CHADWICK GEOTECHNICS

REPORT

Level 1 Geotechnical Inspection and Testing Authority Services

Riverfield Square Estate Stage 27
Lots 2701 to 2712 and 2714 to 4741

Prepared for:

Greenridge Properties Pty Ltd

October 2025

Our Ref: 1091938.027.R1.v1

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

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Document Control

Title:	Level One Inspection and testing Services.				
Date	**Version**	**Description**	**Prepared by:**	**Reviewed by:**	**Authorised by**
1 October 2025	V1	Final	RHB	RWMc	RWMc

Distribution

Greenridge Properties Pty Ltd	1 PDF Copy
Chadwick Geotechnics Pty Ltd	1 PDF Copy

1 Introduction

Chadwick Geotechnics Pty Ltd (Chadwick Geotechnics), was engaged by Greenridge Properties Pty Ltd, to provide Level 1 Geotechnical Inspection and Testing Authority (GITA) services for the earthworks conducted within Stage 27 of the Riverfield Square Estate in Clyde North between 11 February 2025 and 10 September 2025.

Level 1 GITA services as defined in AS3798-2007 “Guidelines on Earthworks for Commercial and Residential Development,” requires full time inspection and field and laboratory testing of earthworks in accordance with AS1289 “Methods of Testing Soils for Engineering Purposes.”

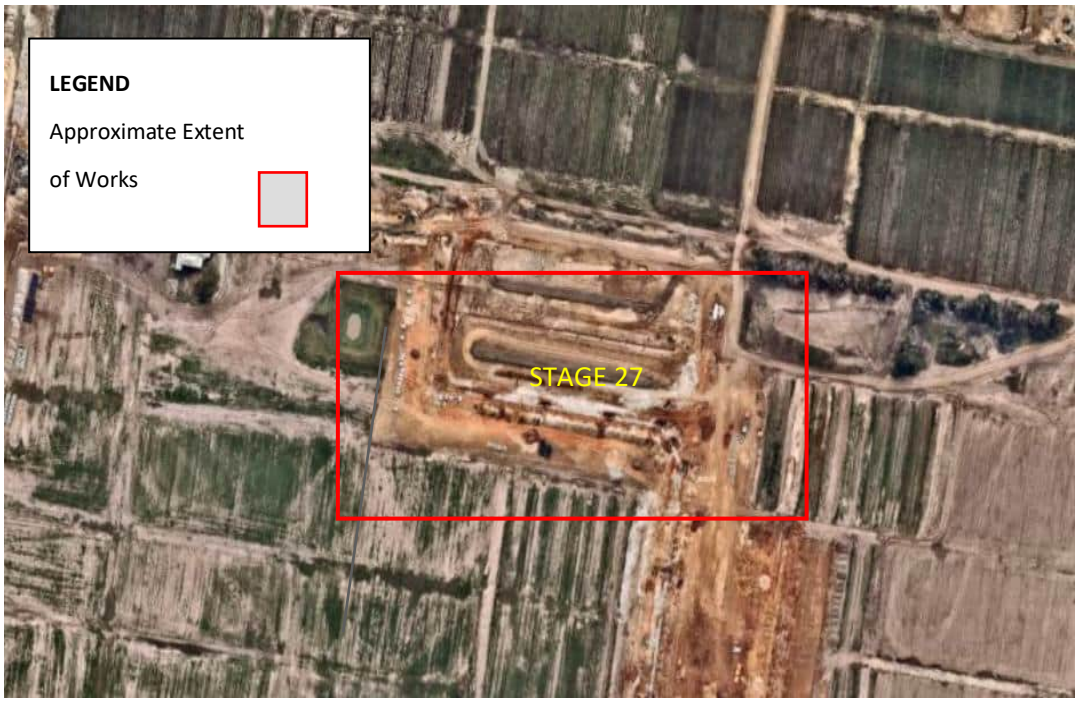
2 Project details

2.1 Location

Stage 27 is located to the East of Tuckers Road and North of Ballarto Road. Stages 24, and 26 surrounds Stage 27.

The included works are shown on the Site Plan in Appendix A and Figure 2.1 below is an extract from Nearmap.

Figure 2.1: Extract from Nearmap



2.2 Roles

The organisations and their roles are presented in Table 2.1

Table 2.1: Roles on the Project

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

Chadwick Geotechnics undertook the field density testing, and the compaction control laboratory testing was conducted in our NATA accredited laboratories.

2.3 Dates on Site

Geotechnical technical and engineering staff from Chadwick Geotechnics were onsite for the duration of the earthworks program on the days shown in Table 2.2 below.

Table 2.2: Level 1 GITA – Onsite Presence

Month	Dates on site
Feb 2025	11, 13, 14, 17
April 2025	11
May 2025	5, 6, 9, 12, 13, 14, 15, 16, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30
June 2025	2, 3,4
August 2025	26
September 2025	10

2.4 Included Areas

This report is applicable to material placed by the contractor on the residential lots within the Riverfield Square Estate Stage 27 site as shown on **Figure 2.1** above and on the Site Plan in **Appendix A,** and with reference to Section 2.5 (Excluded Areas) of this report.

The following Lots were filled (or partially filled) during the Level 1 GITA supervision:

- Lots 2701 to 2712 and 2714 to 2741

2.5 Excluded Areas

This report does not include fill outside the general boundary of the filled areas as shown in Figure 2.1. No fill was placed on the lots not mentioned in Section 2.4 of this report.

Backfill of trenches for the underground services, fill on footpaths, driveways and roads, or placement of topsoil, were not part of the scope for the works supervised by Chadwick Geotechnics.

3 Specifications

The works were to be conducted in general accordance with the 'Guidelines on earthworks for commercial and residential developments' of AS 3798-2007.

The following items were adopted as part of the project earthworks specifications:

- All Filling, in excess, of 200mm depth within the residential lots shall be undertaken to specifications satisfying the requirements of AS 3798-2007 "Guidelines on Earthworks for Commercial and Residential Development".
- 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 prior to placement of an engineered fill.
- Fill to be compacted in near horizontal layers not exceeding 250mm loose thickness.
- Compaction to achieve a ratio of at least 95% Standard Maximum Dry Density (SMDD).
- Moisture content of the fill material is to be within ±3% of the soils Standard Optimum Moisture Content (SOMC).
- Frequency of testing to be in accordance with Table 8.1 of AS3798-2007.

4 Inspection and Testing

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 Table 8.1 (explained in Section 4.5 of this report). Compaction control laboratory testing was performed in a Chadwick Geotechnics NATA accredited laboratory in accordance with AS1289 'Methods of Testing Soils for Engineering Purposes'.

4.1 Earthworks

The earthworks for the project comprised of the following phases:

- Stripping of topsoil from the proposed fill areas.
- Assessment, remediation, and proof rolling of subgrade.
- Geotechnical compliance testing of the soils used for fill.
- Placement and compaction of engineered fill.

4.2 Fill material

Material used for the construction of the fill comprised of local fill material won from the road boxing and trench excavations on this and the surrounding sites.

