



REPORT

Level 1 Geotechnical Inspection and Testing Authority Services

**Riverfield Square Estate Stage 36
Lots 3601, 3605 to 3623 and 3633 to 3659**

Prepared for:

Greenridge Properties Pty Ltd

September 2026

Our Ref: 1091938.036.v1

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Document Control

Title: Level One Inspection and Testing Services.					
Date	Version	Description	Prepared by:	Reviewed by:	Authorised by
September 2026	1	Final	R Barden	D Glover	M Di Meglio

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Greenridge Properties Pty Ltd
Beveridge Williams & Co Pty Ltd

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1 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 36 of the Riverfield Square Estate in Clyde North between 8 September 2025 and 22 July 2026.

This report provides a summary of the earthworks carried out within Stage 36 of the Riverfield Estate development.

2 Project details

2.1 Location

Stage 36 is located to the north of Ballarto Road, and the stage runs south from Viridian Boulevard.

The stage 36 site area is shown on the Site Plan in Appendix A and within Figure 2.1 below is an extract from Metro Map.

Figure 2.1: Approximate site area (extract from Metro Map, image date 15 May 2026)



2.2 Roles and abbreviations

The organisations involved with the project 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 laboratory testing was conducted in our NATA accredited laboratory in Dandenong South (NATA No.12719).

The abbreviations used in this report are listed in Table 2.2 below.

Table 2.2: Abbreviations

Abbreviation	Definition
AS	Australian Standard
AS3798-2007	Guidelines on earthworks for commercial and residential developments
EPA	Environmental Protection Authority
GITA	Geotechnical Inspection and Testing Authority
MC	Moisture Content
SMDD	Standard Maximum Dry Density
NATA	National Association of Testing Authorities (Australia)
SOMC	Standard Optimum Moisture Content
PI	Plasticity Index
PSD	Particle Size Distribution

2.3 Dates on Site

Geotechnical and engineering staff from Chadwick Geotechnics were onsite for the duration of the earthworks program on the days shown in Table 2.3 below.

Table 2.3: Level 1 GITA – Onsite Presence

Month	Dates on site
September 2025	8, 22, 23, 24
October 2025	6, 7, 8, 9
November 2025	26, 27
December 2025	2
March 2026	3, 4, 5, 18
July 2026	21, 22

2.4 Included Areas

This report is applicable to material placed by the contractor on the residential lots within the Riverfield Square Estate Stage 36 site as shown on Figure 2.1 and on the Site Plan in Appendix A, 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 3601, 3605 to 3623 and Lots 3633 to 3659

The stripping process resulted in some localised overexcavation in areas not planned to be filled. Controlled fill was placed and compacted in these areas to achieve the design levels. Consequently, there was a difference in lots planned to be filled and those where fill was actually placed.

2.5 Excluded Areas

This report does not include fill outside the general boundary of the filled lots 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 Specification

There was no formal specification provided for the earthworks. The works were conducted in general accordance with the AS3798-2007 and the earthworks practices adopted across the broader Riverfield Estate development.

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

- All filling shall be undertaken in accordance with AS3798-2007 “Guidelines on Earthworks for Commercial and Residential Development”.

- The fill soils to comply with the 'Suitable Material' in accordance with Section 4.4 of 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).
- 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 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.
- Placement and compaction of engineered fill.

4.2 Fill material

Fill materials used during construction at the site comprised of local gravelly and sandy clays won from the road boxing and trench excavations on this and surrounding sites.

Two bulk samples were sampled during earthwork filling works of stages 35 and 36, with the fill material sourced from the same location for both sites.

The material compliance test results are tabulated in Table 4.1 below. The laboratory test certificates are attached in Appendix D.

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			
S26DS-00055/1	100	100	97	91	76	54	45	16	29
S26DS-00327/1	100	98	94	89	81	45	36	16	20

The laboratory test results indicated the fill material is clay of medium 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 was assessed by the Superintendent as being derived from natural soils and meeting the classification of 'Fill Material' as defined in EPA publication 1828.3-2024 "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: Sandy Clay use on site

4.3 Subgrade Assessment / Proof Roll

The subgrade 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 stripping process resulted in some localised overexcavation in areas not planned to be filled. Controlled fill was subsequently placed and compacted in these areas to achieve the design levels.

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 assessment



Photograph 4: Subgrade assessment

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.

All fill 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
Bulldozer	CAT D6
Compaction	Hamm 15T vibrating pad foot roller
Water cart	Road going truck
Dump Trucks	Volvo A256
Excavator	CAT 25T

Photographs of typical machinery onsite used during construction are shown below.

