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LEVEL 1 INSPECTION & TESTING REPORT

ALAMORA ESTATE, STAGE 19, TARNEIT

Prepared for Winslow Constructors Pty Ltd

Report Reference: GS7766.1 AA

Date: 17 September 2024

ABN 31 105 704 078

13 Brock Street, Thomastown

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PROJECT DETAILS

Project Reference	GS7766.1	Rev	AA
Project Title	Alamora Estate, Stage 19		
Project Location	Tarneit	State	VIC
Date	17 September 2024		

CLIENT DETAILS

Prepared For (Client)	Winslow Constructors
Client Address	Corner of Beattys Road & Leakes Road, Aintree, VIC 3366

DISTRIBUTION

Original Held By	Ground Science Pty Ltd
One (1) Electronic Copy	Winslow Constructors

This document presents the results of Level 1 Inspection and Testing performed by Ground Science for the aforementioned project, as the nominated project Geotechnical Inspection & Testing Authority (GITA). This report is detailed for the sole use of the intended recipient(s). Should you have any questions related to this report please do not hesitate to contact the undersigned.



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Senior Geotechnical Engineer

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Ground Science Pty Ltd

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1. INTRODUCTION

This report presents the results of the Level 1 inspection activities, compaction control services and laboratory testing services performed by Ground Science for the Alamora Estate, Stage 19 project, located in Tarneit, Victoria (the site).

2. PROJECT BACKGROUND

Ground Science was engaged to provide Level 1 Inspection and testing services for the Stage 19 bulk earthworks component of the project. Authorisation to proceed was provided by Winslow Constructors (the 'Client'), who were the nominated project earthworks contractors.

Level 1 Inspection & Testing, as defined in AS3798 (2007) 'Guidelines on Earthworks for Commercial and Residential Developments' provides for full time inspection of the construction of controlled fill and compaction testing in accordance with AS1289 'Methods of Testing Soils for Engineering Purposes' and AS1726 (2017) 'Geotechnical Site Investigations'.

Ground Science performed the role of the project Geotechnical Inspection & Testing Authority (GITA) with all Level 1 Inspection and Testing services described in this report undertaken by an experienced GITA site representative.

3. SCOPE OF WORKS

3.1 AREAS & DURATION OF WORKS

This report details the Level 1 earthworks process which commenced on 28 August 2024 to 10 September 2024 requiring 10 full days on-site inspection and testing services. The filling works generally took place on proposed allotments within Stage 19.

3.2 PLACEMENT METHODOLOGY

The placement of the controlled fill on the above-mentioned areas was carried out in general accordance with Level 1 Inspection & testing fill procedures as detailed in Section 8.2 of AS3798 (2007) 'Guidelines on Earthworks for Commercial and Residential Developments'.

The fill placement methodology for the works involved:

1. preparing the base by stripping all loose surficial fill, soft material, vegetation, and materials containing significant organic matter to expose the natural soil subgrade
2. sorting and mixing the fill materials to eliminate oversize particles greater than 20 % by volume, no particles coarser than 37.5 mm, and no particle over 200 mm in any dimension
3. placing approved fill material in loose horizontal layers not exceeding 250 mm in thickness
4. compacting the controlled fill materials to achieve a target dry density ratio of not less than 95 % Standard Compaction (AS 1289: 5.1.1. 5.4.1 or 5.7.1)
5. moisture-conditioning the fill to within 85 % - 115 % of the standard optimum moisture content (SOMC)
6. completing field density testing at a frequency for large scale developments (Type 1 AS3798) which nominates a frequency of the following:
 - one test per layer or 200 mm per 2500 m²
 - one test per 500 m³ distributed reasonably evenly throughout the full depth and area, or
 - three tests per site visit; whichever requires the most tests.

4. INSPECTION AND TESTING RESULTS

4.1 SUBGRADE PREPARATION

Subgrade preparation works were conducted progressively during the earthworks phase. The fill placement zones generally required stripping of surficial topsoil, vegetation and organics (including root matter). Scrapers and graders were used to complete the subgrade preparation works.

The stripped subgrade was visually assessed using tactile methods described in AS1726 (2017) by the onsite GITA. The materials were observed to generally comprise Silty CLAY (CH), dark brown/red to dark brown/red/orange, with varying proportions of sand / gravel and are inferred to be residual Newer Volcanic Group deposits. The stripped subgrade was generally dry to wet of the inferred optimum moisture content (OMC).

The subgrade was ripped using a grader, moisture conditioned and subsequently test rolled in the presence of the onsite GITA prior to placement of fill, with no deflections/springing/rutting observed. The subgrade was considered suitable for subsequent fill placement.

4.2 FILL SOURCE MATERIALS

The fill material used was nominated by the on-site contractor. Table 1 summarises the fill source sites and general material properties:

Table 1: Fill Source Sites & General Material Properties

Source Site	General Material Description
Onsite stockpiles	Silty CLAY / CLAY (CH), brown / brown-red, with sand/gravel
Existing onsite stockpiles (material sourced from Max Bright)	Silty CLAY / CLAY (CH), brown to dark brown, with sand/gravel

4.3 INSPECTION OF FILL SOURCE MATERIALS

Ground Science performed an assessment of the fill source materials for the following:

- identifying fill material suitability (engineering properties) including cohesion and composition
- spotting any building debris and vegetative matter (cleanliness) of the fill
- distinguishing oversize rock particles
- examining the fill moisture.

4.3.1 MATERIAL SUITABILITY

The fill materials were noted to be compliant with AS3798 Section 4.0 for the intent and purpose of general filling.

4.3.2 BUILDING DEBRIS & VEGETATIVE MATTER

Building debris and vegetative matter was not observed in the fill matrix.

4.3.3 OVERSIZE PARTICLES

Oversize particles were observed during placement of fill, requiring removal using the scraper during placement.

4.3.4 FILL MOISTURE

The fill source was assessed to be generally dry of the inferred OMC. A water cart was used to moisture condition the fill during placement.

4.3.5 CONTAMINATION TESTING

Ground Science did not perform any chemical or contamination analysis of the fill. The project contractor is responsible to ensure that the fill materials conform to the relevant EPA guidelines.

4.4 FILL CONSTRUCTION

The contractor had the following plant available on-site during the construction period for use in the fill placement;

1. water cart (two machines)
2. dump trucks & trailers
3. 815 compactor (one to two machines)
4. Scraper (between one to three machines)
5. grader.