Samples taken from the site stockpiles comprising local material used for fill were taken for geotechnical compliance testing during the works. The material compliance test results are summarised in **Table 4.1 below.** The laboratory test certificates are attached in **Appendix C.**

Table 4.1: Compliance test Result Summary

Sample #	Particle Size Distribution (PSD)						Liquid Limit %	Plastic Limit %	Plasticity Index %
	37.5 mm	13.2 mm	4.75 mm	1.18 mm	425 µm	0.75 µm			
S25DS-03655/1	100	98	92	87	81	67	35	18	17
S25DS-04331/1	100	99	96	94	91	85	58	17	41

The laboratory test results indicated the fill material is a mixture of Sandy CLAY of medium plasticity to a Silty CLAY of high plasticity and satisfied the requirements of the Specification.

The material was deemed as being derived from natural soils. The soil is considered as 'Suitable Material' in accordance with Section 4.4 of the AS3798-2007.

The material imported and placed at the site by Brown Property Group was assessed by the superintendent as being derived from natural soils and meeting the classification of 'Fill Material' as defined in EPA publication 1828.2-2021 "Waste disposal categories – characteristics and thresholds". Environmental testing of the material was not within Chadwick Geotechnics' scope.

Any observed organic or deleterious matter including any oversize cobbles or boulders were removed from the tested areas during the fill placement.

Photographs of typical materials used during construction are shown below.

Photograph 4.1: Photographs of the material used on site

Photograph 1: Typical clay material used on site

Photograph 2: Silty Clay used

4.3 Subgrade Assessment / Proof Roll

The Subgrade of the site was progressively assessed during the period Chadwick Geotechnics personnel were on site.

Subgrade assessments were conducted following the removal of natural grasses and topsoil that was present on site.

The subgrade inspection was performed in accordance with the Level 1 guidelines presented in AS 3798–2007 Section 5.5. No soft spots or deflections were encountered during the inspections and the area was found to be firm and free of vegetation and other deleterious material.

Two photographs of the subgrade assessment phase at the project are shown below.

Photograph 4.2: Subgrade assessment photographs

Photograph 3: Subgrade assessed with dump truck

Photograph 4: Subgrade assessment using loaded dump truck

4.4 Engineered Fill Construction

All fill material was brought by dump trucks from the local stockpiles, spread with a bulldozer and compacted with a pad foot roller. A water cart was present onsite during the works for moisture conditioning of the materials.

All fill material was placed in lift sequences comprising horizontal layers. Chadwick Geotechnics verified that the surface of the stripped area, and that of additional lifts, was thoroughly scarified and moisture conditioned prior to placement of additional layers to prevent delamination at the layer interface. Once the placed fill was approved, the layer was compacted accordingly. Chadwick Geotechnics personnel were on site on a fulltime basis during the placement, moisture conditioning, compaction, and testing of the fill on the dates noted in Table 2.2 of this report.

The following machinery was on site during earthworks.

Table 4.2: Earthworks plant on site

Equipment type	Model
Dozer	CAT D6
Pad foot roller	BPG 15 T Pad Foot Roller
Water cart	Volvo 25 T
Dump Trucks	Volvo A256
Excavator	CAT 25 T

Photographs of typical machinery on site used during construction are shown below.

Photograph 4.3: General Earthwork machinery and fill construction photographs

Photograph 5: Dozer used during fill construction

Photograph 6: Moxy Truck used during fill construction

Photograph 7: Vibrating compactor used during fill construction

Photograph 8: Water Cart used during fill construction

4.5 Density and Moisture testing

Field density and moisture content testing was undertaken progressively during the construction on the compacted fill 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 a handheld GPS unit. A site plan showing the field density test locations is provided in **Appendix A**.

Testing was undertaken under the frequencies listed below, subject to the area and volume worked on the day of testing:

- 1 test per material type per layer per 2500m² or 1 test per 500m³ distributed reasonably evenly or 3 tests per lot – whichever requires the most tests in accordance with Type 1 Earthworks (large scale operations) as defined in Table 8.1 of the AS 3798-2007;

Sixty (60) tests were performed during the filling process. Seven (7) of the tests did not achieve the required density and or moisture ratio initially. The failed areas were reworked and retested accordingly. The retests returned passing density and moisture test results.

A summary table of HILF density tests is provided in **Appendix B** and the laboratory test reports are provided in **Appendix C**. Two photographs of field density testing conducted on site are shown below.

Photograph 4.4: Field Density/Moisture Testing photographs

Photo 9: Field density/moisture test

Photo 10: Field density/moisture test

5 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 to be determined, that:

- The materials, used by the earth-works contractor met the geotechnical property requirements of the specification.
- The sourced fill was, considered to be natural, 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 requirement of the specification.
- Given the consistent construction practices followed by the earthworks contractor and as witnessed by the 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.
- Based on observations made by Chadwick Geotechnics Level 1 personal and the results of field and laboratory tests, we consider that the engineered fill within the site (noted in Section 2.5), as far as we have been able to reasonably determine, have been placed in general accordance with the intent of the specification.
- It is our opinion that the earthworks undertaken have been performed in accordance with the requirements of Section 8.2 – Level 1 Inspection and Testing - AS3798-2007 Guidelines on Earthworks for Commercial and Residential Developments.
- Chadwick Geotechnics completed its Inspection and testing services on, 10 September 2025. After this date, the maintenance of the fill is the sole responsibility of the Contractor. If the fill is not well maintained or protected with a sacrificial layer of topsoil or other fill, the uppermost layers and the exposed faces of the engineered fill may deteriorate, as a result of exposure to varying weather conditions which can cause cracking or heaving of the fill.
- Any deterioration will need to be remediated prior to further construction on the site. Chadwick Geotechnics has not provided supervision since the above date and is not responsible for any subsequent deterioration that may have occurred or may occur since that date.

6 Applicability

This report has been prepared for the exclusive use of our client Greenridge Properties Pty Ltd in good faith and in accordance with the Chadwick Geotechnics quality system for the earthworks filling at the site.

This report is based on the nature of the project and the prevailing conditions between 11 February 2025 and 10 September 2025. 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:

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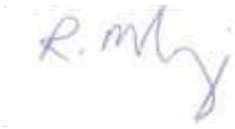
Robert Barden

Project Manager

Authorised for Chadwick Geotechnics Pty Ltd by:



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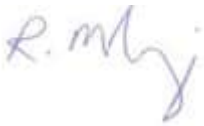
Robert McKenzie

Project Director

Report reviewed by:



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Robert McKenzie

Principal Geotechnical Engineer

PE0005222

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Appendix A Test Location Plan

T:\Dandenong\Geo Projects\1091938\WorkingMaterial\1091938.027 Riverfield Square Stage 27\Site Plans\CAD\FIG\1091938.027-F01.dwg 2025-Oct-01 3:05:24 PM Plotted By: KATHRYN JACKSON

LEGEND

S25DS-04192 HILF DENSITY TEST LOCATION

CHADWICK GEOTECHNICS

www.chadwickgeotechnics.com.au

NOTES:
1. AERIAL IMAGE SOURCED FROM NEARMAP. COPYRIGHT NEARMAP PTY LTD IMAGERY DATE: 04/05/2025.
2. BASE PLAN PROVIDED BY GREENRIDGE PROPERTIES PTY LTD DRAWING REFERENCE: 2101578-27-Base_dated20250110.dwg, DATE RECEIVED: 20/05/2025.

