CHADWICK GEOTECHNICS

REPORT

Level One Inspection and Testing Services

Meridian Central Estate Stage 31, Clyde
Lot's 3113 to 3120 & Lot's 3123 to 3140

Prepared for:

Grosvenor Lodge Pty Ltd

13 April 2022

Our Ref: 3807351.031.v1

25 Metcalf Street, Dandenong South, Vic 3175, Australia
www.chadwickgeotechnics.com.au

Document Control

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Date	Version	Description	Prepared by:	Reviewed by:	Authorised by:
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Distribution:

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

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1 Introduction

As part of the construction of the Meridian Central Estate development in Clyde North, Chadwick Geotechnics Pty Ltd (Chadwick Geotechnics), has been engaged by Grosvenor Lodge Pty Ltd to provide Geotechnical Inspection and Testing Authority (GITA) services for the earthworks within Stage 31 of the Estate.

This report presents the earthworks supervision methods and density testing results for the residential lot's 3113 to 3120 and 3123 to 3140 within the Stage 31 site. The earthworks were completed between 16 August 2021 and 16 September 2021.

The specification required the earthworks to be completed under Level 1 Supervision, that is, full-time Inspection and Testing of the earthworks. Chadwick Geotechnics were onsite for the duration of the earthworks program.

2 Project details

2.1 Location

The Meridian Central Estate is in Clyde North, the Stage 31 site is located North of Hardys Road and East of Stage 29 and 30 within the Meridian Central site. The stage is being developed as a residential development.

A site plan of the site is included in Appendix A.

2.2 Fill specification

A summary of the specification is shown below:

- All filling in excess of 300mm depth shall be constructed to specifications satisfying the requirements of AS 3798-2007 "Guidelines on Earthworks for Commercial and Residential Developments".
- All filling works shall be undertaken with supervision to the standard detailed as "Level 1 Inspection and Testing" in AS 3798-2007, such that the supervisor will issue a notice detailing that the works comply with the specifications and drawings.
- The fill soils to comply with the 'Suitable Material' in accordance with Section 4.4 of the AS3798-2007, and the following:
  - Maximum particle size of 150mm.
  - Particles over 37.5mm diameter not to exceed 20% of the material.
  - Organic soils, topsoil, silts, or soils containing organic matter, wood, plastics, metal or other deleterious materials are not acceptable.
- Subgrade to be proof rolled in presence of the Level 1 Inspector prior to the placement of engineered fill.
- Fill to be compacted in near horizontal layers.
- Compaction to achieve a ratio of at least 95% Standard MDD (maximum dry density).
- Frequency of testing to be in accordance with Table 8.1 of AS3798-2007.

2.3 Roles

The organisations and their roles are presented in Table 2.1 below.

Table 2.1 Project roles

Role	Organisation
Developer	Grosvenor Lodge Pty Ltd
Geotechnical Inspection and Testing Authority (GITA)	Chadwick Geotechnics Pty Ltd
Civil Designer / Superintendent	Beveridge Williams Pty Ltd
Earthworks Contractor	Brown Property Group Pty Ltd

2.4 Source of material

The material used on site was imported from locally sources.

2.5 General

The inspection and testing of earthworks have 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 a Type 1 project (large scale operation). Compaction control laboratory testing was undertaken within Chadwick Geotechnics NATA accredited laboratories in accordance with AS1289 'Methods of Testing Soils for Engineering Purposes'.

2.6 Subgrade inspection

Prior to fill being placed the subgrade was inspected. The inspections were performed in accordance with the Level 1 guidelines presented in AS 3798–2007 Section 5.5. The stripped surface was stripped to natural clay, and the area was found to be firm and free of vegetation and other deleterious material. All pre-existing uncontrolled fill was removed prior to the placement of engineered fill to achieve the design levels.

2.7 Earthwork supervision

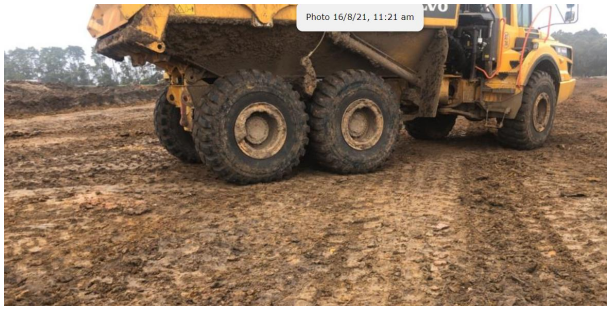
Full time Level 1 inspection and testing of the Stage 31 filling operations commenced on 16 August 2021 and was completed on 16 September 2021. During this period Chadwick Geotechnics was on site all the time (except when there were no earthworks) and observed the earthworks, the placing of fill including the supply of material, conditioning of material (moisture conditioning and oversize removal), placement and compaction of the fill material.