4.4.1 CLIMATE

During fill placement, the weather conditions were generally cool and overcast, with temperatures typically ranging between 9 to 22 degrees Celsius. Windy conditions were regularly encountered (strong gusts on some days).

4.4.2 FILLING PROCESS

The filling process was generally consistent throughout the project. The process typically involved the fill materials carted to the site by dump trucks and trailers and stockpiled adjacent to the fill placement zones.

The fill materials were spread using the scraper and grader into thin loose layers measuring between 150 mm to 200 mm thick. Each layer was compacted using the 815 compactor, applying a minimum of 7 to 14 passes per layer observed. A water cart was used to moisture condition the fill material during. Oversize particles were removed during spreading of the fill material using the onsite scraper.

The thin layers were compacted to form a composite layer measuring approximately 200 mm to 250 mm thick before field density testing was carried out. On some days, a scraper was used to trim and seal the filled surface at the end of the days production.

It is considered that a 100 mm to 150 mm thick layer of topsoil would be spread at the completion of all works, which does not form part of the Level 1 process. Any fill placed as part of newly constructed drainage, sewer works, or similar does not form part of this Level 1 report.

4.5 COMPACTION CONTROL & MOISTURE TESTING RESULTS

Throughout the filling process and/or at the completion of the days production, compaction control testing was performed to assess the achieved density ratio of each layer. The onsite GITA nominated the location and performed each test.

Testing comprised a total of 42 density tests using a nuclear moisture-density gauge and 42 rapid HILF compaction tests (AS1289 5.8.1 and AS1289 5.7.1).

In general, all areas were found to achieve the minimum target density ratio of 95 % Standard Compaction. The moisture variation was generally within the recommended $\pm 3\%$ of OMC with exception to two test zones, which failed to achieve the recommended moisture ratio. These areas were subsequently ripped, moisture conditioned, re-rolled and re-tested, with compliant test results achieved.



A summary of the field density tests performed for the project is presented in **Appendix A**. Field density and compaction control testing report sheets are presented in **Appendix B**. It should be noted that the tests are a representation of the fill placed and support the visual assessment of the works completed.

4.6 FINAL SURFACE LEVELS

Observations were made by a Ground Science staff member that filling had been completed up to the nominated finished levels as per confirmation provided by the contractor's site foreman. The observed final levels are the constructed finished surface levels of the controlled fill.

It should be noted that the overall fill depths are estimated using onsite visual tactile methods and may not be a true representation of fill depths given that conditions on-site may change over time. True fill depths should be obtained from the contractor's survey data.

5. COMPLIANCE

Ground Science Staff have undertaken Level 1 Inspection and Testing services of the construction of the controlled fill in the areas shown in Appendix A. Ground Science field staff have also observed that the prepared subgrade provided an adequate base for the subsequent placement of controlled fill.

Based on observations made by Ground Science staff and the results of density tests, we consider that the controlled fill placed has been constructed in accordance with the guidelines provided by AS3798 (2007) and AS2870 (2011).

It should be noted that the final fill layers may be subjected to adverse weather conditions resulting in either surface softening or drying and cracking over time; regardless of the compactive efforts and moisture conditioning applied during the works.

The integrity of the top 200 mm to 300 mm of the fill will deteriorate with time and should be taken into account by the foundation engineer prior to the construction of dwellings or buildings.



6. UNDERSTANDING LEVEL 1 INSPECTION & TESTING AND THE ROLE OF A GITA

The purpose of performing Level 1 Inspection and Testing is to ensure compliance of the fill with the specification.

The engagement of a Geotechnical Inspection Testing Authority (GITA) is provided to document the activities completed by the civil contractor and allows the contractor to perform their role in the construction of the filling operation while the GITA monitors the quality control process of the fill placement.

The visual observations of thorough processes and work practices by the contractor allows the GITA to approve the subsequent placement of fill without having to wait for the completion of testing and the extended time it takes to get a test result back.

The GITA will however, carry out random spot checks of the filling operations throughout the day's production as confirmation that the placement procedures and the fill moisture content is appropriate. At the end of a day's production the GITA will sign off the completed works as satisfactory based on visual observations.

Any failed tests identified post the days production will result in that particular area of operation requiring rectification in the following activities. This may be as simple as extra rolling with compaction plant if moisture conditioning is suitable. Sometimes these areas may be retested if the GITA feels it is necessary.

While AS3798 (2007) is a guideline on the minimum requirements of filling on commercial and residential developments, some projects require a more detailed project specification to deal with site specific issues. While moisture conditioning of fill sources aids in the ease with which compaction is achieved, it is not necessarily a physical characteristic that determines if the placed fill is acceptable.

In some situations, the moisture requirement is an extremely important function of the final constructed product. In these situations, a specific project specification should apply to the project as detailed by the designing geotechnical engineer.

These are typical of clay liners for wet lands, dams, landfill liners and caps and an array of other engineering situations. Creating a consolidated platform of which is similar to equivalent surrounding natural conditions is the primary aim of level one processes and preventing the occurrence of differential ground movements to footing structures.

Level 1 Inspection & Testing requires full time inspection and testing of the fill placement undertaken on a site. Ground Science (project GITA), are notified daily (or at the completion of each day's work) by the project foreman where subsequent days of fill placement under Level 1 is to occur.

On projects that rely upon the importation of a fill source, there can be delays in the receipt of sufficient materials to warrant fill placement works which may result in periods of time where a GITA representative is not required on site.

It is the contractor's responsibility to notify the GITA when works proceed and their attendance on site is required again. A GITA relies upon the integrity of the contractor to advise when site attendance is required and makes all reasonable visual attempts to assess if the works are the same as the previous days attendance.

Note: A GITA is not a site supervisor and does not instruct the construction team. Advice may be sought from the GITA, to assist with achieving compaction.



7. LIMITATIONS

This type of investigation (as per our commission) is not designed or capable of locating all soil conditions, (which can vary even over short distances). The advice given in this report is based on the assumption that the test results are representative of the overall soil conditions.

However, it should be noted that actual conditions in some parts of the Site might differ from those found. If further sampling reveals soil conditions significantly different from those shown in our findings, Ground Science must be consulted.

Maintenance and upkeep of finished fill placement must be regularly monitored as exposure to extended weather periods/other elements may cause surface drying which may lead to cracking. Conversely, excessive exposure to moisture may cause heaving/softening in the soils.

