-	-					
Date Tested:	16/05/2016	16/05/2016	16/05/2016	16/05/2016					
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived					
Material Description:	Clay	Clay	Clay	Clay					
To Be Used As	-	-	-	-					
Sample Location :	E 354995 N 5782323 Layer 2	E 354985 N 5782282 Layer 2	E 354979 N 5782282 Layer 2	E 354976 N 5782244 Layer 2					
Layer Depth (mm):	175	175	175	175					
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:	2.13	2.12	2.05	2.13					
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-					
PCWD (t/m ³):	2.09	2.06	2.04	2.06					
APCWD (t/m ³):	-	-	-	-					
O.M.C (%) AS1289.5.7.1:	-	-	-	-					
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-					
Moisture Variation (of omc):	0.5% (wet)	2% (dry)	2% (dry)	1.5% (dry)					
Adjusted Moisture Variation (of omc):	-	-	-	-					
Compactive Effort:	Standard	Standard	Standard	Standard					
Hilf Density Ratio (%):	102.0	103.0	100.5	103.5					
Min Hilf Density Ratio (%):	95	95	95	95					

Remarks:



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



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** - 21

Report Date: 18/05/16

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.:	1606391	1606392	1606393	1606394	1606395	1606396			
ID No.:	1	2	3	4	5	6			
Lot No.:	-	-	-	-	-	-			
Date Sampled:	16/05/2016	16/05/2016	16/05/2016	16/05/2016	16/05/2016	16/05/2016			
Time Sampled:	am	am	am	am	am	am			
Date Tested:	16/05/2016	16/05/2016	16/05/2016	17/05/2016	16/05/2016	17/05/2016			
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 :	E 354941 N 5782276 Layer 2	E 354941 N 5782269 Layer 2	E 354939 N 5782234 Layer 2	E 354936 N 5782215 Layer 2	E 354926 N 5782241 Layer 2	E 354929 N 5782296 Layer 2			
Layer Depth (mm):	175	175	175	175	175	175			
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	0	0	0	0	0			
Fld. Wet Density (t/m ³) AS 1289.5.8.1:	2.10	2.15	2.01	2.15	2.12	2.07			
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-	-	-			
PCWD (t/m ³):	2.08	2.04	2.03	2.06	2.01	2.01			
APCWD (t/m ³)	-	-	-	-	-	-			
O.M.C (%) AS1289.5.7.1:	-	-	-	-	-	-			
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-	-	-			
Moisture Variation (of omc):	omc	1.5% (dry)	2% (dry)	1.5% (dry)	1.5% (dry)	2.5% (dry)			
Adjusted Moisture Variation (of omc):	-	-	-	-	-	-			
Compactive Effort:	Standard	Standard	Standard	Standard	Standard	Standard			
Hilf Density Ratio (%):	101.0	105.5	99.0	104.5	105.5	102.5			
Min Hilf Density Ratio (%):	95	95	95	95	95	95			

Remarks:



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



HILF DENSITY RATIO REPORT

Report Number: **380735 - 26**

Report Date: 23/05/16

C.G Order No: **151744**

Test Method: AS1289.5.7.1

Page: 1 of 1

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

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	1606450	1606451	1606452	1606453	1606454	1606455			
ID No.:	1	2	3	4	5	6			
Lot No.:	-	-	-	-	-	-			
Date Sampled:	17/05/2016	17/05/2016	17/05/2016	17/05/2016	17/05/2016	17/05/2016			
Time Sampled:	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm			
Date Tested:	19/05/2016	19/05/2016	19/05/2016	19/05/2016	19/05/2016	19/05/2016			
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 354849 N 5782305 Layer 1	E 354881 N 5782304 Layer 1	E 354831 N 5782280 Layer 1	E 354902 N 5782228 Layer 1	E 354894 N 5782276 Layer 1	E 354855 N 5782268 Layer 1			
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	0	0	0			
Fld. Wet Density (t/m ³) AS 1289.5.8.1:	2.09	2.12	2.02	2.09	2.07	2.08			
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-	-	-			
PCWD (t/m ³):	2.09	1.99	2.02	2.02	2.07	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)	0.5% (wet)	0.5% (wet)	2% (dry)	0.5% (wet)	0.5% (wet)			
Adjusted Moisture Variation (of omc):	-	-	-	-	-	-			
Compactive Effort:	Standard	Standard	Standard	Standard	Standard	Standard			
Hilf Density Ratio (%):	100.0	106.0	100.0	103.5	100.0	100.5			
Min Hilf Density Ratio (%):	95	95	95	95	95	95			

Remarks:



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



HILF DENSITY RATIO REPORT

Report Number: **380735 - 27**

Report Date: 23/05/16

C.G Order No: **151745**

Test Method: AS1289.5.7.1

Page: 1 of 1

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

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	1606514	1606515	1606516	1606517	1606518	1606519			
ID No.:	1	2	3	4	5	6			
Lot No.:	-	-	-	-	-	-			
Date Sampled:	18/05/2016	18/05/2016	18/05/2016	18/05/2016	18/05/2016	18/05/2016			
Time Sampled:	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm			
Date Tested:	19/05/2016	19/05/2016	19/05/2016	19/05/2016	19/05/2016	19/05/2016			
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 354853 N 5782243 Layer 1	E 354854 N 5782240 Layer 1	E 354862 N 5782219 Layer 1	E 354831 N 5782219 Layer 1	E 354807 N 5782241 Layer 1	E 354812 N 5782210 Layer 1			
Layer Depth (mm):	175	175	175	175	175	175			
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	0	0	0	0	0			
Fld. Wet Density (t/m ³) AS 1289.5.8.1:	2.05	1.97	2.00	2.04	2.02	2.14			
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-	-	-			
PCWD (t/m ³):	2.03	2.04	2.05	2.03	2.05	2.12			
APCWD (t/m ³)	-	-	-	-	-	-			
O.M.C (%) AS1289.5.7.1:	-	-	-	-	-	-			
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-	-	-			
Moisture Variation (of omc):	0.5% (dry)	omc	0.5% (wet)	1.5% (dry)	0.5% (wet)	0.5% (wet)			
Adjusted Moisture Variation (of omc):	-	-	-	-	-	-			
Compactive Effort:	Standard	Standard	Standard	Standard	Standard	Standard			
Hilf Density Ratio (%):	101.0	96.5	97.5	100.5	98.5	101.0			
Min Hilf Density Ratio (%):	95	95	95	95	95	95			

Remarks:



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



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 - 29**

Report Date: 23/05/16

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.:	1606695	1606696	1606697	1606698	1606699				
ID No.:	1	2	3	4	5				
Lot No.:	-	-	-	-	-				
Date Sampled:	21/05/2016	21/05/2016	21/05/2016	21/05/2016	21/05/2016				
Time Sampled:	am	am	am	am	am				
Date Tested:	23/05/2016	23/05/2016	23/05/2016	23/05/2016	23/05/2016				
Material Source:	Site Derived	Site Derived	Site Derived	Site Derived	Site Derived				
Material Description:	Silty Clay	Silty Clay	Silty Clay	Silty Clay	Silty Clay				
To Be Used As	Fill	Fill	Fill	Fill	Fill				
Sample Location :	E 354831 N 5782207 Layer 2	E 354835 N 5782243 Layer 2	E 354860 N 5782247 Layer 2	E 354816 N 5782284 Layer 2	E 355055 N 5782322 Layer 2				
Layer Depth (mm):	150	150	150	150	150				
Test Depth (mm):	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)				
Max Size (mm):	19.0	19.0	19.0	19.0	19.0				
Oversize Wet (%):	0	0	0	0	0				
Fld. Wet Density (t/m ³) AS 1289.5.8.1:	2.04	2.10	2.03	2.04	1.99				
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-	-				
PCWD (t/m ³):	2.06	2.03	1.98	2.07	1.97				
APCWD (t/m ³):	-	-	-	-	-				
O.M.C (%) AS1289.5.7.1:	-	-	-	-	-				
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-	-				
Moisture Variation (of omc):	3% (wet)	0.5% (wet)	1% (dry)	2% (dry)	2% (dry)				
Adjusted Moisture Variation (of omc):	-	-	-	-	-				
Compactive Effort:	Standard	Standard	Standard	Standard	Standard				
Hilf Density Ratio (%):	99.0	103.0	102.5	98.5	101.0				
Min Hilf Density Ratio (%):	95	95	95	95	95				

Remarks:



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



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 - 30**

Report Date: 02/06/16

C.G Order No: **151750**

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.:	1607006	1607007								
ID No.:	1	2								
Lot No.:	-	-								
Date Sampled:	30/05/2016	30/05/2016								
Time Sampled:	pm	pm								
Date Tested:	31/05/2016	31/05/2016								
Material Source:	Site Derived	Site Derived								
Material Description:	Silty Clay	Silty Clay								
To Be Used As	Fill	Fill								
Sample Location :	E 354998 N 5782235 Layer 3	E 354999 N 5782245 Layer 3								
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 (%):	3	6								
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):	2.09	2.07								
O.M.C (%) AS1289.5.7.1:	-	-								
Moisture Ratio (%) AS1289.5.4.1:	-	-								
Moisture Variation (of omc):	1% (wet)	1% (dry)								
Adjusted Moisture Variation (of omc):	-	-								
Compactive Effort:	Standard	Standard								
Hilf Density Ratio (%):	101.0	101.5								
Min Hilf Density Ratio (%):	95	95								