Photograph 4.3: General Earthwork machinery and fill construction photographs



Photograph 5: Vibrating pad foot roller preparing fill



Photograph 6: Bulldozer used on site during fill construction



Photograph 7: Excavator moving earth



Photograph 8: Water cart conditioning clay

4.5 Density and Moisture testing

Field density and moisture content testing was undertaken progressively during the construction of the compacted fill using a calibrated portable density and moisture gauge in accordance with AS1289.5.8.1. The Hilf rapid compaction test was used for peak converted wet density determinations in accordance with AS1289.5.7.1. 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 at 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 AS3798-2007.

Thirty-five (35) tests were performed during the filling process. Five (5) of the tests did not achieve the recommended density initially. These 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 AS3798-2007- 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 22 July 2026. 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.

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

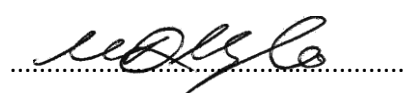
Report prepared by:

Authorised for Chadwick Geotechnics Pty Ltd by:



Robert Barden

Project Manager



Michael Di Meglio

Project Director

Report reviewed by:



David Glover (PE0015860)

Principal Geotechnical Engineer

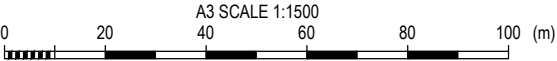
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Appendix A Test location plan



NOTES:

1. AERIAL IMAGE SOURCED FROM METROMAP BY AEROMETREX 2026. COPYRIGHT MAPBOX. COPYRIGHT OPENSTREET MAP.
IMAGERY DATE: 06/01/2026.




ORIGINAL IN COLOUR

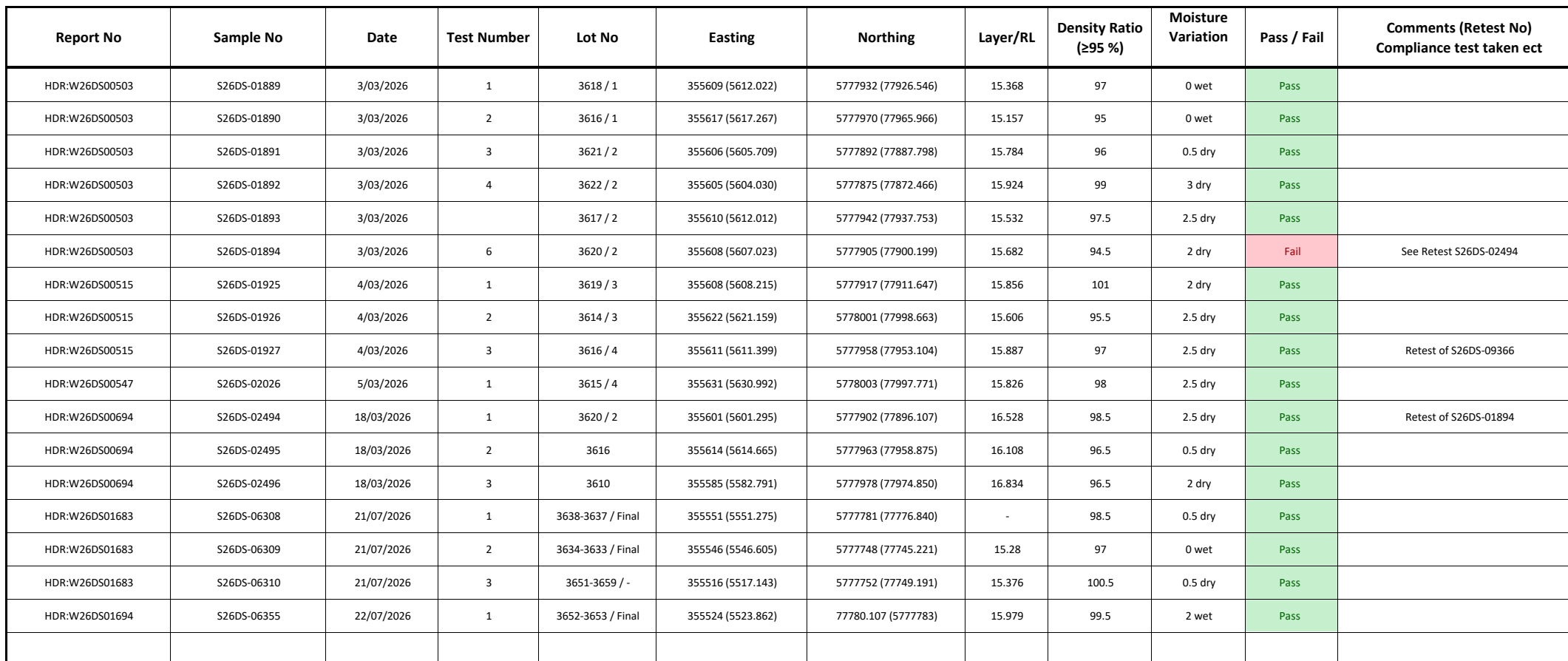
PROJECT No. 1091938.036		
DESIGNED	RHB	Jul.26
DRAWN	KMJA	Jul.26
CHECKED		
APPROVED DATE		