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

Below are two photographs of typical earthwork operations completed during earthworks, See Photographs 2.1 and 2.2 below.

Photograph 2.1:

Material conditioning August 2021



Photograph 2.2:

Material delivery August 2021

2.8 Earthwork equipment

The fill was placed and compacted using vibrating Pad foot rollers. Water trucks with water cannons attached were used to moisture condition the soil materials.

2.9 Geotechnical sampling and testing

Field density and moisture content testing was carried out using a calibrated portable density and moisture gauge in accordance with AS 1289.5.8.1. The HILF rapid compaction test was used for peak converted wet density determinations in accordance with AS 1289.5.7.1. Test locations were recorded using hand held GPS units. A site plan showing the field density test locations is provided in Appendix A. A summary of Hilf density testing is presented in Appendix B and the Hilf density test reports are presented in Appendix C.

A total of 42 tests were performed across the Stage 31 area during the filling process.

The results show that 1 test failed to meet the specification requirements for the project. The earthworks contractor was advised of the test that failed and the fill relevant to the area was reworked, reconditioned, re-compacted and subsequently retested. The result showed that the test achieved the specification requirements for the project so far.

A summary of the Hilf density test reports is provided within Appendix B and all the test reports are provided within Appendix C, a controlled fill certificate is provided within Appendix D.

3 Conclusion

On the basis of our inspections 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 fill material placed was tested at a suitable frequency in accordance with AS 3798-2007- Table 8.1 and the results indicate the compacted material achieved the minimum density requirement of the specification.
- Given the consistent construction practices followed by the earthworks contractor, and as witnessed by Chadwick Geotechnics, 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 have been performed in accordance with the requirements of Section 8.2 of AS3798-2007 - Level 1 Inspection and Testing.

4 Applicability

This report has been prepared for the exclusive use of our client Grosvenor Lodge Pty Ltd , with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose, or by any person other than our client, without our prior written agreement.

Recommendations and opinions in this report are based on data from discrete investigation locations. The nature and continuity of subsoil away from these locations are inferred but it must be appreciated that actual conditions could vary from the assumed model.

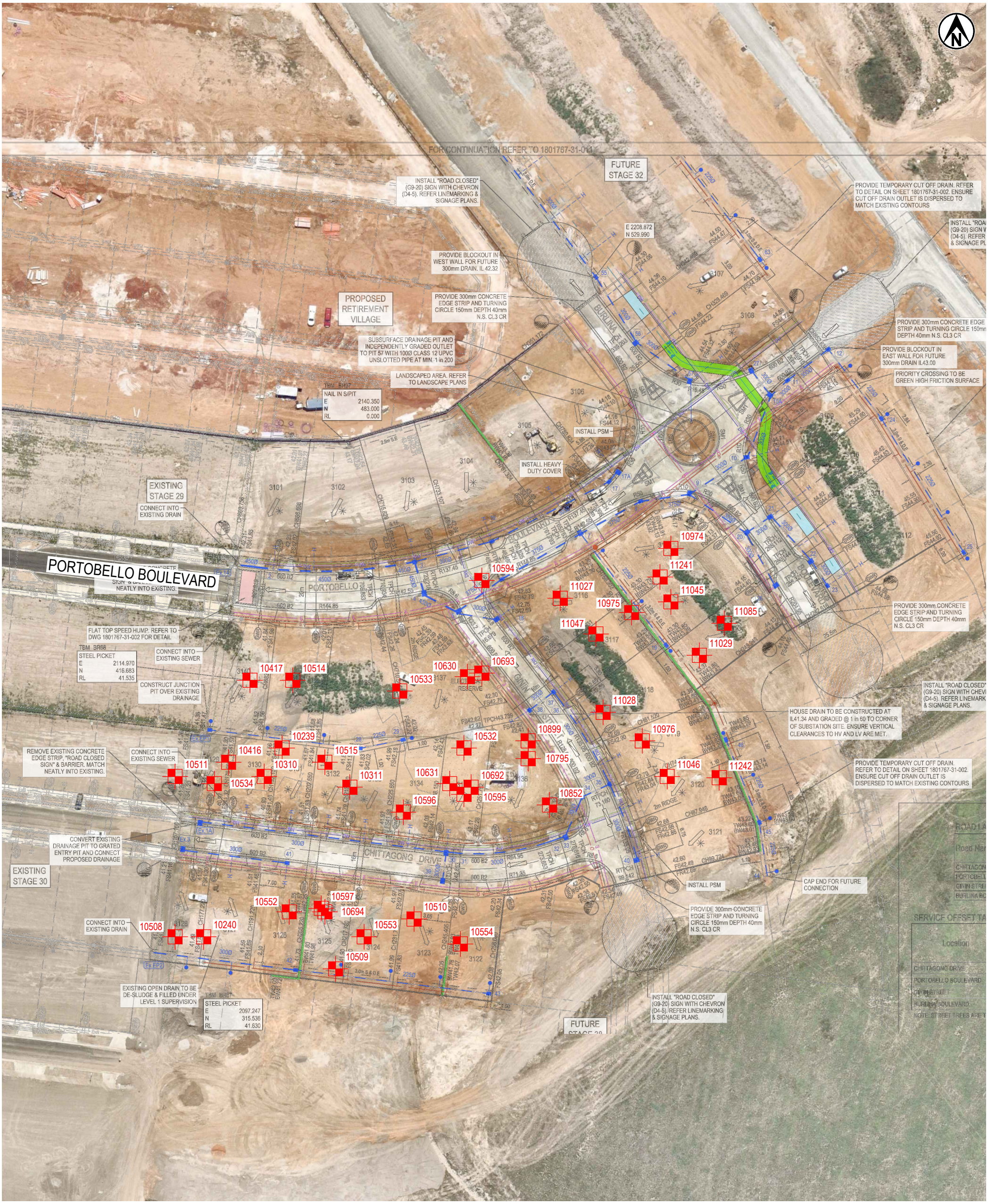
Should you require any further information regarding this report, please do not hesitate to contact the undersigned on (03) 8796 7900.