A3 SCALE 1:1000

0 5 10 15 20 30 40 50 (m)

ORIGINAL IN COLOUR

PROJECT No.	1091938.027	
DESIGNED	STPA	Sep.25
DRAWN	KMJA	Sep.25
CHECKED	RHB	Sep. 25
APPROVED	ROBERT BARDEN	DATE 19/09/25

CLIENT **GREENRIDGE PROPERTIES PTY LTD**

PROJECT **RIVERFIELD SQUARE ESTATE - STAGE 27**

TITLE LEVEL ONE HILF DENSITY TESTING
HILF DENSITY TEST LOCATION PLAN

SCALE (A3) 1:1000 FIG No. 1091938.027-F01 REV 1

Appendix B Hilf Density Test Summary

CHADWICK GEOTECHNICS

Riverfield Square Estate, 1091938.027 Stage 27

HILF Density Testing - Field Summary

Chadwick Geotechnics
25 Metcalf Street
Dandenong South VIC 3175
Tel : (03) 8796 7900
Fax: (03) 9706 9431

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Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W25DS00185	S25DS-00563	11/02/2025	1	2717 / -	355429	5778308	17.64	98	3 dry	Pass	
HDR:W25DS00217	S25DS-00628	13/02/2025	1	2717 / -	355441	5778303	18.171	102.5	3 dry	Pass	
HDR:W25DS00244	S25DS-00719	17/02/2025	1	2720 / 1	355439	5778252	19.95	104	2.5 dry	Pass	
HDR:W25DS00244	S25DS-00720	17/02/2025	2	2719 / 1	355445	5778276	19.589	101	2.5 dry	Pass	
HDR:W25DS00742	S25DS-02793	11/04/2025	1	2704 / 4	355246	5778333	18.952	101	0.5 wet	Pass	
HDR:W25DS00911	S25DS-03374	6/05/2025	1	2706 / 5	355273	5778329	18.667	101.5	2.0 Dry	Pass	
HDR:W25DS00911	S25DS-03375	6/05/2025	2	2716 / 2	355399	5778313	17.832	99	2 wet	Pass	
HDR:W25DS00944	S25DS-03527	9/05/2025	1	2729 / 1	355295	5778290	18.187	101.5	1.5 dry	Pass	
HDR:W25DS00944	S25DS-03528	9/05/2025	2	2711 / 1	355335	5778311	17.956	98.5	3 dry	Pass	
HDR:W25DS00970	S25DS-03639	13/05/2025	1	2730 / 2	355278	5778280	18.593	99	0 wet	Pass	
HDR:W25DS00970	S25DS-03640	13/05/2025	2	2709	355309	5778311	18.593	101	0.5 dry	Pass	
HDR:W25DS00970	S25DS-03641	13/05/2025	3	2707 / 2	355283	5778317	18.528	100	0.5 wet	Pass	
HDR:W25DS00980	S25DS-03700	14/05/2025	1	2714 / 4	355375	5778307	18.799	99	2 dry	Pass	
HDR:W25DS00980	S25DS-03701	14/05/2025	2	2712 / 3	355349	5778312	18.503	99	0.5 dry	Pass	
HDR:W25DS00980	S25DS-03702	14/05/2025	3	2731 / 3	355268	5778284	18.876	97	1.5 wet	Pass	
HDR:W25DS00980	S25DS-03703	14/05/2025	4	2708 / 3	355294	5778318	18.809	101.5	0.5 dry	Pass	
HDR:W25DS01004	S25DS-03778	15/05/2025	1	2704 / 3	355247	5778327	19.011	98	1.5 wet	Pass	
HDR:W25DS01004	S25DS-03779	15/05/2025	2	2710 / 4	355324	5778316	18.92	97	0 wet	Pass	
HDR:W25DS01004	S25DS-03780	15/05/2025	3	2715 / 5	355390	5778302	18.7	102	2.5 dry	Pass	
HDR:W25DS01011	S25DS-03805	16/05/2025	1	2705 / 4	355258	5778324	19.263	100.5	0 wet	Pass	
HDR:W25DS01011	S25DS-03806	16/05/2025	2	2702 / 4	355211	5778324	19.099	97.5	1 wet	Pass	
HDR:W25DS01011	S25DS-03807	16/05/2025	3	2732 / 4	355253	5778281	19.258	98	2 dry	Pass	

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Riverfield Square Estate, 1091938.027 Stage 27

HILF Density Testing - Field Summary

Chadwick Geotechnics
25 Metcalf Street
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Fax: (03) 9706 9431

Think Act Be Safe

Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W25DS01019	S25DS-03838	19/05/2025	1	2710 / 5	355323	5778323	19.134	99	0 wet	Pass	
HDR:W25DS01019	S25DS-03839	19/05/2025	2	2707 / 5	355283	5778329	19.394	97.5	0.5 wet	Pass	
HDR:W25DS01019	S25DS-03840	19/05/2025	3	2729 / 5	355291	5778271	19.44	98	2.5 wet	Pass	
HDR:W25DS01028	S25DS-03865	20/05/2025	1	2733 / 5	355235	5778285	19.5	102.5	0 wet	Pass	
HDR:W25DS01028	S25DS-03866	20/05/2025	2	2703 / 5	355232	5778336	19.536	103.5	2.5 dry	Pass	
HDR:W25DS01040	S25DS-03899	21/05/2025	1	2709 / 6	355305	5778323	19.529	101.5	1 dry	Pass	
HDR:W25DS01040	S25DS-03900	21/05/2025	2	2708 / 6	355254	5778331	19.752	101.5	2.5 dry	Pass	
HDR:W25DS01040	S25DS-03901	21/05/2025	2	2701 / 6	355210	5778338	19.468	97	0.5 wet	Pass	
HDR:W25DS01059	S25DS-03989	22/05/2025	1	2731 / 6	355264	5778274	19.76	97	0.5 wet	Pass	
HDR:W25DS01059	S25DS-03990	22/05/2025	2	2737 / 1	355166	5778292	20.268	92	2 dry	Fail	See Retest S25DS-04096
HDR:W25DS01059	S25DS-03991	22/05/2025	3	2735 / 6	355214	5778286	19.809	96.5	0 wet	Pass	
HDR:W25DS01076	S25DS-04095	23/05/2025	1	2740 / 1	355167	5778332	19.634	97.5	0 wet	Pass	
HDR:W25DS01076	S25DS-04096	23/05/2025	2	2737 / 1	355164	5778287	20.355	96	3 wet	Pass	Retest of S25DS-03990
HDR:W25DS01076	S25DS-04097	23/05/2025	3	2730 / 7	355279	5778284	19.954	96	0.5 wet	Pass	
HDR:W25DS01095	S25DS-04189	26/05/2025	1	2734 / 6	355225	5778275	20.106	98	0.5 wet	Pass	
HDR:W25DS01095	S25DS-04190	26/05/2025	2	2738 / 2	355165	5778306	20.271	98.5	2 wet	Pass	
HDR:W25DS01095	S25DS-04191	26/05/2025	3	2741 / 2	355170	5778342	19.776	99.5	0.5 wet	Pass	
HDR:W25DS01095	S25DS-04192	26/05/2025	4	2732 / 7	355252	5778289	20.21	97.5	0.5 dry	Pass	
HDR:W25DS01095	S25DS-04193	26/05/2025	5	2736 / 7	355198	5778295	20.151	99.5	2.5 wet	Pass	
HDR:W25DS01099	S25DS-04209	27/05/2025	1	2739 / 4	355163	5778321	20.435	98.5	0 wet	Pass	
HDR:W25DS01099	S25DS-04210	27/05/2025	2	2726 / 1	355334	5778274	18.578	98	0.5 wet	Pass	
HDR:W25DS01115	S25DS-04256	28/05/2025	1	2726 / 2	355328	5778270	19.106	102.5	2.5 dry	Pass	