CLIENT	GREENRIDGE PROPERTIES PTY LTD	
	PROJECT RIVERFIELD SQUARE ESTATE IN CLYDE	
TITLE	LEVEL ONE HILF DENSITY TESTING	
	HILF DENSITY TEST LOCATION PLAN	
SCALE (A3)	1:1500	FIG No. 1091938.036-F01
REV	1	

Appendix B Density and moisture test summary

HILF Density Testing - Field Summary

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:W25DS02151	S25DS-08421	8/09/2025	1		355520 (5519.866)	5777818 (77812.387)	15.831	101	3 dry	Pass	
HDR:W25DS02151	S25DS-08422	8/09/2025	2		355554 (5555.231)	5777816 (77810.620)	15.945	97.5	0.5 dry	Pass	
HDR:W25DS02280	S25DS-08858	22/09/2025	1	3641 / 1	355543	5777809	-	95.5	0 dry	Pass	
HDR:W25DS02290	S25DS-08909	23/09/2025	1	3651 / 1	355519	5777795	-	91.5	0 wet	Fail	See Retest S25DS-08965
HDR:W25DS02306	S25DS-08965	24/09/2025	1	3650 / 1	355520	5777798	-	104.5	2 dry	Pass	Retest of S25DS-08909
HDR:W25DS02306	S25DS-08966	24/09/2025	2	3601 / 2	355548	5777844	-	102	1.5 dry	Pass	
HDR:W25DS02306	S25DS-08967	24/09/2025	3	3659 / 2	355520	5777749	-	102.5	2 dry	Pass	
HDR:W25DS02360	S25DS-09282	6/10/2025	1	3608 / 1	355577 (5576.638)	5777952 (77945.419)	16.18	101	0.5 dry	Pass	
HDR:W25DS02366	S25DS-09299	7/10/2025	1	3606 / 2	355570 (5570.497)	5777919 (77918.494)	16.437	99	1.5 wet	Pass	
HDR:W25DS02366	S25DS-09300	7/10/2025	2	3609 / 2	355576 (5575)	5777964	16.493	95	0 dry	Pass	
HDR:W25DS02369	S25DS-09336	8/10/2025	1	3607 / 2	355568 (5568.810)	5777938 (77934.185)	16.792	96.5	2.5 dry	Pass	
HDR:W25DS02369	S25DS-09337	8/10/2025	2	3610 / 2	355572 (5574.857)	5777982 (77978.103)	16.783	92.5	2.5 dry	Fail	See retest S25DS-10525
HDR:W25DS02381	S25DS-09365	9/10/2025	1	3620 / 1	355600 (5600.472)	5777899 (77899.828)	16.208	99	2.5 dry	Pass	
HDR:W25DS02381	S25DS-09366	9/10/2025	2	3616 / 1	355608 (5607.816)	5777956 (77956.135)	15.928	93	3 dry	Fail	See Retest S26DS-01927
HDR:W25DS02616	S25DS-10525	26/11/2025	1	3611 / 2	355578 (5576.634)	5778016 (78010.606)	15.591	103	1.5 dry	Pass	Retest of S26DS-09337
HDR:W25DS02630	S25DS-10608	27/11/2025	1	3613 / -	355605 (5605.267)	5778007 (78003.135)	16.094	94	2.5 wet	Fail	See Retest S26DS-10636
HDR:W25DS02643	S25DS-10635	2/12/2025	1	3612 / Final	355593 (5605.267)	5778007 (78003.135)	16.094	101.5	0 wet	Pass	
HDR:W25DS02643	S25DS-10636	2/12/2025	2	3613 / -	355602 (5601.629)	5778006 (78004.668)	16.094	99.5	0 dry	Pass	Retest of S25DS-10608



Appendix C NATA compaction laboratory reports



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:W25DS02151

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36 Superlot
Project No.: 1091938.036SUP
Order No.:
TRN:

CG Request No.:
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: 10/10/2025
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

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-08421	S25DS-08422			
Field Sample ID	1	2			
Date Tested	8/09/2025	8/09/2025			
Time Tested	10:50	11:20			
E:	355520 (5519.866)	355554 (5555.231)			
N:	5777818 (77812.387)	5777816 (77810.620)			
EL:	15.831	15.945			
Lot / Layer:	- / 1	- / 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 (%)	15.5	17.2			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	2.01	1.99			
Field Dry Density (t/m ³)	1.74	1.69			
Peak Converted Wet Density (t/m ³)	1.99	2.04			
Optimum Moisture Content (%)	18.5	17.5			
Compactive Effort	Standard	Standard			
Moisture Ratio (%)	84.0	98.0			
Moisture Variation (%)	3.0 dry	0.5 dry			
Hilf Density Ratio (%)	101.0	97.5			

Comments

Results relate only to the items tested/sampled.