It is recognised that the passage of time affects the information and assessment provided in this document. Ground Science's assessment is based on information that existed at the time of the preparation of this document.

It is understood that the services provided allowed Ground Science to form no more than an opinion of the actual site conditions observed during sampling and observations of the site visit and cannot be used to assess the effects of any subsequent changes in the quality of the site, or its surroundings, or any laws or regulations.

The scope and the period of Ground Science services are described in the proposal and are subject to restrictions and limitations. Ground Science did not perform a complete assessment of all possible conditions or circumstances that may exist at the Site.

If a service is not expressly indicated, do not assume it has been provided. If a matter is not addressed, do not assume that any determination has been made by Ground Science in regards to it.

Where data has been supplied by the client or a third party, it is assumed that the information is correct unless otherwise stated. No responsibility is accepted by Ground Science for incomplete or inaccurate data supplied by others.

Any drawings or figures presented in this report should be considered only as pictorial evidence of our work. Therefore, unless otherwise stated, any dimensions should not be used for accurate calculations or dimensioning.

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8. REFERENCES

- AS3798 (2007) Guidelines on Earthworks for Residential and Commercial Developments.
- AS1289 Methods of Testing Soils for Engineering Purposes.
- AS1726 (2017): Geotechnical Site Investigations
- AS2870 (2011) 'Residential Slabs & Footings'.

APPENDIX A

Field Density Test Summary & Test Locations

Project Summary Report



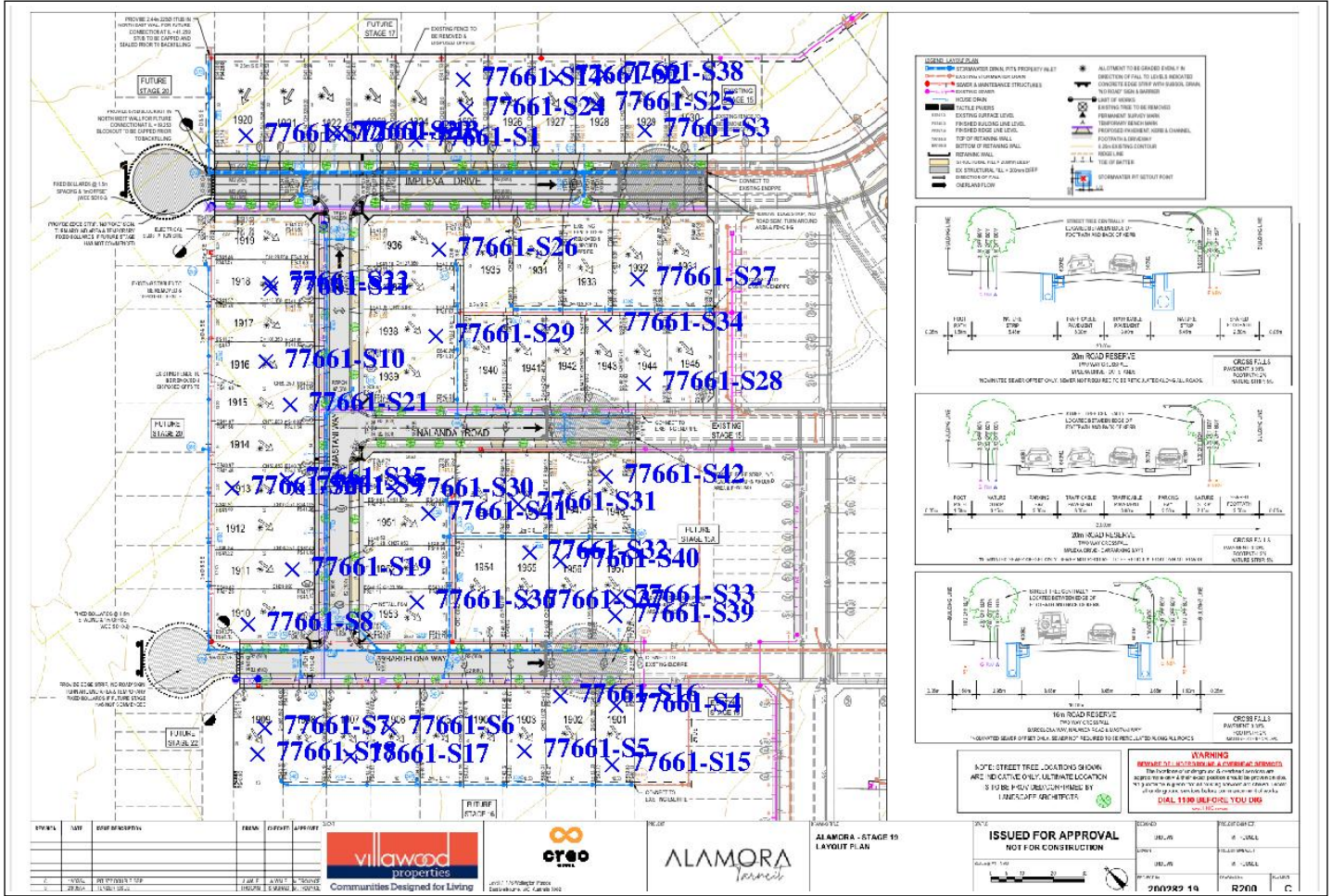
Report Date: 12/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Test Methods: AS 1289 5.7.1 STD & 5.8.1 & 2.1.1

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 13 Brock Street Thomastown Victoria 3074
 Phone: (03) 9464 4617
 Email: Tim@groundscience.com.au