Chadwick Geotechnics Pty Ltd

Report prepared by:	Authorised for Chadwick Geotechnics Pty Ltd by:
	
.....	.....
Robert Barden Project Manager	Tim Chadwick Project Director

13-Apr-22
\\ttgroup.local\corporate\dandenong\geo projects\3807351\31 stage 31\workingmaterial\3807351.031.r1 level one report.docx

Appendix A: Site plan



LEGEND

6125 HILF DENSITY TEST LOCATION

NOTES:
1. AERIAL IMAGE SOURCED FROM NEARMAP. COPYRIGHT NEARMAP PTY LTD IMAGERY DATE: 04/02/2022.
2. BASE PLAN PROVIDED BY BEVERIDGE WILLIAMS. DRAWING REFERENCE: 1801767 STAGE 31 DWG NO. 010 REV B. DATE RECEIVED: 12/04/2022.

A3 SCALE 1:1000
0 5 10 15 20 30 40 50 (m)
ORIGINAL IN COLOUR

CHADWICK GEOTECHNICS
www.chadwickgeotechnics.com.au

PROJECT No.	3807351.030	
DESIGNED	ACC	Apr.22
DRAWN	KMJA	Apr.22
CHECKED		
APPROVED		DATE

CLIENT GROSVENOR LODGE PTY LTD
PROJECT MERIDIAN ESTATE - STAGE 31
TITLE LEVEL ONE HILF DENSITY TESTING
HILF DENSITY TEST LOCATION PLAN
UNDER REVISION 1
SCALE (A3) 1:1000 FIG No. FIGURE 01 REV 1