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:W25DS02280

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 35
Project No.: 1091938.035

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 23/10/2025
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)

Sample Details

Location:
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-08858				
Field Sample ID	1				
Date Tested	22/09/2025				
Time Tested	10:00				
E:	355543.14				
N:	5777807.382				
EL:	-				
Lot / Layer:	- / 1				

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 (%)	14.3				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.98				
Field Dry Density (t/m ³)	1.73				
Peak Converted Wet Density (t/m ³)	2.07				
Optimum Moisture Content (%)	14.5				
Compactive Effort	Standard				
Moisture Ratio (%)	99.0				
Moisture Variation (%)	0.0				
Hilf Density Ratio (%)	95.5				

Comments

Results relate only to the items tested/sampled.



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:W25DS02290

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 35
Project No.: 1091938.035

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 23/10/2025
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)

Sample Details

Location:
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: Silty Clay

Sample Data

Sample ID	S25DS-08909				
Field Sample ID	1				
Date Tested	23/09/2025				
Time Tested	10:45				
E:	-(5519.366)				
N:	-(77793.440)				
EL:	-				
Lot / Layer:	- / 1				

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 (%)	14.8				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.95				
Field Dry Density (t/m ³)	1.70				
Peak Converted Wet Density (t/m ³)	2.13				
Optimum Moisture Content (%)	14.5				
Compactive Effort	Standard				
Moisture Ratio (%)	101.5				
Moisture Variation (%)	0.0				
Hilf Density Ratio (%)	91.5				

Comments

Results relate only to the items tested/sampled.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 35
Project No.: 1091938.035

Order No.: **CG Request No.:**
TRN: **Lot No.:**



Accredited for compliance with ISO/IEC 17025
– Testing



Accreditation Number: 12719
Site Number: 12712
Date of Issue: 29/07/2026
Approved Signatory: B. Taseski
(Branch Laboratory Manager -
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Location:
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-08965	S25DS-08966	S25DS-08967			
Field Sample ID	1	2	3			
Date Tested	24/09/2025	24/09/2025	24/09/2025			
E:	355520	355548	355520			
N:	5777798	5777844	577749			
EL:	-	-	-			
Lot / Layer:	- / 1	- / 2	- / 2			
	Retest of S25DS-08909					

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 (%)	13.1	15.3	14.6			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m³)	2.16	2.12	2.12			
Field Dry Density (t/m³)	1.91	1.84	1.85			
Peak Converted Wet Density (t/m³)	2.07	2.08	2.07			
Optimum Moisture Content (%)	15.0	16.5	16.5			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	87.5	91.0	89.0			
Moisture Variation (%)	2.0 dry	1.5 dry	2.0 dry			
Hilf Density Ratio (%)	104.5	102.0	102.5			

Comments

Results relate only to the items tested/sampled.
Amendment in locations.



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:W25DS02360

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 9/10/2025
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)

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-09282				
Field Sample ID	1				
Date Tested	6/10/2025				
Time Tested	15:20				
E:	355577 (5576.638)				
N:	5777952 (77945.419)				
EL:	16.18				
Lot / Layer:	3608 / 1				

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 (%)	22.1				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.97				
Field Dry Density (t/m ³)	1.62				
Peak Converted Wet Density (t/m ³)	1.95				
Optimum Moisture Content (%)	22.5				
Compactive Effort	Standard				
Moisture Ratio (%)	97.5				
Moisture Variation (%)	0.5 dry				
Hilf Density Ratio (%)	101.0				

Comments

Results relate only to the items tested/sampled.



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

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Report No: HDR:W25DS02366

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
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: 9/10/2025

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

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-09299	S25DS-09300			
Field Sample ID	1	2			
Date Tested	7/10/2025	7/10/2025			
Time Tested	11:40	11:55			
E:	355570 (5570.497)	355576 (5575			
N:	5777919 (77918.494)	5777964			
EL:	16.437	16.493			
Lot / Layer:	3606 / 2	3609 / 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	3			
Field Moisture Content (%)	25.5	12.9			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	1.94	2.07			
Field Dry Density (t/m ³)	1.55	1.83			
Peak Converted Wet Density (t/m ³)	1.96	2.17			
Optimum Moisture Content (%)	24.0	13.0			
Compactive Effort	Standard	Standard			
Moisture Ratio (%)	106.5	99.0			
Moisture Variation (%)	1.5 wet	0.0			
Hilf Density Ratio (%)	99.0	95.0			

Comments

Results relate only to the items tested/sampled.