CHADWICK GEOTECHNICS

Riverfield Square Estate, 1091938.027 Stage 27

HILF Density Testing - Field Summary

Chadwick Geotechnics
25 Metcalf Street
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Tel : (03) 8796 7900
Fax: (03) 9706 9431

Think Act Be Safe

Report No	Sample No	Date	Test Number	Lot No	Easting	Northing	Layer/RL	Density Ratio (≥95 %)	Moisture Variation	Pass / Fail	Comments (Retest No) Compliance test taken ect
HDR:W25DS01135	S25DS-04371	29/05/2025	1	2627 / 3	355317	5778264	19.368	103	0.5 dry	Pass	
HDR:W25DS01135	S25DS-04372	29/05/2025	2	2728 / 4	355307	5778270	19.651	99	0.5 dry	Pass	
HDR:W25DS01135	S25DS-04373	29/05/2025	3	2724 4	355358	5778274	19.356	95	0 dry	Pass	
HDR:W25DS01140	S25DS-04387	30/05/2025	1	2725 / 5	355343	5778268	19.763	97	2.5 dry	Pass	
HDR:W25DS01140	S25DS-04388	30/05/2025	2	2723 / 5	355371	5778267	19.559	92.5	2.5 dry	Fail	See Retest S25DS-07970
HDR:W25DS01154	S25DS-04461	3/06/2025	1	2721 / FSL	355393	5778268	19.739	86	4.5 dry	Fail	See Retest S25DS-07972
HDR:W25DS01154	S25DS-04462	3/06/2025	2	2722 / FSL	355378	5778265	19.838	91.5	2.5 dry	Fail	See Retest S25DS-07971
HDR:W25DS01154	S25DS-04463	3/06/2025	3	Future Stage, West End / 200mm	355232	5778269	20.743	97	2 dry	Pass	
HDR:W25DS01154	S25DS-04464	3/06/2025	4	Future Stage, Middle / 200mm	355300	5778263	20.635	96	4 dry	Fail	See Retest S25DS-07968
HDR:W25DS01168	S25DS-04523	4/06/2025	1	Retaining Wall / 1	355368	5778258	20.401	110	2 dry	Fail	See Retest S25DS-07969
HDR:W25DS02029	S25DS-07968	26/08/2025	1	Future Stage, Middle / 200mm	355300	5778263		105.5	0 dry	Pass	Retest of S25DS-04464
HDR:W25DS02029	S25DS-07969	26/08/2025	2	Retaining Wall / 1	355367	5778255		103	2 dry	Pass	Retest of S25DS-04523
HDR:W25DS02029	S25DS-07970	26/08/2025	3	2723 / 5	355374	5778265		101.5	2.5 dry	Pass	Retest of S25DS-04388
HDR:W25DS02029	S25DS-07971	26/08/2025	4	2722 / FSL	355378	5778265		97.5	1.5 dry	Pass	Retest of S25DS-04462
HDR:W25DS02029	S25DS-07972	26/08/2025	5	2721 / FSL	355397	5778266		114	6.0 Dry	Fail	MDD Test, Retest of S25DS-04461, See Retest S25DS- 08478
HDR:W25DS02174	S25DS-08478	10/09/2025	1	2721 / FSL	355397	5778266		100.5	0.5 Dry	Pass	Retest of S25DS-07972

Appendix C NATA endorsed 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:W25DS00185
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 12/08/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-00563		
Field Sample ID	1		
Date Tested	11/02/2025		
Time Tested	12:40		
E:	355429		
N:	5778308		
EL:	17.640		
Lot / Layer:	2717 / -		

Field and Laboratory Data

Depth of Test (mm)	175		
Depth of Layer (mm)	200		
AS Sieve Size (mm)	19.0		
Oversize Wet (%)	0		
Field Moisture Content (%)	21.0		
Field Moisture Content Method	AS 1289.2.1.1		
Field Wet Density (t/m³)	1.87		
Field Dry Density (t/m³)	1.54		
Peak Converted Wet Density (t/m³)	1.91		
Optimum Moisture Content (%)	24.0		
Compactive Effort	Standard		
Moisture Ratio (%)	87.5		
Moisture Variation (%)	3.0 dry		
Hilf Density Ratio (%)	**98.0**		

Comments

Results relate only to the items tested/sampled.

Dandenong South
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25 Metcalf Street
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Report No: HDR:W25DS00217
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 1/03/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-00628		
Field Sample ID	1		
Date Tested	13/02/2025		
Time Tested	15:00		
E:	355441		
N:	5778303		
EL:	18.171		
Lot / Layer:	2717 / -		

Field and Laboratory Data

Depth of Test (mm)	175		
Depth of Layer (mm)	200		
AS Sieve Size (mm)	19.0		
Oversize Wet (%)	0		
Field Moisture Content (%)	9.9		
Field Moisture Content Method	AS 1289.2.1.1		
Field Wet Density (t/m³)	2.06		
Field Dry Density (t/m³)	1.87		
Peak Converted Wet Density (t/m³)	2.01		
Optimum Moisture Content (%)	13.0		
Compactive Effort	Standard		
Moisture Ratio (%)	76.0		
Moisture Variation (%)	3.0 dry		
Hilf Density Ratio (%)	**102.5**		

Comments

CHADWICK GEOTECHNICS

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ACN 143 009 330
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Report No: HDR:W25DS00244
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 1/03/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-00719	S25DS-00720	
Field Sample ID	1	2	
Date Tested	17/02/2025	17/02/2025	
Time Tested	12:35	12:50	
E:	355439	355445	
N:	5778252	5778276	
EL:	19.950	19.589	
Lot / Layer:	2720 / 1	2719 / 1	

Field and Laboratory Data

Depth of Test (mm)	175	175	
Depth of Layer (mm)	200	200	
AS Sieve Size (mm)	19.0	19.0	
Oversize Wet (%)	0	0	
Field Moisture Content (%)	18.8	18.1	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.98	1.89	
Field Dry Density (t/m³)	1.66	1.60	
Peak Converted Wet Density (t/m³)	1.90	1.87	
Optimum Moisture Content (%)	21.0	20.5	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	89.0	88.5	
Moisture Variation (%)	2.5 dry	2.5 dry	
Hilf Density Ratio (%)	**104.0**	**101.0**	