Appendix B: Hilf density test summary

CHADWICK GEOTECHNICS

3807351.031 - Meridian Estate Stage 31 - HILF Summary

Chadwick Geotechnics
25 Metcalf St
Dandenong S
Tel : (03) 8796 7900
Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Lot Number	Location [E]	Location [N]	(m) RL	Layer	Density Ratio HILF test (≥95%)	Moisture Variation	Pass / Fail	Remarks
HDR:W21DS02745	10239	16/08/2021	1	3139	355945	5781239	41.12	1	101.5	0.5 wet	Pass	
HDR:W21DS02745	10240	16/08/2021	2	3127	355923	5781186	41.23	1	99.5	2.0 dry	Pass	
HDR:W21DS02762	10310	18/08/2021	1	3130	355940	5781231	41.01		98.5	1.0 dry	Pass	
HDR:W21DS02762	10311	18/08/2021	2	3132	355964	5781228	41.39		97.5	1.0 dry	Pass	
HDR:W21DS02779	10416	19/08/2021	1	3129	355930	5781235	41.21	2	93	2.0 dry	Fail	See Re-Test 10511
HDR:W21DS02779	10417	19/08/2021	2	3140	355936	5781258	45.60	2	98.5	2.0 dry	Pass	
HDR:W21DS02803	10508	20/08/2021	1	3128	355915	5781186	41.24	2	99.5	omc	Pass	
HDR:W21DS02803	10509	20/08/2021	2	3125	355960	5781177	41.40	1	101.5	0.5 wet	Pass	
HDR:W21DS02803	10510	20/08/2021	3	3123	355982	5781191	41.64	1	103.5	0.5 dry	Pass	
HDR:W21DS02803	10511	20/08/2021	4	3129	355915	5781231	41.20	2	99	omc	Pass	Re-Test of 10416
HDR:W21DS02805	10514	21/08/2021	1	3138	355948	5781258	41.72	2	104	0.5 dry	Pass	
HDR:W21DS02805	10515	21/08/2021	2	3139	355957	5781235	41.72	2	104	omc	Pass	
HDR:W21DS02813	10532	23/08/2021	1	3135	355996	5781239	41.83	1	101	3.0 wet	Pass	
HDR:W21DS02813	10533	23/08/2021	2	3137	355978	5781255	41.73	1	98	2.0 wet	Pass	
HDR:W21DS02813	10534	23/08/2021	3	3134	355926	5781229	41.64	1	101.5	omc	Pass	
HDR:W21DS02821	10552	24/08/2021	1	3126	355947	5781193	41.37	2	97.5	0.5 dry	Pass	
HDR:W21DS02821	10553	24/08/2021	2	3124	355968	5781186	41.59	2	98.5	0.5 wet	Pass	
HDR:W21DS02821	10554	24/08/2021	3	3122	355995	5461184	1.98	2	98.5	0.5 wet	Pass	
HDR:W21DS02829	10594	25/08/2021	1	3137	356001	5781286	42.29	2	98	0.5 wet	Pass	
HDR:W21DS02829	10595	25/08/2021	2	3135	355996	5781226	42.01	2	101	omc	Pass	
HDR:W21DS02829	10596	25/08/2021	3	3134	355979	5781221	41.76	2	97	omc	Pass	
HDR:W21DS02829	10597	25/08/2021	4	3125	355956	5781194	41.68	3	100	omc	Pass	
HDR:W21DS02840	10630	26/08/2021	1	3137	355997	5781259	42.39	3	99	1.0 dry	Pass	
HDR:W21DS02840	10631	26/08/2021	2	3135	355992	5781229	42.10	3	98.5	0.5 wet	Pass	
HDR:W21DS02851	10692	27/08/2021	1	3135	355998	5781228	42.22	4	100.5	omc	Pass	
HDR:W21DS02851	10693	27/08/2021	2	3137	356001	5781260	42.45	4	99.5	0.5 wet	Pass	
HDR:W21DS02851	10694	27/08/2021	3	3125	355957	5781193	41.94	4	99.5	omc	Pass	

CHADWICK GEOTECHNICS

3807351.031 - Meridian Estate Stage 31 - HILF Summary

Chadwick Geotechnics
25 Metcalf St
Dandenong S
Tel : (03) 8796 7900
Fax: (03) 8796 7944

Report No	Sample No	Date	Test Number	Lot Number	Location [E]	Location [N]	(m) RL	Layer	Density Ratio HILF test (≥95%)	Moisture Variation	Pass / Fail	Remarks
HDR:W21DS02881	10795	31/08/2021	1	3136	356014	5781236	42.08	1	101	2.5 dry	Pass	
HDR:W21DS02899	10852	1/09/2021	1	3136	356020	5781223	42.19	2	101.5	2.5 dry	Pass	
HDR:W21DS02914	10899	2/09/2021	1	3136	356014	5781241	42.38	3	101.5	3.0 wet	Pass	
HDR:W21DS02934	10974	7/09/2021	1	3115	356054	5781295	43.44	1	100	1.5 dry	Pass	
HDR:W21DS02934	10975	7/09/2021	2	3117	356043	5781277	43.03	1	98.5	0.5 wet	Pass	
HDR:W21DS02934	10976	7/09/2021	3	3119	356046	5781241	42.66	1	100	2.0 dry	Pass	
HDR:W21DS02952	11027	8/09/2021	1	3116	356023	5781281	43.02	2	97	omc	Pass	
HDR:W21DS02952	11028	8/09/2021	2	3118	356035	5781249	42.66	2	103	1.5 dry	Pass	
HDR:W21DS02952	11029	8/09/2021	3	3113	356062	5781265	43.12	2	99.5	1.5 wet	Pass	
HDR:W21DS02958	11045	9/09/2021	1	3114	356054	5781280	43.49	3	98.5	omc	Pass	
HDR:W21DS02958	11046	9/09/2021	2	3120	356053	5781231	42.65	1	100	1.5 dry	Pass	
HDR:W21DS02958	11047	9/09/2021	3	3117	356033	5781271	42.95	3	103.5	1.5 dry	Pass	
HDR:W21DS02971	11085	10/09/2021	1	3113	356069	5781274	43.53	1	100	0.5 dry	Pass	
HDR:W21DS03017	11241	16/09/2021	1	3115	356051	5781287	43.722		99.5	0.5 wet	Pass	
HDR:W21DS03017	11242	16/09/2021	2	3120	356068	5781231	42.848		103.5	0.5 wet	Pass	
												no further test