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:W25DS02369

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
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: 22/04/2026

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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-09336	S25DS-09337			
Field Sample ID	1	2			
Date Tested	8/10/2025	8/10/2025			
Time Tested	13:00	13:15			
E:	355568 (5568.810)	355572 (5574.857)			
N:	5777938 (77934.185)	5777982 (77978.103)			
EL:	16.792	16.783			
Lot / Layer:	3607 / 2	3610 / 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 (%)	15.5	12.9			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	1.94	1.93			
Field Dry Density (t/m ³)	1.68	1.71			
Peak Converted Wet Density (t/m ³)	2.01	2.08			
Optimum Moisture Content (%)	18.0	15.0			
Compactive Effort	Standard	Standard			
Moisture Ratio (%)	86.5	84.5			
Moisture Variation (%)	2.5 dry	2.5 dry			
Hilf Density Ratio (%)	96.5	92.5			

Comments

Results relate only to the items tested/sampled.



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:W25DS02381

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 11/08/2026
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Approved Signatory: B. Taseski
(Branch Laboratory Manager -

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-09365	S25DS-09366				
Field Sample ID	1	2				
Date Tested	9/10/2025	9/10/2025				
Time Tested	10:30	11:00				
E:	355600	355608				
N:	5777899	5777956				
EL:	16.208	15.928				
Lot / Layer:	3620 / 1	3616 / 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 (%)	10.8	18.8				
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1				
Field Wet Density (t/m ³)	2.04	1.83				
Field Dry Density (t/m ³)	1.84	1.54				
Peak Converted Wet Density (t/m ³)	2.06	1.97				
Optimum Moisture Content (%)	13.5	22.0				
Compactive Effort	Standard	Standard				
Moisture Ratio (%)	81.0	86.0				
Moisture Variation (%)	2.5 dry	3.0 dry				
Hilf Density Ratio (%)	99.0	93.0				

Comments

Results relate only to the items tested/sampled.



Dandenong South
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Report No: HDR:W25DS02616

Issue No: 2

This report replaces all previous issues of report no 'HDR:W25DS02616'.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.: **CG Request No.:**
TRN: **Lot No.:**



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 29/07/2026
Approved Signatory: B. Taseski
(Branch Laboratory Manager -
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

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-10525				
Field Sample ID	1				
Date Tested	26/11/2025				
Time Tested	09:00				
E:	355578 (5576.634)				
N:	5778016 (78010.606)				
EL:	15.591				
Layer:	2				
	Retest of S26DS-09337				

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 (%)	17.4				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	2.06				
Field Dry Density (t/m ³)	1.75				
Peak Converted Wet Density (t/m ³)	2.00				
Optimum Moisture Content (%)	19.0				
Compactive Effort	Standard				
Moisture Ratio (%)	92.0				
Moisture Variation (%)	1.5 dry				
Hilf Density Ratio (%)	103.0				

Comments

Results relate only to the items tested/sampled.
Amendment in locations.



Dandenong South
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Report No: HDR:W25DS02630

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 6/03/2026
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Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)

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-10608				
Field Sample ID	1				
Date Tested	27/11/2025				
Time Tested	08:45				
E:	355605 (5605.267)				
N:	5778007 (78003.135)				
EL:	16.094				
Lot / Layer:	3613 / -				

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 (%)	18.4				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	2.00				
Field Dry Density (t/m ³)	1.69				
Peak Converted Wet Density (t/m ³)	2.14				
Optimum Moisture Content (%)	16.0				
Compactive Effort	Standard				
Moisture Ratio (%)	114.5				
Moisture Variation (%)	2.5 wet				
Hilf Density Ratio (%)	94.0				

Comments

Results relate only to the items tested/sampled.



Dandenong South
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Report No: HDR:W25DS02643

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 6/03/2026
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Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)

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-10635	S25DS-10636			
Field Sample ID	1	2			
Date Tested	2/12/2025	2/12/2025			
Time Tested	15:15	15:25			
E:	355593 (5605.267)	355602 (5601.629)			
N:	5778007 (78003.135)	5778006 (78004.668)			
EL:	16.094	16.094			
Lot / Layer:	3612 / Final	3613 / -			
		Retest of S25DS-10608			

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 (%)	18.5	19.8			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	2.08	2.04			
Field Dry Density (t/m ³)	1.75	1.71			
Peak Converted Wet Density (t/m ³)	2.04	2.05			
Optimum Moisture Content (%)	18.5	20.0			
Compactive Effort	Standard	Standard			
Moisture Ratio (%)	100.0	99.5			
Moisture Variation (%)	0.0	0.0			
Hilf Density Ratio (%)	101.5	99.5			

Comments

Results relate only to the items tested/sampled.