Comments

Dandenong South
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Report No: HDR:W25DS00742
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 28/04/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-02793		
Field Sample ID	1		
Date Tested	11/04/2025		
Time Tested	10:00		
E:	355246		
N:	5778333		
EL:	18.952		
Lot / Layer:	2704 / 4		

Field and Laboratory Data

Depth of Test (mm)	175		
Depth of Layer (mm)	200		
AS Sieve Size (mm)	19.0		
Oversize Wet (%)	0		
Field Moisture Content (%)	22.7		
Field Moisture Content Method	AS 1289.2.1.1		
Field Wet Density (t/m³)	2.01		
Field Dry Density (t/m³)	1.64		
Peak Converted Wet Density (t/m³)	1.99		
Optimum Moisture Content (%)	22.0		
Compactive Effort	Standard		
Moisture Ratio (%)	103.0		
Moisture Variation (%)	0.5 wet		
Hilf Density Ratio (%)	**101.0**		

Comments

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS00911
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 12/08/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Import
Material:	Clay

Sample Data

Sample ID	S25DS-03374	S25DS-03375				
Field Sample ID	1	2				
Date Tested	6/05/2025	6/05/2025				
Time Tested	12:00	13:15				
E:	355273	355399				
N:	5778329	5778313				
EL:	18.667	17.832				
Lot / Layer:	2706 / 5	2716 / 2				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	16.1	17.5				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m³)	2.24	2.06				
Field Dry Density (t/m³)	1.93	1.76				
Peak Converted Wet Density (t/m³)	2.21	2.08				
Optimum Moisture Content (%)	18.0	15.5				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	88.5	114.5				
Moisture Variation (%)	2.0 dry	2.0 wet				
Hilf Density Ratio (%)	**101.5**	**99.0**				

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS00944
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 14/05/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03527	S25DS-03528				
Field Sample ID	1	2				
Date Tested	9/05/2025	9/05/2025				
Time Tested	12:00	15:30				
E:	355295 (5293.369)	355335 (5333.519)				
N:	5778290 (78283.296)	5778311 (78306.039)				
EL:	18.187	17.956				
Lot / Layer:	2729 / 1	2711 / 1				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	19.0	22.6				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m³)	1.96	1.80				
Field Dry Density (t/m³)	1.65	1.47				
Peak Converted Wet Density (t/m³)	1.93	1.83				
Optimum Moisture Content (%)	20.5	25.5				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	92.0	88.5				
Moisture Variation (%)	1.5 dry	3.0 dry				
Hilf Density Ratio (%)	**101.5**	**98.5**				

Comments

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS00970
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 26/05/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03639	S25DS-03640	S25DS-03641
Field Sample ID	1	2	3
Date Tested	13/05/2025	13/05/2025	13/05/2025
Time Tested	11:20	12:20	15:00
E:	355278 (5277.497)	355309 (5308.752)	355283 (5281.197)
N:	5778280 (78275.381)	5778311 (78275.381)	5778317 (78314.094)
EL:	18.593	18.593	18.528
Lot / Layer:	2730 / 2	2730 / 2	2707 / 2

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 Moisture Content (%)	16.6	20.9	21.2
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.04	1.98	1.95
Field Dry Density (t/m³)	1.75	1.64	1.61
Peak Converted Wet Density (t/m³)	2.06	1.97	1.94
Optimum Moisture Content (%)	16.5	21.5	20.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	101.0	98.5	103.5
Moisture Variation (%)	0.0	0.5 dry	0.5 wet
Hilf Density Ratio (%)	**99.0**	**101.0**	**100.0**

Comments

Results relate only to the items tested/sampled.

Dandenong South
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Report No: HDR:W25DS00980
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 12/08/2025

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-03700	S25DS-03701	S25DS-03702	S25DS-03703
Field Sample ID	1	2	3	4
Date Tested	14/05/2025	14/05/2025	14/05/2025	14/05/2025
Time Tested	09:50	14:30	14:45	15:40
E:	355375 (5375.568)	355349 (5346.275)	355268 (5264.731)	355294 (5293.395)
N:	5778307 (78300.485)	5778312 (78306.243)	5778284 (78279.037)	5778318 (78312.892)
EL:	18.799	18.503	18.876	18.809
Lot / Layer:	2714 / 4	2712 / 3	2731 / 3	2708 / 3

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175
Depth of Layer (mm)	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0
Field Moisture Content (%)	18.8	18.5	24.4	17.7
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.94	2.01	1.94	2.08
Field Dry Density (t/m³)	1.63	1.70	1.56	1.76
Peak Converted Wet Density (t/m³)	1.95	2.03	2.00	2.05
Optimum Moisture Content (%)	21.0	19.0	22.5	18.0
Compactive Effort	Standard	Standard	Standard	Standard
Moisture Ratio (%)	89.5	98.5	107.5	98.0
Moisture Variation (%)	2.0 dry	0.5 dry	1.5 wet	0.5 dry
Hilf Density Ratio (%)	**99.0**	**99.0**	**97.0**	**101.5**

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS01004
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 26/05/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03778	S25DS-03779	S25DS-03780
Field Sample ID	1	2	3
Date Tested	15/05/2025	15/05/2025	15/05/2025
Time Tested	11:20	15:30	15:45
E:	355247 (5243.092)	355324 (5320.774)	355390 (5388.711)
N:	5778327 (78320.648)	5778316 (78310.062)	5778302 (78208.559)
EL:	19.011	18.920	18.700
Lot / Layer:	2704 / 3	2710 / 4	2715 / 5

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 Moisture Content (%)	18.1	21.2	16.7
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.02	1.98	2.00
Field Dry Density (t/m³)	1.71	1.63	1.72
Peak Converted Wet Density (t/m³)	2.06	2.04	1.97
Optimum Moisture Content (%)	16.5	21.0	19.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	110.5	100.5	87.0
Moisture Variation (%)	1.5 wet	0.0	2.5 dry
Hilf Density Ratio (%)	**98.0**	**97.0**	**102.0**

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

Dandenong South
ACN 143 009 330
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Report No: HDR:W25DS01011
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 26/05/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03805	S25DS-03806	S25DS-03807
Field Sample ID	1	2	3
Date Tested	16/05/2025	16/05/2025	16/05/2025
Time Tested	14:30	14:45	15:06
E:	355258 (5264.354)	355211 (5210.250)	355253 (5244.766)
N:	5778324 (78319.207)	5778324 (78320.464)	5778281 (58277.106)
EL:	19.263	19.099	19.258
Lot / Layer:	2705 / 4	2702 / 4	2732 / 4

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 Moisture Content (%)	19.9	20.8	16.6
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.03	1.95	1.95
Field Dry Density (t/m³)	1.69	1.62	1.67
Peak Converted Wet Density (t/m³)	2.02	2.00	1.99
Optimum Moisture Content (%)	20.0	20.0	18.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	100.5	104.0	90.0
Moisture Variation (%)	0.0	1.0 wet	2.0 dry
Hilf Density Ratio (%)	**100.5**	**97.5**	**98.0**