Appendix C: Hilf density testing reports

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:W21DS02745
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Longfield (Senior Technician)
Date of Issue: 17/08/2021

Sample Details

Location:	Stage 31
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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 Clay
Material:	

Sample Data

Sample ID	S21DS-10239	S21DS-10240				
Field Sample ID	1	2				
Date Tested	16/08/2021	16/08/2021				
Lot	3139	3127				
RL	41.12	41.23				
E	355945	355923				
N	5781239	5781186				
Layer	1	1				
Soil Description	Gravely Clay	Gravely Clay				
Field and Laboratory Data						
Depth of Test (mm)	125	125				
Depth of Layer (mm)	150	150				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.06	2.03				
Peak Converted Wet Density (t/m³)	2.03	2.04				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.5 wet	2.0 dry				
Hilf Density Ratio (%)	**101.5**	**99.5**				

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:W21DS02762
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 3/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
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:	Gravelly Clay

Sample Data

Sample ID	S21DS-10310	S21DS-10311				
Field Sample ID	1	2				
Date Tested	18/08/2021	18/08/2021				
E:	355940	355964				
N:	5781231	5781228				
RL:	41.01	41.39				
Lot:	3130	3132				
Field and Laboratory Data						
Depth of Test (mm)	125	125				
Depth of Layer (mm)	150	150				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	1.99	2.05				
Peak Converted Wet Density (t/m³)	2.02	2.10				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	1.0 dry	0.5 dry				
Hilf Density Ratio (%)	**98.5**	**97.5**				

Comments

CHADWICK GEOTECHNICS

Think Act Safe Be

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:W21DS02779
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 3/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
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:	Gravelly Clay

Sample Data

Sample ID	S21DS-10416	S21DS-10417				
Field Sample ID	1	2				
Date Tested	19/08/2021	19/08/2021				
E:	355930	355936				
N:	5781235	5781258				
RL:	41.21	45.60				
Lot:	3129	3140				
Layer:	2	2				

Field and Laboratory Data

Depth of Test (mm)	125	125				
Depth of Layer (mm)	150	150				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	1.96	2.07				
Peak Converted Wet Density (t/m³)	2.10	2.09				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	2.0 dry	2.0 dry				
Hilf Density Ratio (%)	**93.0**	**98.5**				

Comments

CHADWICK GEOTECHNICS

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

Ph: + 61 3 8796 7900
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Report No: HDR:W21DS02803
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 3/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Gravelly Clay

Sample Data

Sample ID	S21DS-10508	S21DS-10509	S21DS-10510	S21DS-10511		
Field Sample ID	1	2	3	4		
Date Tested	20/08/2021	20/08/2021	20/08/2021	20/08/2021		
E:	355915	355960	355982	355915		
N:	5781186	5781177	5781191	5781231		
RL:	41.24	41.40	41.64	41.20		
Lot / Layer:	3128 / 2	3125 / 1	3123 / 1	3129 / 2		
				Retest of S21DS-10416		
Field and Laboratory Data						
Depth of Test (mm)	125	125	125	125		
Depth of Layer (mm)	150	150	150	150		
AS Sieve Size (mm)	19.0	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0	0		
Field Wet Density (t/m³)	2.08	2.12	2.05	2.06		
Peak Converted Wet Density (t/m³)	2.09	2.09	1.98	2.07		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Variation (%)	0.0	0.5 wet	0.5 dry	0.0		
Hilf Density Ratio (%)	**99.5**	**101.5**	**103.5**	**99.0**		