Dandenong South
ACN 143 009 330
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DANDENONG SOUTH, VIC 3175

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Report No: HDR:W26DS00503

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)
Date of Issue: 20/03/2026

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	S26DS-01889	S26DS-01890	S26DS-01891	S26DS-01892	S26DS-01893	S26DS-01894
Field Sample ID	1	2	3	4	5	6
Date Tested	3/03/2026	3/03/2026	3/03/2026	3/03/2026	3/03/2026	3/03/2026
Time Tested	09:00	09:15	12:00	12:15	13:30	13:45
E:	355609 (5612.022)	355617 (5617.267)	355606 (5605.709)	355605 (5604.030)	355610 (5612.012)	355608 (5607.023)
N:	5777932 (77926.546)	5777970 (77965.966)	5777892 (77887.798)	5777875 (77872.466)	5777942 (77937.753)	5777905 (77900.199)
EL:	15.368	15.157	15.784	15.924	15.532	15.682
Lot / Layer:	3618 / 1	3616 / 1	3621 / 2	3622 / 2	3617 / 2	3620 / 2

Field and Laboratory Data

Depth of Test (mm)	175	175	175	175	175	175
Depth of Layer (mm)	200	200	200	200	200	200
AS Sieve Size (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize Wet (%)	0	0	0	0	0	0
Field Moisture Content (%)	23.6	20.9	16.3	15.6	13.4	13.7
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1
Field Wet Density (t/m ³)	1.91	1.93	1.99	1.98	1.90	1.95
Field Dry Density (t/m ³)	1.55	1.60	1.71	1.71	1.68	1.72
Peak Converted Wet Density (t/m ³)	1.97	2.03	2.06	2.00	1.95	2.07
Optimum Moisture Content (%)	23.5	21.0	17.0	19.0	15.5	15.5
Compactive Effort	Standard	Standard	Standard	Standard	Standard	Standard
Moisture Ratio (%)	100.5	100.0	96.5	83.0	85.0	88.5
Moisture Variation (%)	0.0	0.0	0.5 dry	3.0 dry	2.5 dry	2.0 dry
Hilf Density Ratio (%)	97.0	95.0	96.0	99.0	97.5	94.5

Comments

Results relate only to the items tested/sampled.



Dandenong South
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25 Metcalf Street
DANDENONG SOUTH, VIC 3175

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Report No: HDR:W26DS00515

Issue No: 2

This report replaces all previous issues of report no 'HDR:W26DS00515'.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Approved Signatory: B. Taseski
(Branch Laboratory Manager -
Date of Issue: 29/07/2026

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	S26DS-01925	S26DS-01926	S26DS-01927			
Field Sample ID	1	2	3			
Date Tested	4/03/2026	4/03/2026	4/03/2026			
Time Tested	10:40	11:30	15:50			
E:	355608 (5608.215)	355622 (5621.159)	355611 (5611.399)			
N:	5777917 (77911.647)	5778001 (77998.663)	5777958 (77953.104)			
EL:	15.856	15.606	15.887			
Lot / Layer:	3619 / 3	3614 / 3	3616 / 2			
			Retest of S26DS-09366			

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 (%)	16.1	13.2	15.0			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	2.00	1.95	1.98			
Field Dry Density (t/m ³)	1.72	1.72	1.72			
Peak Converted Wet Density (t/m ³)	1.98	2.04	2.04			
Optimum Moisture Content (%)	18.5	15.5	17.5			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	88.0	84.5	85.5			
Moisture Variation (%)	2.0 dry	2.5 dry	2.5 dry			
Hilf Density Ratio (%)	101.0	95.5	97.0			

Comments

Results relate only to the items tested/sampled.
Amendment in locations.



Dandenong South
ACN 143 009 330
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DANDENONG SOUTH, VIC 3175

Ph: + 61 3 8796 7900
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Report No: HDR:W26DS00547

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 20/03/2026
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Approved Signatory: M. Di Meglio
(Practice Lead - Technical Services)

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	S26DS-02026				
Field Sample ID	1				
Date Tested	5/03/2026				
Time Tested	09:15				
E:	355631 (5630.992)				
N:	5778003 (77997.771)				
EL:	15.826				
Lot / Layer:	3615 / 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 (%)	13.5				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	1.99				
Field Dry Density (t/m ³)	1.75				
Peak Converted Wet Density (t/m ³)	2.03				
Optimum Moisture Content (%)	16.0				
Compactive Effort	Standard				
Moisture Ratio (%)	85.0				
Moisture Variation (%)	2.5 dry				
Hilf Density Ratio (%)	98.0				

Comments

Results relate only to the items tested/sampled.