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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ACN 143 009 330
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Report No: HDR:W25DS01019
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 27/05/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03838	S25DS-03839	S25DS-03840
Field Sample ID	1	2	3
Date Tested	19/05/2025	19/05/2025	19/05/2025
Time Tested	15:00	15:15	15:30
E:	355323 (5320.626)	355283 (5280.619)	355291 (5287.568)
N:	5778323 (78320.281)	5778329 (78323.556)	5778271 (78265.979)
EL:	19.134	19.394	19.443
Lot / Layer:	2710 / 5	2707 / 5	2729 / 5

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 Moisture Content (%)	22.6	19.0	22.8
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.97	2.02	1.98
Field Dry Density (t/m³)	1.61	1.69	1.61
Peak Converted Wet Density (t/m³)	1.98	2.07	2.02
Optimum Moisture Content (%)	22.5	18.5	20.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	101.0	102.5	112.0
Moisture Variation (%)	0.0	0.5 wet	2.5 wet
Hilf Density Ratio (%)	**99.0**	**97.5**	**98.0**

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

Dandenong South
ACN 143 009 330
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Report No: HDR:W25DS01028
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 12/08/2025

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-03865	S25DS-03866	
Field Sample ID	1	2	
Date Tested	20/05/2025	20/05/2025	
Time Tested	15:30	15:50	
E:	355235 (5235.597)	355232 (5328.912)	
N:	5778285 (78280.786)	5778336 (78328.409)	
EL:	19.500	19.536	
Lot / Layer:	2733 / 5	2703 / 5	

Field and Laboratory Data

Depth of Test (mm)	175	175	
Depth of Layer (mm)	200	200	
AS Sieve Size (mm)	19.0	19.0	
Oversize Wet (%)	0	0	
Field Moisture Content (%)	24.0	22.3	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	2.02	1.93	
Field Dry Density (t/m³)	1.63	1.58	
Peak Converted Wet Density (t/m³)	1.97	1.87	
Optimum Moisture Content (%)	24.0	25.0	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	101.0	89.0	
Moisture Variation (%)	0.0	2.5 dry	
Hilf Density Ratio (%)	**102.5**	**103.5**	

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

Dandenong South
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Report No: HDR:W25DS01040
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 27/05/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 98%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-03899	S25DS-03900	S25DS-03901
Field Sample ID	1	2	3
Date Tested	21/05/2025	21/05/2025	21/05/2025
Time Tested	15:30	15:45	16:00
E:	355305 (5309.293)	355254 (5254.849)	355210 (5209.303)
N:	5778323 (78319.161)	5778331 (78326.511)	5778338 (78333.882)
EL:	19.529	19.752	19.468
Lot / Layer:	2709 / 6	2708 / 6	2701 / 6

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 Moisture Content (%)	17.9	15.9	19.2
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	2.01	2.00	1.94
Field Dry Density (t/m³)	1.71	1.73	1.63
Peak Converted Wet Density (t/m³)	1.98	1.97	2.00
Optimum Moisture Content (%)	18.5	18.5	19.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	95.5	87.0	102.0
Moisture Variation (%)	1.0 dry	2.5 dry	0.5 wet
Hilf Density Ratio (%)	**101.5**	**101.5**	**97.0**

Comments

Results relate only to the items tested/sampled.

Dandenong South
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Report No: HDR:W25DS01059
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 12/08/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported / Onsite
Material:	Sandy Clay

Sample Data

Sample ID	S25DS-03989	S25DS-03990	S25DS-03991
Field Sample ID	1	2	3
Date Tested	22/05/2025	22/05/2025	22/05/2025
Time Tested	10:15	11:40	
E:	355265 (-)	355166 (-)	355214 (-)
N:	5778274 (-)	5778292 (-)	5778286 (-)
EL:	19.76	20.268	19.809
Lot / Layer:	2731 / 6	2737 / 1	2735 / 6
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 Moisture Content (%)	18.8	11.2	21.1
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.96	1.93	1.90
Field Dry Density (t/m³)	1.65	1.74	1.57
Peak Converted Wet Density (t/m³)	2.02	2.10	1.97
Optimum Moisture Content (%)	18.5	13.5	21.0
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	102.0	84.0	100.0
Moisture Variation (%)	0.5 wet	2.0 dry	0.0
Hilf Density Ratio (%)	**97.0**	**92.0**	**96.5**

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS01076
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 3/06/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported / Onsite
Material:	Sandy Gravelly Clay

Sample Data

Sample ID	S25DS-04095	S25DS-04096	S25DS-04097
Field Sample ID	1	2	3
Date Tested	23/05/2025	23/05/2025	23/05/2025
Time Tested	09:40	14:13	14:26
E:	355167	355164	355279
N:	5778332	5778287	5778284
EL:	19.634	20.355	19.954
Lot / Layer:	2740 / 1	2737 / 1	2730 / 7
		Retest of S25DS-03990	

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 Moisture Content (%)	21.4	16.2	18.3
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.97	1.95	2.01
Field Dry Density (t/m³)	1.62	1.68	1.70
Peak Converted Wet Density (t/m³)	2.02	2.02	2.10
Optimum Moisture Content (%)	21.5	13.5	17.5
Compactive Effort	Standard	Standard	Standard
Moisture Ratio (%)	100.5	120.5	103.5
Moisture Variation (%)	0.0	3.0 wet	0.5 wet
Hilf Density Ratio (%)	**97.5**	**96.0**	**96.0**

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS01095
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 12/08/2025

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Imported
Material: Clay

Sample Data

Sample ID	S25DS-04189	S25DS-04190	S25DS-04191	S25DS-04192	S25DS-04193
Field Sample ID	1	2	3	4	5
Date Tested	26/05/2025	26/05/2025	26/05/2025	26/05/2025	26/05/2025
Time Tested	08:50	12:00	12:15	15:20	15:40
E:	355225 (5226.276)	355165 (5163.810)	355170 (5168.954)	355252 (5251.996)	355198 (5198.350)
N:	5778275 (78274.858)	5778306 (78302.262)	5778342 (78344.107)	5778289 (78284.308)	5778295 (78289.615)
EL:	20.106	20.271	19.776	20.21	20.151
Lot / Layer:	2734 / 6	2738 / 2	2741 / 2	2732 / 7	2736 / 7
Field and Laboratory Data					
Depth of Test (mm)	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0
Field Moisture Content (%)	22.5	24.1	22.1	22.3	21.2
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m³)	1.95	1.95	1.96	1.90	1.99
Field Dry Density (t/m³)	1.59	1.57	1.61	1.56	1.64
Peak Converted Wet Density (t/m³)	1.99	1.98	1.97	1.96	2.00
Optimum Moisture Content (%)	22.0	22.0	21.5	22.5	18.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	101.5	110.0	103.5	98.5	114.5
Moisture Variation (%)	0.5 wet	2.0 wet	0.5 wet	0.5 dry	2.5 wet
Hilf Density Ratio (%)	**98.0**	**98.5**	**99.5**	**97.5**	**99.5**

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS01099
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: Krushik Patel (Senior Geotechnician)
Date of Issue: 3/06/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-04209	S25DS-04210	
Field Sample ID	1	2	
Date Tested	27/05/2025	27/05/2025	
Time Tested	09:30	11:00	
E:	355163 (5163.587)	355334 (5332.165)	
N:	5778321 (78316.684)	5778274 (78274.637)	
EL:	20.435	18.578	
Lot / Layer:	2739 / 4	2726 / 1	

Field and Laboratory Data

Depth of Test (mm)	175	175	
Depth of Layer (mm)	200	200	
AS Sieve Size (mm)	19.0	19.0	
Oversize Wet (%)	0	0	
Field Moisture Content (%)	26.2	28.0	
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	
Field Wet Density (t/m³)	1.94	1.95	
Field Dry Density (t/m³)	1.54	1.52	
Peak Converted Wet Density (t/m³)	1.97	1.98	
Optimum Moisture Content (%)	26.0	27.5	
Compactive Effort	Standard	Standard	
Moisture Ratio (%)	100.5	101.0	
Moisture Variation (%)	0.0	0.5 wet	
Hilf Density Ratio (%)	**98.5**	**98.0**	

Comments

Results relate only to the items tested/sampled.