Remarks:



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



HILF DENSITY RATIO REPORT

Report Number: **380735 - 34**

Report Date: 09/06/16

C.G Order No: **152054**

Test Method: AS1289.5.7.1

Page: 1 of 1

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

Testing performed and reported at our Dandenong South Laboratory 21712

Sample No.:	1607236	1607237	1607238	1607239	1607240	1607241			
ID No.:	1	2	3	4	5	6			
Lot No.:	-	-	-	-	-	-			
Date Sampled:	3/06/2016	3/06/2016	3/06/2016	3/06/2016	3/06/2016	3/06/2016			
Time Sampled:	am/pm	am/pm	am/pm	am/pm	am/pm	am/pm			
Date Tested:	6/06/2016	6/06/2016	6/06/2016	6/06/2016	6/06/2016	6/06/2016			
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 :	354882E 5782202N Layer 1	354880E 5782219N Layer 1	354877E 5782234N Layer 1	354861E 5782208N Layer 1	354864E 5782228N Layer 1	354860E 5782258N Layer 1			
Layer Depth (mm):	175	175	175	175	175	175			
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	0	0	0	0	0			
Fld. Wet Density (t/m ³) AS 1289.5.8.1:	2.08	2.13	2.02	2.09	2.07	2.07			
Fld. Moisture Content (%) AS1289.2.1.1:	-	-	-	-	-	-			
PCWD (t/m ³):	2.03	2.07	2.04	2.11	2.05	2.01			
APCWD (t/m ³)	-	-	-	-	-	-			
O.M.C (%) AS1289.5.7.1:	-	-	-	-	-	-			
Moisture Ratio (%) AS1289.5.4.1:	-	-	-	-	-	-			
Moisture Variation (of omc):	0.5% (wet)	1% (wet)	0.5% (wet)	1% (wet)	0.5% (wet)	0.5% (wet)			
Adjusted Moisture Variation (of omc):	-	-	-	-	-	-			
Compactive Effort:	Standard	Standard	Standard	Standard	Standard	Standard			
Hilf Density Ratio (%):	102.5	103.0	99.5	99.0	100.5	103.0			
Min Hilf Density Ratio (%):	95	95	95	95	95	95			

Remarks:



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

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Meridian Estate - Stage 8
Project No.: 3807351.008
Order No.:
TRN:

CG Request No.:
Lot No.:

Accredited for compliance with ISO/IEC 17025
- Testing



Approved Signatory: M. Robinson
(Senior Technician)
Date of Issue: 2/11/2017
 12712
 THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location: Clyde North
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% Standard Compaction +- 3% of OMC
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-07616	S17DS-07617	S17DS-07618		
Field Sample ID	1	2	3		
Date Tested	24/10/2017	24/10/2017	24/10/2017		
Location	E 354847 N 5782191	E 354838 N 5782192	E 354889 N 5782199		
	Layer 2	Layer 1	Layer 1		
Soil Description	Clay Fill	Clay Fill	Clay Fill		

Field and Laboratory Data

Depth of Test (mm)	150	150	150		
Depth of Layer (mm)	200	200	200		
Field Wet Density (t/m ³)	2.02	2.07	2.07		
Peak Converted Wet Density (t/m ³)	2.01	2.04	2.03		
Compactive Effort	Standard	Standard	Standard		
Moisture Variation (%)	0.5 dry	0.5 wet	0.5 wet		
Hilf Density Ratio (%)	100.5	101.5	102.0		

Comments

Appendix D: Controlled fill certificates

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 801
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 802
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 803
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 804
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 805
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 806
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 807
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 808
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 809
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 810
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 813
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 814
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 815
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 816
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 817
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 818
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 819
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 820
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 821
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Lot 822
Meridian Estate Stage 8
Clyde North VIC

Chadwick Geotechnics REF : 3807351 STG8

CLIENT : Grosvenor Lodge Pty Ltd
PO Box 4136
DANDENONG SOUTH VIC 3164

DATE : December 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 the Meridian Estate Stage 8 in Clyde North.

So far as it is able to be determined, the fill was placed in accordance with the Specification that required a minimum density ratio of 95% of HILF Density (AS1289.5.7.1). The moisture content of the soils tested was between 3.0% wet to 3.0% 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 07th May 2016 and was completed on the 24th October 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

© Chadwick Geotechnics Pty Ltd.

No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying or otherwise other than in accordance with the limitations and for the purpose provided for above.

www.chadwickgeotechnics.com.au