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:W21DS02805
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 3/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Silty Clay

Sample Data

Sample ID	S21DS-10514	S21DS-10515				
Field Sample ID	1	2				
Date Tested	21/08/2021	21/08/2021				
E:	355948	355957				
N:	5781258	5781235				
RL:	41.72	41.72				
Lot:	3138	3139				
Layer:	2	2				

Field and Laboratory Data

Depth of Test (mm)	125	125				
Depth of Layer (mm)	150	150				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	2.09	2.11				
Peak Converted Wet Density (t/m³)	2.00	2.02				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.5 dry	0.0				
Hilf Density Ratio (%)	**104.0**	**104.0**				

Comments

CHADWICK GEOTECHNICS

Dandenong South
ACN 143 009 330
25 Metcalf Street
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Report No: HDR:W21DS02813
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 3/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Silty Clay

Sample Data

Sample ID	S21DS-10532	S21DS-10533	S21DS-10534			
Field Sample ID	1	2	3			
Date Tested	23/08/2021	23/08/2021	23/08/2021			
E:	2170.67 (355996)	2153.63 (355978)	2156.19 (355926)			
N:	395.52 (5781239)	409.85 (5781255)	386.21 (5781229)			
EL:	41.83	41.73	41.64			
Lot:	3135	3137	3134			
Layer:	1	1	1			
Field and Laboratory Data						
Depth of Test (mm)	125	125	125			
Depth of Layer (mm)	150	150	150			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.10	2.04	2.16			
Peak Converted Wet Density (t/m³)	2.07	2.08	2.13			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	3.0 wet	2.0 wet	0.0			
Hilf Density Ratio (%)	**101.0**	**98.0**	**101.5**			

Comments

CHADWICK GEOTECHNICS

Dandenong South
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25 Metcalf Street
DANDENONG SOUTH, VIC 3175

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Report No: HDR:W21DS02821
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 3/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Silty Clay

Sample Data

Sample ID	S21DS-10552	S21DS-10553	S21DS-10554			
Field Sample ID	1	2	3			
Date Tested	24/08/2021	24/08/2021	24/08/2021			
E:	2123.18 (355947)	2144.26 (355968)	171.10 (355995)			
N:	354.05 (5781193)	346.97 (5781186)	346.55 (5461184)			
EL:	41.37	41.59	1.98			
Lot:	3126	3124	3122			
Layer:	2	2	2			
Field and Laboratory Data						
Depth of Test (mm)	125	125	125			
Depth of Layer (mm)	150	150	150			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.06	2.04	2.06			
Peak Converted Wet Density (t/m³)	2.11	2.07	2.09			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.5 dry	0.5 wet	0.5 wet			
Hilf Density Ratio (%)	**97.5**	**98.5**	**98.5**			

Comments

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Report No: HDR:W21DS02829
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 3/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Silty Clay

Sample Data

Sample ID	S21DS-10594	S21DS-10595	S21DS-10596	S21DS-10597		
Field Sample ID	1	2	3	4		
Date Tested	25/08/2021	25/08/2021	25/08/2021	25/08/2021		
E:	2175.92 (356001)	2168.26 (355996)	2154.10 (355979)	2134.12 (355956)		
N:	416.41 (5781286)	386.27 (5781226)	380.678 (5781221)	351.89 (5781194)		
RL / Layer:	42.29 / 2	42.01 / 2	41.76 / 2	41.68 / 3		
Lot:	3137	3135	3134	3125		
Other:	Sample No: 20	Sample No: 21	Sample No: 22	Sample No: 23		
Field and Laboratory Data						
Depth of Test (mm)	125	125	125	125		
Depth of Layer (mm)	150	150	150	150		
AS Sieve Size (mm)	19.0	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0	0		
Field Wet Density (t/m³)	2.06	2.04	2.01	2.04		
Peak Converted Wet Density (t/m³)	2.10	2.02	2.08	2.04		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Variation (%)	0.5 wet	0.0	0.0	0.0		
Hilf Density Ratio (%)	**98.0**	**101.0**	**97.0**	**100.0**		

Comments

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Report No: HDR:W21DS02840
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 3/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Clay

Sample Data

Sample ID	S21DS-10630	S21DS-10631				
Field Sample ID	1	2				
Date Tested	26/08/2021	26/08/2021				
E:	2174.67 (355997)	2171.28 (355992)				
N:	419.83 (5781259)	389.186 (5781229)				
EL / Layer:	42.39 / 3	42.10 / 3				
Lot:	3137	3135				
Other:	Sample: 24	Sample: 25				