Lot #	Sample #	Date Sampled	Location	Easting	Northing	Elevation (m)	Layer	Relative Compaction (%)	Moisture Variation (%)	Moisture Content (%)	Field Wet Density (t/m3)
**	77661-S1	31/08/2024	Lot 1924	292175	5807815	**	1	99.5	2.5	22.2	1.91
**	77661-S2	31/08/2024	Lot 1927	292223	5807792	**	1	95.0	2.0	20.2	1.82
**	77661-S3	31/08/2024	Lot 1929	292235	5807755	**	1	96.5	2.5	19.8	1.89
**	77661-S4	31/08/2024	Lot 1901	292082	5807640	**	1	105.0	2.0	19.3	2.03
**	77661-S5	31/08/2024	Lot 1903	292068	5807655	**	1	101.0	2.0	21.4	1.94
**	77661-S6	02/09/2024	Lot 1906	292034	5807687	**	1	100.5	0.0	29.6	1.88
**	77661-S7	02/09/2024	Lot 1909	292000	5807716	**	1	99.0	0.5	30.6	1.82
**	77661-S8	02/09/2024	Lot 1910	292028	5807750	**	1	104.5	2.0	32.7	1.89
**	77661-S9	02/09/2024	Lot 1913	292058	5807762	**	1	101.0	-0.5	29.6	1.93
**	77661-S10	02/09/2024	Lot 1916	292083	5807800	**	1	101.0	3.0	30.7	1.83
**	77661-S11	02/09/2024	Lot 1918	292106	5807821	**	1	101.0	2.5	29.9	1.88
**	77661-S12	03/09/2024	Lot 1920	292145	5807855	**	2	105.5	0.0	31.6	1.94
**	77661-S13	03/09/2024	Lot 1922	292160	5807836	**	2	101.5	0.0	32.0	1.92
**	77661-S14	03/09/2024	Lot 1925	292202	5807823	**	2	103.0	2.5	27.0	1.85
**	77661-S15	03/09/2024	Lot 1901	292078	5807626	**	2 - final layer	101.0	1.5	28.4	1.88
**	77661-S16	03/09/2024	Lot 1902	292084	5807648	**	2 - final layer	96.0	-3.0	32.1	1.81
**	77661-S17	04/09/2024	Lot 1907	292020	5807697	**	Layer 2 - final layer	104.5	2.5	28.4	1.94
**	77661-S18	04/09/2024	Lot 1909	291997	5807712	**	Layer 2 - final layer	99.0	0.0	31.6	1.79
**	77661-S19	04/09/2024	Lot 1911	292047	5807744	**	Layer 2 - final layer	100.0	-1.0	33.4	1.84
**	77661-S20	04/09/2024	Lot 1913	292052	5807777	**	Layer 2 - final layer	94.5	0.0	32.6	1.75
**	77661-S21	04/09/2024	Lot 1915	292086	5807785	**	Layer 2 - final layer	98.0	-0.5	33.0	1.82
**	77661-S22	04/09/2024	Lot 1918	292103	5807814	**	Layer 2 - final layer	102.5	0.0	33.0	1.86
**	77661-S23	06/09/2024	Lot 1922	292167	5807853	**	3 - final layer	101.0	2.0	33.2	1.83
**	77661-S24	06/09/2024	Lot 1925	292191	5807817	**	3 - final layer	104.0	2.5	30.7	1.88
**	77661-S25	06/09/2024	Lot 1928	292225	5807787	**	3 - final layer	103.5	4.5	29.7	1.87
**	77661-S26	06/09/2024	Lot 1936	292151	5807783	**	1 - final layer	105.5	3.0	28.7	1.88
**	77661-S27	06/09/2024	Lot 1932	292193	5807737	**	1 - final layer	106.5	3.0	23.0	1.85
**	77661-S28	06/09/2024	Lot 1944	292171	5807712	**	1 - final layer	101.5	0.0	34.1	1.86
**	77661-S29	06/09/2024	Lot 1938	292133	5807758	**	1 - final layer	98.5	-1.0	35.3	1.80
**	77661-S30	09/09/2024	Lot 1950	292097	5807742	**	1	100.0	0.0	32.5	1.87
**	77661-S31	09/09/2024	Lot 1948	292115	5807714	**	1	103.5	2.5	31.0	1.86
**	77661-S32	09/09/2024	Lot 1955	292104	5807687	**	1	101.5	-0.5	31.4	1.83
**	77661-S33	09/09/2024	Lot 1957	292129	5807675	**	1	102.0	1.0	29.4	1.89
**	77661-S34	09/09/2024	Lot 1943	292170	5807736	**	1 - final layer	100.5	2.0	30.7	1.85
**	77661-S35	09/09/2024	Retest S20	292062	5807770	**	3 - final layer	101.0	1.5	28.8	1.85
**	77661-S36	10/09/2024	Lot 1953	292093	5807686	**	2 - final layer	100.0	0.0	31.3	1.88
**	77661-S37	10/09/2024	Lot 1955	292071	5807711	**	2 - final layer	101.0	0.0	32.9	1.83
**	77661-S38	10/09/2024	Retest S25	292224	5807790	**	3 - final layer	101.0	0.0	32.5	1.84
**	77661-S39	11/09/2024	Lot 1957	292112	5807654	**	2 - final layer	104.0	0.5	**	1.88
**	77661-S40	11/09/2024	Lot 1956	292106	5807683	**	2 - final layer	101.5	0.5	**	1.84
**	77661-S41	11/09/2024	Lot 1951	292100	5807722	**	2 - final layer	103.5	0.0	**	1.92
**	77661-S42	11/09/2024	Lot 1946	292145	5807691	**	2 - final layer	100.0	1.0	**	1.82

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC



APPENDIX B

Field Density Test Reports

Material Test Report



Report Number: GS7766/1-2
Issue Number: 1
Date Issued: 04/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Work Request: 19889
Date Sampled: 31/08/2024
Dates Tested: 31/08/2024 - 03/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, grey, brown
Material Source: Onsite

Ground Science Pty Ltd
 Ground Science Laboratory
 13 Brock Street Thomastown Victoria 3074
 Phone: (03) 9464 4617
 Email: kallam@groundscience.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