Dandenong South
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Report No: HDR:W25DS01115
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 6/06/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Onsite
Material:	Clay

Sample Data

Sample ID	S25DS-04256					
Field Sample ID	1					
Date Tested	28/05/2025					
Time Tested	12:00					
E:	355328 (5325.348)					
N:	5778270 (78269.008)					
EL:	19.106					
Lot / Layer:	2726 / 2					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	19.1					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.01					
Field Dry Density (t/m³)	1.69					
Peak Converted Wet Density (t/m³)	1.96					
Optimum Moisture Content (%)	21.5					
Compactive Effort	Standard					
Moisture Ratio (%)	88.0					
Moisture Variation (%)	2.5 dry					
Hilf Density Ratio (%)	**102.5**					

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS01135
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 2/06/2025

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Site Won
Material: CLAY

Sample Data

Sample ID	S25DS-04371	S25DS-04372	S25DS-04373			
Field Sample ID	1	2	3			
Date Tested	29/05/2025	29/05/2025	29/05/2025			
Time Tested	09:30	14:45	15:30			
E:	355317 (5316.703)	355307 (5304.722)	355358 (5356.795)			
N:	5778264 (78262.643)	5778270 (78267.183)	5778274 (78269.150)			
EL:	19.368	19.651	19.356			
Lot / Layer:	2627 / 3	2728 / 4	2724 4			

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 Moisture Content (%)	14.9	18.5	17.5			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m³)	2.06	1.98	1.94			
Field Dry Density (t/m³)	1.79	1.67	1.65			
Peak Converted Wet Density (t/m³)	2.00	2.00	2.04			
Optimum Moisture Content (%)	15.5	19.0	18.0			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	96.0	96.0	98.5			
Moisture Variation (%)	0.5 dry	0.5 dry	0.0			
Hilf Density Ratio (%)	**103.0**	**99.0**	**95.0**			

Comments

Results relate only to the items tested/sampled.

Dandenong South
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Report No: HDR:W25DS01140
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 6/06/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Site Won
Material:	CLAY

Sample Data

Sample ID	S25DS-04387	S25DS-04388				
Field Sample ID	1	2				
Date Tested	30/05/2025	30/05/2025				
Time Tested	12:00	12:15				
E:	355343 (5341.2000)	355371 (5369.669)				
N:	5778268 (78267.212)	5778267 (78263.316)				
EL:	19.763	19.559				
Lot / Layer:	2725 / 5	2723 / 5				

Field and Laboratory Data

Depth of Test (mm)	175	175				
Depth of Layer (mm)	200	200				
AS Sieve Size (mm)	19.0	19.0				
Oversize Wet (%)	0	0				
Field Moisture Content (%)	17.3	17.0				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m³)	1.93	1.84				
Field Dry Density (t/m³)	1.65	1.57				
Peak Converted Wet Density (t/m³)	1.99	1.99				
Optimum Moisture Content (%)	20.0	19.5				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	87.0	87.0				
Moisture Variation (%)	2.5 dry	2.5 dry				
Hilf Density Ratio (%)	**97.0**	**92.5**				

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS01154
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 6/06/2025

Sample Details

Location: Clyde
Client Request ID:
Specification Requirements: Minimum Hilf Density Ratio of 95%
Field Test procedures: AS 1289.5.8.1
Laboratory Test procedures: AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method: AS1289.1.2.1 Clause 6.4 (b)
Source: Onsite
Material: Clay

Sample Data

Sample ID	S25DS-04461	S25DS-04462	S25DS-04463	S25DS-04464		
Field Sample ID	1	2	3	4		
Date Tested	3/06/2025	3/06/2025	3/06/2025	3/06/2025		
E:	355393 (5392.441)	355378 (5378.390)	355232 (5229.079)	355300 (5299.226)		
N:	5778268 (78250.513	5778265 (78260.104	5778269 (78266.042)	5778263 (78255.52)		
EL:	19.739	19.838	20.743	20.635		
Lot / Layer:	2721 / FSL	2722 / FSL	Future Stage	Future Stage		
			West End / 200mm	Middle / 200mm		

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175		
Depth of Layer (mm)	200	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0	0		
Field Moisture Content (%)	13.6	13.1	20.8	16.7		
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1		
Field Wet Density (t/m³)	1.69	1.86	1.87	1.86		
Field Dry Density (t/m³)	1.49	1.64	1.55	1.59		
Peak Converted Wet Density (t/m³)	1.96	2.03	1.92	1.94		
Optimum Moisture Content (%)	18.0	15.5	23.0	21.0		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Ratio (%)	75.5	83.0	90.0	80.0		
Moisture Variation (%)	4.5 dry	2.5 dry	2.0 dry	4.0 dry		
Hilf Density Ratio (%)	**86.0**	**91.5**	**97.0**	**96.0**		

Comments

Results relate only to the items tested/sampled.

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Report No: HDR:W25DS01168
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 10/06/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 98%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Onsite
Material:	Clay

Sample Data

Sample ID	S25DS-04523					
Field Sample ID	1					
Date Tested	4/06/2025					
Time Tested	10:26					
E:	355368 (5367.700)					
N:	5778258 (78245.540)					
EL:	20.401					
Lot / Layer:	Retaining Wall / 1					

Field and Laboratory Data

Depth of Test (mm)	275					
Depth of Layer (mm)	300					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	25.5					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	2.05					
Field Dry Density (t/m³)	1.63					
Peak Converted Wet Density (t/m³)	1.86					
Optimum Moisture Content (%)	27.5					
Compactive Effort	Standard					
Moisture Ratio (%)	92.0					
Moisture Variation (%)	2.0 dry					
Hilf Density Ratio (%)	**110.0**					

Comments

Results relate only to the items tested/sampled.