Dandenong South
ACN 143 009 330
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Ph: + 61 3 8796 7900
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Report No: HDR:W26DS00694

Issue No: 2

This report replaces all previous issues of report no 'HDR:W26DS00694'.

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 29/07/2026
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Approved Signatory: B. Taseski
(Branch Laboratory Manager -

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	S26DS-02494	S26DS-02495	S26DS-02496			
Field Sample ID	1	2	3			
Date Tested	18/03/2026	18/03/2026	18/03/2026			
Time Tested	10:15	10:36	10:40			
E:	355601 (5601.295)	355614 (5614.665)	355585 (5582.791)			
N:	5777902 (77896.107)	5777963 (77958.875)	5777978 (77974.850)			
EL:	16.528	16.108	16.834			
Lot / Layer:	3620 / 2	3616 / Final	3610 / Final			
	Retest of S26DS-01894					

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 (%)	12.6	14.0	13.9			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	2.02	1.95	1.96			
Field Dry Density (t/m ³)	1.80	1.71	1.72			
Peak Converted Wet Density (t/m ³)	2.05	2.01	2.03			
Optimum Moisture Content (%)	15.0	14.5	16.0			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	83.0	95.0	88.0			
Moisture Variation (%)	2.5 dry	0.5 dry	2.0 dry			
Hilf Density Ratio (%)	98.5	96.5	96.5			

Comments

Results relate only to the items tested/sampled.
Amendment in locations.



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:W26DS01683

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:

Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712

Approved Signatory: B. Taseski
(Branch Laboratory Manager -
Date of Issue: 23/07/2026

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

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	S26DS-06308	S26DS-06309	S26DS-06310			
Field Sample ID	1	2	3			
Date Tested	21/07/2026	21/07/2026	21/07/2026			
Time Tested	08:40	09:00	09:10			
E:	355551 (5551.275)	35346 (5546.605)	355516 (5517.143)			
N:	5777781 (77776.840)	5777748 (77745.221)	5777752 (77749.191)			
EL:	-	15.280	15.376			
Lot / Layer:	3638-3637 / Final	3634-3633 / Final	3651-3659 / -			

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 (%)	20.8	16.0	15.1			
Field Moisture Content Method	AS 1289.2.1.1	AS 1289.2.1.1	AS 1289.2.1.1			
Field Wet Density (t/m ³)	1.99	2.01	2.09			
Field Dry Density (t/m ³)	1.65	1.73	1.82			
Peak Converted Wet Density (t/m ³)	2.02	2.07	2.08			
Optimum Moisture Content (%)	21.0	16.0	15.5			
Compactive Effort	Standard	Standard	Standard			
Moisture Ratio (%)	98.5	100.5	96.5			
Moisture Variation (%)	0.5 dry	0.0	0.5 dry			
Hilf Density Ratio (%)	98.5	97.0	100.5			

Comments

Results relate only to the items tested/sampled.



Dandenong South
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Report No: HDR:W26DS01694

Issue No: 1

HILF Density Ratio Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 36
Project No.: 1091938.036

Order No.:
TRN:

CG Request No.:
Lot No.:



Accredited for compliance with ISO/IEC 17025
– Testing

Accreditation Number: 12719
Site Number: 12712
Date of Issue: 27/07/2026
THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Approved Signatory: B. Taseski
(Branch Laboratory Manager -

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	S26DS-06355				
Field Sample ID	1				
Date Tested	22/07/2026				
Time Tested	11:00				
E:	355524 (5523.862)				
N:	77780.107 (5777783)				
EL:	15.979				
Lot / Layer:	3652-3653 / Final				

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 (%)	19.7				
Field Moisture Content Method	AS 1289.2.1.1				
Field Wet Density (t/m ³)	2.07				
Field Dry Density (t/m ³)	1.73				
Peak Converted Wet Density (t/m ³)	2.08				
Optimum Moisture Content (%)	18.0				
Compactive Effort	Standard				
Moisture Ratio (%)	110.0				
Moisture Variation (%)	2.0 wet				
Hilf Density Ratio (%)	99.5				

Comments

Results relate only to the items tested/sampled.