K. Collins

Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

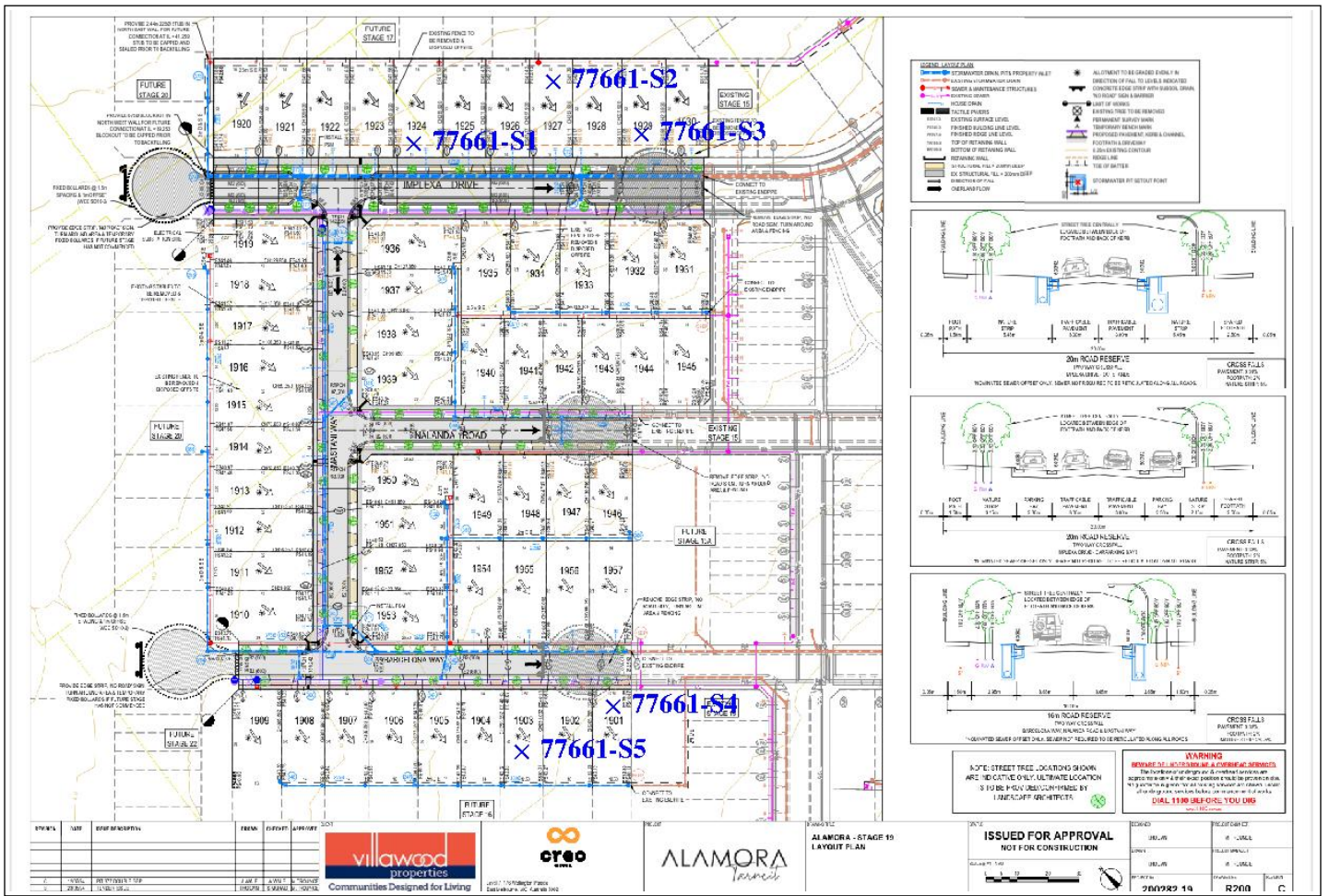
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1					
Sample Number	77661-S1	77661-S2	77661-S3	77661-S4	77661-S5
Date Tested	31/08/2024	31/08/2024	31/08/2024	31/08/2024	31/08/2024
Time Tested	08:45	09:15	09:30	11:30	11:45
Test Request #/Location	Lot 1924	Lot 1927	Lot 1929	Lot 1901	Lot 1903
Easting	292175	292223	292235	292082	292068
Northing	5807815	5807792	5807755	5807640	5807655
Layer / Reduced Level	1	1	1	1	1
Thickness of Layer (mm)	200	200	200	250	250
Soil Description	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey
Test Depth (mm)	175	175	175	225	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	4	2	11	1	7
Field Wet Density (FWD) t/m ³	1.91	1.82	1.89	2.03	1.94
Field Moisture Content %	22.2	20.2	19.8	19.3	21.4
Field Dry Density (FDD) t/m ³	1.56	1.51	1.58	1.70	1.60
Peak Converted Wet Density t/m ³	**	**	**	**	**
Adjusted Peak Converted Wet Density t/m ³	1.92	1.91	1.96	1.93	1.92
Moisture Variation (Wv) %	**	**	**	**	**
Adjusted Moisture Variation %	2.5	2.0	2.5	2.0	2.0
Hilf Density Ratio (%)	99.5	95.0	96.5	105.0	101.0
Compaction Method	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location



Material Test Report



Report Number: GS7766/1-3
Issue Number: 1
Date Issued: 04/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Work Request: 19894
Date Sampled: 02/09/2024
Dates Tested: 02/09/2024 - 04/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown, grey
Material Source: Onsite