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Report No: HDR:W25DS02029
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 22/09/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-07968	S25DS-07969	S25DS-07970	S25DS-07971		
Field Sample ID	1	2	3	4		
Date Tested	26/08/2025	26/08/2025	26/08/2025	26/08/2025		
Time Tested	11:00	11:10	11:20	11:30		
E:	355300	355367	355374	355378		
N:	5778263	5778255	5778265	5778265		
EL:	-	-	-	-		
Lot / Layer:	-	-	-	-		
	Retest of S25DS-04464	Retest of S25DS-04523	Retest of S25DS-04388	Retest of S25DS-04462		
Field and Laboratory Data						
Depth of Test (mm)	175	175	175	175		
Depth of Layer (mm)	200	200	200	200		
AS Sieve Size (mm)	19.0	19.0	19.0	19.0		
Oversize Wet (%)	0	0	0	0		
Field Moisture Content (%)	15.6	14.6	14.3	13.1		
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1		
Field Wet Density (t/m³)	2.10	2.08	2.09	2.01		
Field Dry Density (t/m³)	1.81	1.82	1.83	1.77		
Peak Converted Wet Density (t/m³)	1.99	2.03	2.06	2.05		
Optimum Moisture Content (%)	16.0	16.5	16.5	14.5		
Compactive Effort	Standard	Standard	Standard	Standard		
Moisture Ratio (%)	98.5	87.5	86.0	89.0		
Moisture Variation (%)	0.0	2.0 dry	2.5 dry	1.5 dry		
Hilf Density Ratio (%)	**105.5**	**103.0**	**101.5**	**97.5**		

Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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Report No: HDR:W25DS02174
Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 22/09/2025

Sample Details

Location:	Clyde
Client Request ID:	
Specification Requirements:	Minimum Hilf Density Ratio of 95%
Field Test procedures:	AS 1289.5.8.1
Laboratory Test procedures:	AS 1289.2.1.1, AS 1289.5.7.1
Sampling Method:	AS1289.1.2.1 Clause 6.4 (b)
Source:	Imported
Material:	Clay

Sample Data

Sample ID	S25DS-08478					
Field Sample ID	1					
Date Tested	10/09/2025					
E:	355397					
N:	5778266					
	Retest of S25DS-07972					

Field and Laboratory Data

Depth of Test (mm)	175					
Depth of Layer (mm)	200					
AS Sieve Size (mm)	19.0					
Oversize Wet (%)	0					
Field Moisture Content (%)	18.7					
Field Moisture Content Method	AS 1289.2.1.1					
Field Wet Density (t/m³)	1.98					
Field Dry Density (t/m³)	1.66					
Peak Converted Wet Density (t/m³)	1.97					
Optimum Moisture Content (%)	19.0					
Compactive Effort	Standard					
Moisture Ratio (%)	97.5					
Moisture Variation (%)	0.5 dry					
Hilf Density Ratio (%)	**100.5**					

Comments

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CHADWICK GEOTECHNICS

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Report No: MAT:S25DS-03655/1
Issue No: 1

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
Order No.: **CG Request No.:**
TRN: **Lot No.:**

Accredited for compliance with ISO/IEC 17025 – Testing

Accreditation Number: 12719
Site Number: 12712
Approved Signatory: J. Lamont
(Base Laboratory Manager -
Date of Issue: 6/06/2025

Sample Details

Location	Clyde
Sample Location	E: 355278 (5277.497), N: 5778280 (78275.381), EL: 18.593, Lot: 2730, Layer: 2
Field Sample ID	1
Date Sampled	13/05/2025
Time Sampled	11:20
Source	Imported
Material	CL; CLAY with sand trace gravel, orange brown, low plasticity.
Specification	AS Grading
Sampling Method	AS1289.1.2.1 Clause 6.4 (b)
Sample ID	S25DS-03655

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	16.0	
Date Tested		21/05/2025	
Sample History	AS 1289.1.1	Oven-Dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	8.0	
Mould Length (mm)		125	
Crumbling		No	
Curling		No	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	35	
Plastic Limit (%)	AS 1289.3.2.1	18	
Plasticity Index (%)	AS 1289.3.3.1	17	
Date Tested		2/06/2025	

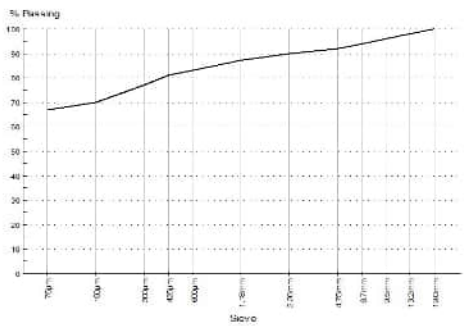
Particle Size Distribution

Method: AS 1289.3.6.1
Drying By: Oven
Date Tested: 27/05/2025

Note: Sample Washed

Sieve Size	% Passing	Limits
19.0mm	100	
13.2mm	98	
9.5mm	96	
6.7mm	94	
4.75mm	92	
2.36mm	90	
1.18mm	87	
600µm	83	
425µm	81	
300µm	77	
150µm	70	
75µm	67	

Chart



Comments

Results relate only to the items tested/sampled.

CHADWICK GEOTECHNICS

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Report No: MAT:S25DS-04331/1
Issue No: 1

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 27
Project No.: 1091938.027
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. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 30/07/2025

Sample Details

Location	Clyde
Sample Location	E: 355163, N: 5778321
Field Sample ID	1
Date Sampled	27/05/2025
Time Sampled	13:46
Source	Imported - Baronia
Material	Clay
Specification	AS Grading
Sampling Method	
Sample ID	S25DS-04331

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	21.2	
Date Tested		4/06/2025	
Sample History	AS 1289.1.1	Oven-Dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	12.0	
Mould Length (mm)		250	
Crumbling		No	
Curling		Yes	
Cracking		Yes	
Liquid Limit (%)	AS 1289.3.1.2	58	
Plastic Limit (%)	AS 1289.3.2.1	17	
Plasticity Index (%)	AS 1289.3.3.1	41	
Date Tested		17/06/2025	

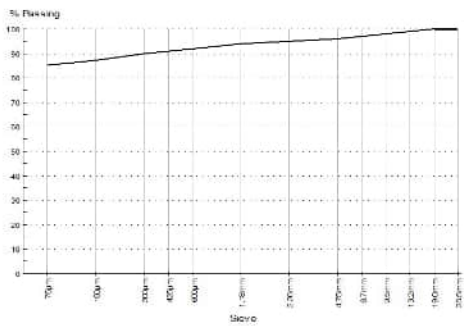
Particle Size Distribution

Method: AS 1289.3.6.1
Drying By: Oven
Date Tested: 6/06/2025

Note: Sample Washed

Sieve Size	% Passing	Limits
26.5mm	100	
19.0mm	100	
13.2mm	99	
9.5mm	98	
6.7mm	97	
4.75mm	96	
2.36mm	95	
1.18mm	94	
600µm	92	
425µm	91	
300µm	90	
150µm	87	
75µm	85	

Chart



Comments

Results relate only to the items tested/sampled.

Appendix D Controlled Fill Certificate

CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Riverfield Square Estate Stage 27
Lots 2701 to 2712 and 2714 to 2741

Chadwick Geotechnics REF:
1091938.027.R1.v1

CLIENT : Greenridge Properties Pty Ltd
P.O Box 4136
Dandenong South Victoria, 3164

DATE: 23 September 2025

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 can 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 topsoil).

This report is based on the conditions present and factors affecting the soil at the time of inspection (11 February 2025 and was completed on 10 September 2025). 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

Robert McKenzie
Project Director

CHADWICK
GEOTECHNICS