Appendix D NATA compliance laboratory report

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 35
Project No.: 1091938.035

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: 6/03/2026

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Sample Details

Sample Location E: 355505 (5504.521), N: 5778024 (78020.365), EL: 17.475, Lot: 3502, Layer: 1
Field Sample ID 1
Date Sampled 7/01/2025
Time Sampled 08:30
Source Onsite
Material Clay
Specification AS Grading
Sampling Method AS1289.1.2.1 Clause 6.4 (b)
Sample ID S26DS-00055

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	13.7	
Date Tested		12/01/2026	
Sample History	AS 1289.1.1	Oven-Dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	11.5	
Mould Length (mm)		250	
Crumbling		No	
Curling		Yes	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	45	
Plastic Limit (%)	AS 1289.3.2.1	16	
Plasticity Index (%)	AS 1289.3.3.1	29	
Date Tested		14/01/2026	

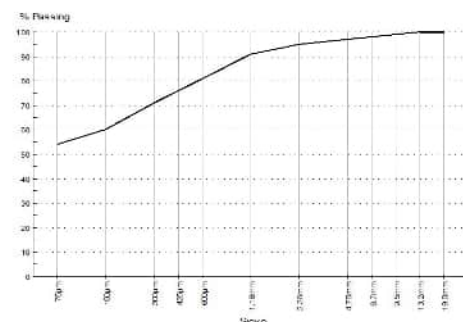
Particle Size Distribution

Method: AS 1289.3.6.1
Drying By: Oven
Date Tested: 13/01/2026

Note: Sample Washed

Sieve Size	% Passing	Limits
19.0mm	100	
13.2mm	100	
9.5mm	99	
6.7mm	98	
4.75mm	97	
2.36mm	95	
1.18mm	91	
600µm	81	
425µm	76	
300µm	71	
150µm	60	
75µm	54	

Chart



Comments

Results relate only to the items tested/sampled.

Material Test Report

Client: Greenridge Properties Pty Ltd
Address: PO Box 3131
 AUBURN VIC 3123
Project: Riverfield Square Estate, Stage 35
Project No.: 1091938.035

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: 6/03/2026

THIS DOCUMENT SHALL NOT BE REPRODUCED EXCEPT IN FULL

Sample Details

Sample Location E: 355492, N: 5777944, EL: -, Lot: 3507, Layer: Final
Field Sample ID 1
Date Sampled 23/01/2026
Time Sampled 09:10
Source Onsite
Material Clay
Specification AS Grading
Sampling Method AS1289.1.2.1 Clause 6.4 (b)
Sample ID S26DS-00327

Other Test Results

Description	Method	Result	Limits
Moisture Content (%)	AS 1289.2.1.1	15.2	
Date Tested		27/01/2026	
Sample History	AS 1289.1.1	Oven-Dried	
Preparation	AS 1289.1.1	Dry Sieved	
Linear Shrinkage (%)	AS 1289.3.4.1	11.5	
Mould Length (mm)		250	
Crumbling		No	
Curling		No	
Cracking		No	
Liquid Limit (%)	AS 1289.3.1.2	36	
Plastic Limit (%)	AS 1289.3.2.1	16	
Plasticity Index (%)	AS 1289.3.3.1	20	
Date Tested		6/02/2026	

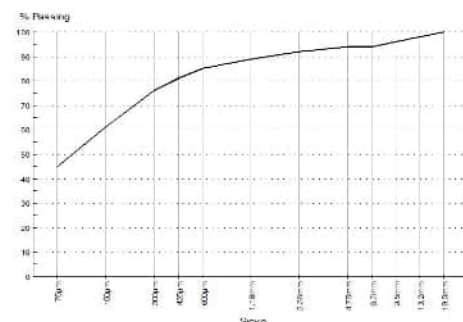
Particle Size Distribution

Method: AS 1289.3.6.1
Drying By: Oven
Date Tested: 29/01/2026

Note: Sample Washed

Sieve Size	% Passing	Limits
19.0mm	100	
13.2mm	98	
9.5mm	96	
6.7mm	94	
4.75mm	94	
2.36mm	92	
1.18mm	89	
600µm	85	
425µm	81	
300µm	76	
150µm	61	
75µm	45	

Chart



Comments

Results relate only to the items tested/sampled.

Appendix E Controlled fill certificate



CONTROLLED FILL CERTIFICATE - LEVEL 1 INSPECTION & TESTING

PROJECT : Riverfield Square Stage 36,
Lots 3601, 3605 to 3623 and 3633 to 3659.

Chadwick Geotechnics REF: 1091938.036.v1

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

DATE: September 2026

SUMMARY

Chadwick Geotechnics Pty Ltd conducted, Level 1 inspection and testing, in accordance with Section 8.2 of 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 specifications.

LIMITATIONS

This Certificate has been commissioned for the filling of the lots mentioned above and is based on the site conditions present at the time of the inspections (8 September 2025 and 22 July 2026). 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, or where there has been a change in the nature of the project or the site conditions since the site testing.

Chadwick Geotechnics Pty Ltd

Robert Barden
Project Coordinator

Michael Di Meglio
Project Director

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