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K. Collins

Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

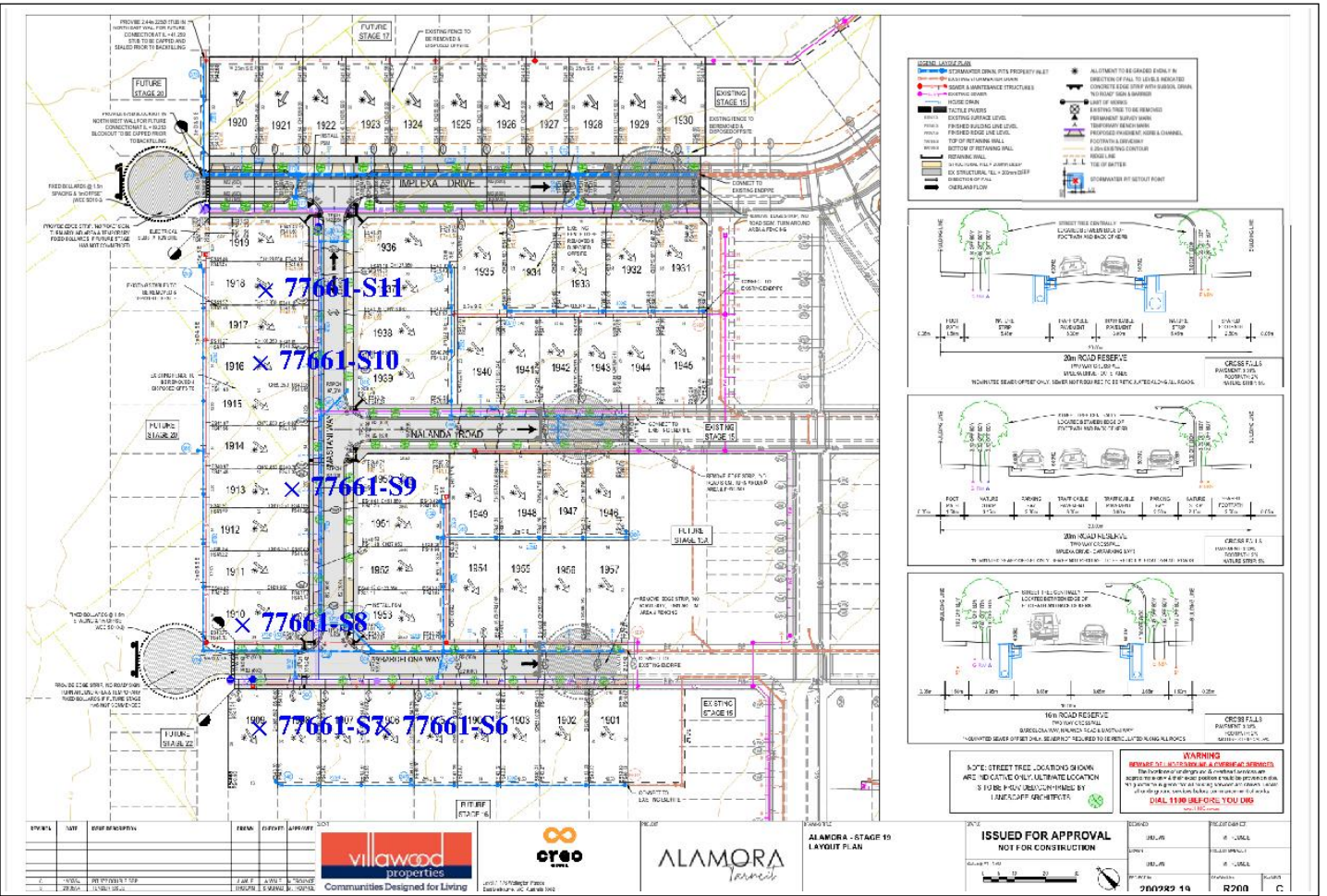
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	77661-S6	77661-S7	77661-S8	77661-S9	77661-S10	77661-S11
Date Tested	02/09/2024	02/09/2024	02/09/2024	02/09/2024	02/09/2024	02/09/2024
Time Tested	09:45	10:10	13:30	13:50	14:15	14:35
Test Request #/Location	Lot 1906	Lot 1909	Lot 1910	Lot 1913	Lot 1916	Lot 1918
Easting	292034	292000	292028	292058	292083	292106
Northing	5807687	5807716	5807750	5807762	5807800	5807821
Layer / Reduced Level	1	1	1	1	1	1
Thickness of Layer (mm)	250	200	300	300	300	300
Soil Description	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown
Test Depth (mm)	225	175	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	2	0	0	1	0	10
Field Wet Density (FWD) t/m ³	1.88	1.82	1.89	1.93	1.83	1.88
Field Moisture Content %	29.6	30.6	32.7	29.6	30.7	29.9
Field Dry Density (FDD) t/m ³	1.45	1.40	1.43	1.49	1.40	1.45
Peak Converted Wet Density t/m ³	**	1.84	1.81	**	1.81	**
Adjusted Peak Converted Wet Density t/m ³	1.87	**	**	1.91	**	1.86
Moisture Variation (Wv) %	**	0.5	2.0	**	3.0	**
Adjusted Moisture Variation %	0.0	**	**	-0.5	**	2.5
Hilf Density Ratio (%)	100.5	99.0	104.5	101.0	101.0	101.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location



LEGEND

- EXISTING PROPERTY PITS
- EXISTING SURFACE LEVEL
- PROPOSED SUBSIDING LEVEL
- PROPOSED ROAD LEVEL
- TOP OF RETAINING WALL
- BOTTOM OF RETAINING WALL
- REFRAMING WALL
- EXISTING WALL
- OVERLAP FLOW

NOTES:

- ALL TRENCHES SHALL BE PROTECTED BY A DIRECTION OF FALL TO LEADS & INDICATED CONCRETE LEVEL LINE WITH FURNISHING TO MAINTAIN SIGN BARRIERS
- EXISTING TREES TO BE REMOVED
- PROPOSED SIGNAGE
- TEMPORARY SIGNAGE
- PROPOSED SIGNAGE
- FOOTPATH & LIGHTING
- EXISTING SIGNAGE
- REMODEL
- TOP OF WATER
- INTERPRETER BY SETOUT POINT

30m ROAD RESERVE

16m ROAD RESERVE

30m ROAD RESERVE

16m ROAD RESERVE

WARNING

ARE NOT STRENGTH ONLY. ULTIMATE LOCATION IS TO BE PROVIDED BY THE ENGINEER. CONSULT WITH THE ENGINEER.

ISSUED FOR APPROVAL NOT FOR CONSTRUCTION

DATE: 20/09/2019

SCALE: 1:100

Communities Designed for Living	1/10/19 Alamoora Place, Essendon Vic 3040	ALAMORA - STAGE 19 LAYOUT PLAN

Material Test Report



Report Number: GS7766/1-4
Issue Number: 1
Date Issued: 05/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Work Request: 19915
Date Sampled: 03/09/2024 8:00
Dates Tested: 03/09/2024 - 04/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown, grey
Material Source: Onsite