Field and Laboratory Data

Depth of Test (mm)	125	125				
Depth of Layer (mm)	150	150				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Wet Density (t/m³)	1.96	2.02				
Peak Converted Wet Density (t/m³)	1.98	2.05				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	1.0 dry	0.5 wet				
Hilf Density Ratio (%)	**99.0**	**98.5**				

Comments

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Report No: HDR:W21DS02851
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 6/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Sandy Clay

Sample Data

Sample ID	S21DS-10692	S21DS-10693	S21DS-10694			
Field Sample ID	1	2	3			
Date Tested	27/08/2021	27/08/2021	27/08/2021			
E:	2173.58 (355998)	2174.21 (356001)	2132.38 (355957)			
N:	385.25 (5781228)	416.07 (5781260)	354.14 (5781193)			
EL / Layer:	42.22 / 4	42.45 / 4	41.94 / 4			
Lot:	3135	3137	3125			
Other:	Sample: 26	Sample: 27	Sample: 28			

Field and Laboratory Data

Depth of Test (mm)	125	125	125			
Depth of Layer (mm)	150	150	150			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.00	2.03	2.02			
Peak Converted Wet Density (t/m³)	1.98	2.04	2.03			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.0	0.5 wet	0.0			
Hilf Density Ratio (%)	**100.5**	**99.5**	**99.5**			

Comments

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Report No: HDR:W21DS02881
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 6/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Sandy Clay

Sample Data

Sample ID	S21DS-10795					
Field Sample ID	1					
Date Tested	31/08/2021					
E:	2192.59 (356014)					
N:	395.89 (5781236)					
EL / Layer:	42.08 / 1					
Lot:	3136					
Other:	Sample: 29					

Field and Laboratory Data

Depth of Test (mm)	125					
Depth of Layer (mm)	150					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	1.94					
Peak Converted Wet Density (t/m³)	1.91					
Compactive Effort	Standard					
Moisture Variation (%)	2.5 dry					
Hilf Density Ratio (%)	**101.0**					

Comments

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Report No: HDR:W21DS02899
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 6/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Silty Clay

Sample Data

Sample ID	S21DS-10852					
Field Sample ID	1					
Date Tested	1/09/2021					
E:	2193.563 (356020)					
N:	380.286 (5781223)					
EL / Layer:	42.188 / 2					
Lot:	3136					
Other:	Sample: 30					

Field and Laboratory Data

Depth of Test (mm)	125					
Depth of Layer (mm)	150					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	1.98					
Peak Converted Wet Density (t/m³)	1.94					
Compactive Effort	Standard					
Moisture Variation (%)	2.5 dry					
Hilf Density Ratio (%)	**101.5**					

Comments

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Report No: HDR:W21DS02914
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 6/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95% (+- 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:	Silty Clay

Sample Data

Sample ID	S21DS-10899					
Field Sample ID	1					
Date Tested	2/09/2021					
E:	2189.58 (356014)					
N:	399.07 (5781241)					
EL / Layer:	42.38 / 3					
Lot:	3136					

Field and Laboratory Data

Depth of Test (mm)	125					
Depth of Layer (mm)	150					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	2.00					
Peak Converted Wet Density (t/m³)	1.97					
Compactive Effort	Standard					
Moisture Variation (%)	3.0 wet					
Hilf Density Ratio (%)	**101.5**					

Comments

CHADWICK GEOTECHNICS

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Report No: HDR:W21DS02934
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Longfield (Senior Technician)
Date of Issue: 9/09/2021

Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 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: Sandy Clay with Silt

Sample Data

Sample ID	S21DS-10974	S21DS-10975	S21DS-10976			
Field Sample ID	1	2	3			
Date Tested	7/09/2021	7/09/2021	7/09/2021			
E:	2228.692 (356054)	2216.635 (356043)	2220.667 (356046)			
N:	452.921 (5781295)	435.319 (5781277)	400.761 (5781241)			
EL / Layer:	43.444 / 1	43.028 / 1	42.664 / 1			
Lot:	3115	3117	3119			
Sample:	Sample: 32	Sample: 33	Sample: 34			
Field and Laboratory Data						
Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.01	1.99	2.01			
Peak Converted Wet Density (t/m³)	2.02	2.02	2.00			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	1.5 dry	0.5 wet	2.0 dry			
Hilf Density Ratio (%)	**100.0**	**98.5**	**100.0**			

Comments

CHADWICK GEOTECHNICS

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Report No: HDR:W21DS02952
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Longfield (Senior Technician)
Date of Issue: 9/09/2021

Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 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: Sandy Clay

Sample Data

Sample ID	S21DS-11027	S21DS-11028	S21DS-11029			
Field Sample ID	1	2	3			
Date Tested	8/09/2021	8/09/2021	8/09/2021			
E:	2212.21 (356023)	2215.361 (356035)	2236.57 (356062)			
N:	439.59 (5781281)	407.58 (5781249)	421.13 (5781265)			
EL / Layer:	43.02 / 2	42.66 / 2	43.12 / 2			
Lot:	3116	3118	3113			
Other:	Sample: 35	Sample: 36	Sample: 37			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	1.96	2.02	2.00			
Peak Converted Wet Density (t/m³)	2.02	1.97	2.01			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.0	1.5 dry	1.5 wet			
Hilf Density Ratio (%)	**97.0**	**103.0**	**99.5**			

Comments

CHADWICK GEOTECHNICS

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Report No: HDR:W21DS02958
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Longfield (Senior Technician)
Date of Issue: 13/09/2021

Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 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: Silty Sandy Clay

Sample Data

Sample ID	S21DS-11045	S21DS-11046	S21DS-11047			
Field Sample ID	1	2	3			
Date Tested	9/09/2021	9/09/2021	9/09/2021			
E:	2234.33 (356054)	2230.23 (356053)	2210.01 (356033)			
N:	438.93 (5781280)	387.05 (5781231)	429.17 (5781271)			
EL / Layer:	43.49 / 3	42.65 / 1	42.95 / 3			
Lot:	3114	3120	3117			
Other:	Sample: 38	Sample: 39	Sample: 40			

Field and Laboratory Data

Depth of Test (mm)	175	175	175			
Depth of Layer (mm)	200	200	200			
AS Sieve Size (mm)	19.0	19.0	19.0			
Oversize Wet (%)	0	0	0			
Field Wet Density (t/m³)	2.00	2.00	2.02			
Peak Converted Wet Density (t/m³)	2.04	2.00	1.95			
Compactive Effort	Standard	Standard	Standard			
Moisture Variation (%)	0.0	1.5 dry	1.5 dry			
Hilf Density Ratio (%)	**98.5**	**100.0**	**103.5**			

Comments

CHADWICK GEOTECHNICS

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Report No: HDR:W21DS02971
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Longfield (Senior Technician)
Date of Issue: 13/09/2021

Sample Details

Location:
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95% (+- 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: Sandy Clay

Sample Data

Sample ID	S21DS-11085					
Field Sample ID	1					
Date Tested	10/09/2021					
E:	2248.49 (356069)					
N:	432.14 (5781274)					
EL / Layer:	3.53 / 1					
Lot:	3113					
Other:	Sample: 41					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Wet Density (t/m³)	1.98					
Peak Converted Wet Density (t/m³)	1.98					
Compactive Effort	Standard					
Moisture Variation (%)	0.5 dry					
Hilf Density Ratio (%)	**100.0**					

Comments

CHADWICK GEOTECHNICS

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Report No: HDR:W21DS03017
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Meridian Estate - Stage 31
Project No.: 3807351.031
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: M. Robinson (Team Leader)
Date of Issue: 17/09/2021

Sample Details

Location:	Clyde North
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
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:	sandy CLAY

Sample Data

Sample ID	S21DS-11241	S21DS-11242				
Field Sample ID	42	43				
Date Tested	16/09/2021	16/09/2021				
E:	2227.723	2244.316				
N:	447.970	391.637				
Lot:	3115	3120				
Elv:	43.722	42.848				
Field and Laboratory Data						
Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
Field Wet Density (t/m³)	2.01	2.02				
Peak Converted Wet Density (t/m³)	2.02	1.95				
Compactive Effort	Standard	Standard				
Moisture Variation (%)	0.5 wet	0.5 wet				
Hilf Density Ratio (%)	**99.5**	**103.5**				

Comments

Appendix D: Controlled Fill certificate

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT	: Lot No's: 3113 to 3120 & 3123 to 3140 Meridian Central Estate Stage 31	Chadwick Geotechnics REF: 3807351.031.v1	
CLIENT	: Grosvenor Lodge Pty Ltd PO Box 4136 DANDENONG SOUTH VIC 3164	DATE	: 13 April 2022

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 site.

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) to be achieved.

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 (16 August 2021 to the 16 September 2021). 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
Project Manager

Timothy Chadwick
Project Director

CHADWICK
GEOTECHNICS