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K. Collins

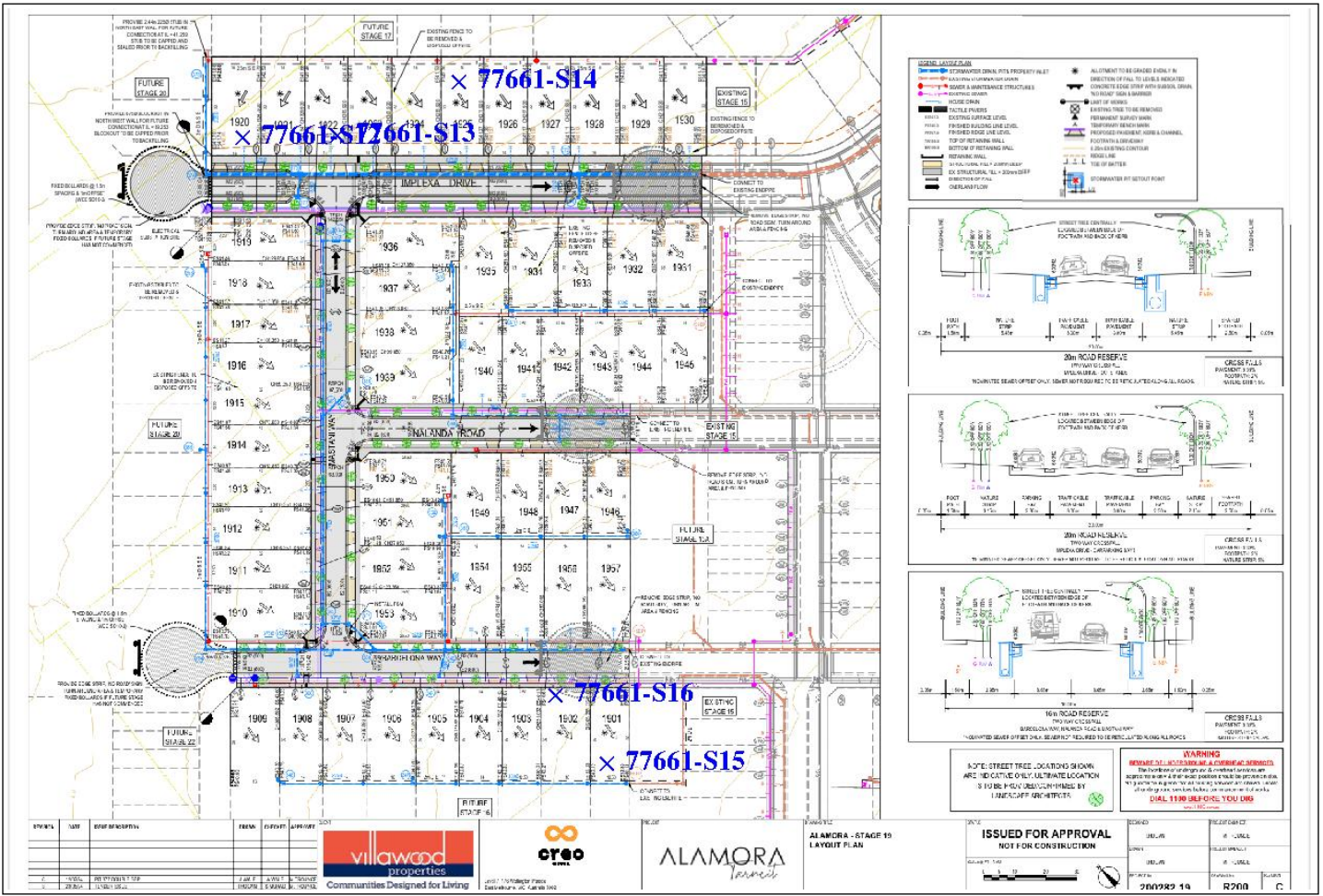
Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1					
Sample Number	77661-S12	77661-S13	77661-S14	77661-S15	77661-S16
Date Tested	03/09/2024	03/09/2024	03/09/2024	03/09/2024	03/09/2024
Time Tested	09:45	10:15	10:40	11:45	12:10
Test Request #/Location	Lot 1920	Lot 1922	Lot 1925	Lot 1901	Lot 1902
Easting	292145	292160	292202	292078	292084
Northing	5807855	5807836	5807823	5807626	5807648
Layer / Reduced Level	2	2	2	2 - final layer	2 - final layer
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey
Test Depth (mm)	175	175	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	5	0	0	5	0
Field Wet Density (FWD) t/m ³	1.94	1.92	1.85	1.88	1.81
Field Moisture Content %	31.6	32.0	27.0	28.4	32.1
Field Dry Density (FDD) t/m ³	1.47	1.45	1.46	1.47	1.37
Peak Converted Wet Density t/m ³	**	1.89	1.80	**	1.89
Adjusted Peak Converted Wet Density t/m ³	1.83	**	**	1.87	**
Moisture Variation (Wv) %	**	0.0	2.5	**	-3.0
Adjusted Moisture Variation %	0.0	**	**	1.5	**
Hilf Density Ratio (%)	105.5	101.5	103.0	101.0	96.0
Compaction Method	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**

Moisture Variation Note:

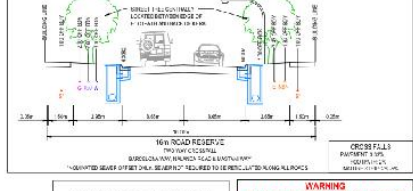
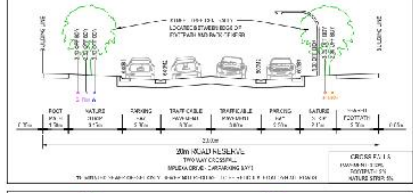
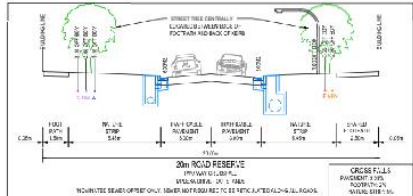
Positive values = test is dry of OMC
 Negative values = test is wet of OMC



LEGEND

- PROPERTY BOUNDARY (G.P.S. PROPERTY VUE)
 - EXISTING/NEW UTILITY LOCATIONS
 - EXISTING/NEW STRUCTURES
 - EXISTING/NEW DRIVE
 - FUTURE DRIVE
 - EXISTING/SUBSIDED LEVEL
 - PROPOSED/SUBSIDED LEVEL
 - TOP OF RETAINING WALL
 - BOTTOM OF RETAINING WALL
 - REFERENCE WALL
 - EXISTING/NEW WALL
 - EXISTING/NEW WALL
 - OVERFLOW

- ALL ELEVATIONS TO BE GRABED EXACTLY IN DIRECTION OF FALL TO GIVE A INDICATED CORRECT LEVEL LINE WITH PIVOT POINT TO REMAIN SIGN & BARREN
 - EXISTING TREE TO BE DEMOLISHED
 - PERMITTED SHEDDING
 - TEMPORARY ENCLOSURE
 - PERMITTED EXISTING WALKWAY CHANNEL
 - FOOTING & FLOORING
 - EXISTING/NEW CONCRETE
 - REBAR LINE
 - TOP OF WATER
 - INFORMATION BY SETOUT POINT



WARNING
 BEFORE SETTING OUT AND COMMENCING WORKS
 THE TOTAL NUMBER OF TREES TO BE DEMOLISHED AND REPLANTED MUST BE APPROVED BY THE LOCAL COUNCIL AND A TREE MANAGEMENT PLAN MUST BE SUBMITTED AND APPROVED BY THE LOCAL COUNCIL.
DO NOT REMOVE ANY TREES WITHOUT A TREE MANAGEMENT PLAN.

ISSUED FOR APPROVAL
 NOT FOR CONSTRUCTION

SCALE
 1:200

DATE
 28/09/2014

PROJECT
 ALAMEDA - STAGE 19 LAYOUT PLAN

CLIENT
 villawood properties

DESIGNER
 GROUND SCIENCE

APPROVED BY
 R200

Material Test Report



Report Number: GS7766/1-5
Issue Number: 1
Date Issued: 06/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Work Request: 19947
Date Sampled: 04/09/2024 8:00
Dates Tested: 04/09/2024 - 05/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown
Material Source: Onsite

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K. Collins

Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

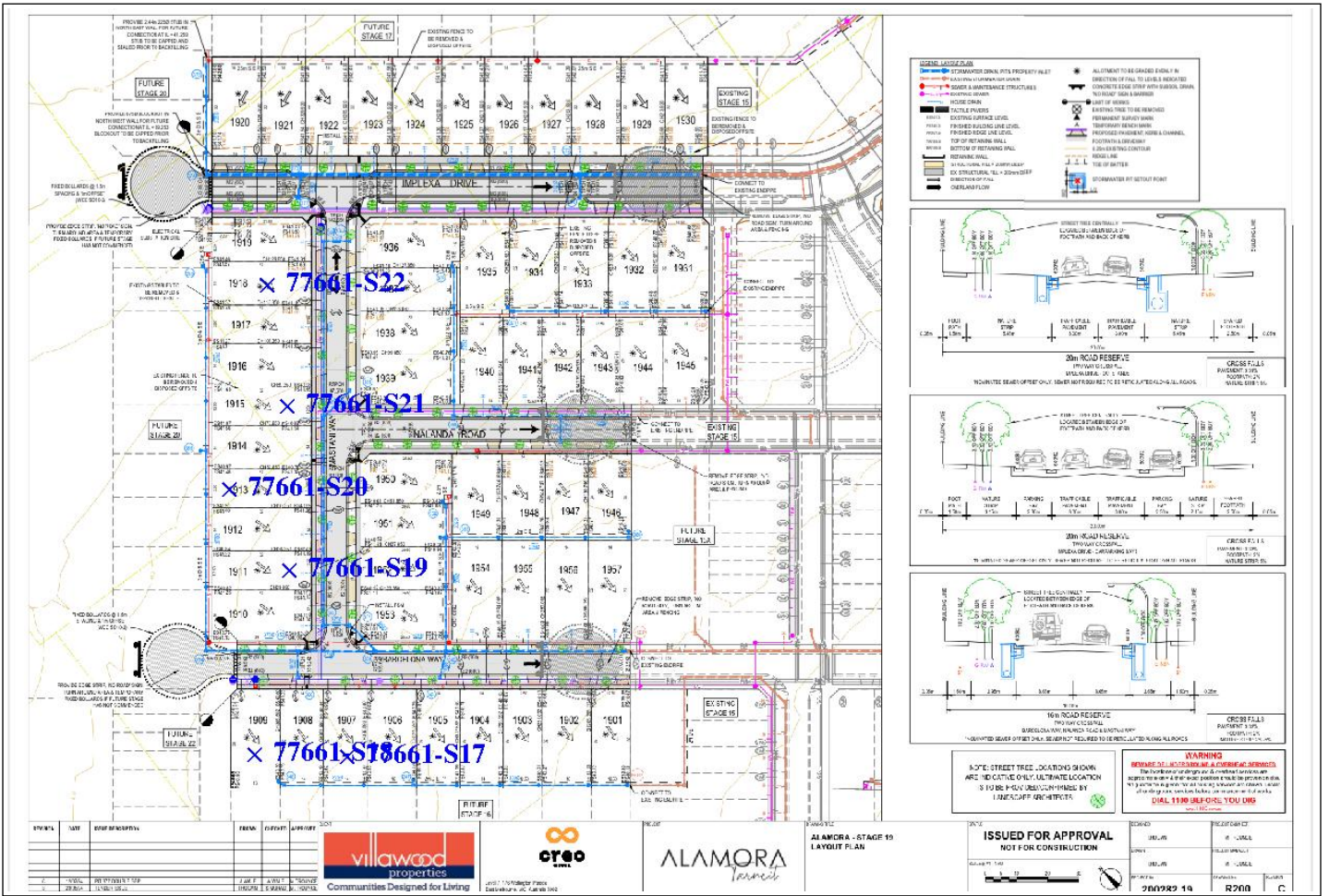
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	77661-S17	77661-S18	77661-S19	77661-S20	77661-S21	77661-S22
Date Tested	04/09/2024	04/09/2024	04/09/2024	04/09/2024	04/09/2024	04/09/2024
Time Tested	11:15	11:35	11:45	12:15	12:30	12:45
Test Request #/Location	Lot 1907	Lot 1909	Lot 1911	Lot 1913	Lot 1915	Lot 1918
Easting	292020	291997	292047	292052	292086	292103
Northing	5807697	5807712	5807744	5807777	5807785	5807814
Layer / Reduced Level	Layer 2 - final layer	Layer 2 - final layer	Layer 2 - final layer	Layer 2 - final layer	Layer 2 - final layer	Layer 2 - final layer
Thickness of Layer (mm)	300	300	200	200	200	200
Soil Description	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown
Test Depth (mm)	275	275	175	175	175	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	6	0	0	0	0	0
Field Wet Density (FWD) t/m ³	1.94	1.79	1.84	1.75	1.82	1.86
Field Moisture Content %	28.4	31.6	33.4	32.6	33.0	33.0
Field Dry Density (FDD) t/m ³	1.51	1.36	1.38	1.32	1.37	1.40
Peak Converted Wet Density t/m ³	**	1.81	1.84	1.85	1.85	1.82
Adjusted Peak Converted Wet Density t/m ³	1.85	**	**	**	**	**
Moisture Variation (Wv) %	**	0.0	-1.0	0.0	-0.5	0.0
Adjusted Moisture Variation %	2.5	**	**	**	**	**
Hilf Density Ratio (%)	104.5	99.0	100.0	94.5	98.0	102.5
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location



GENERAL NOTES

- ALL DIMENSIONS GIVEN IN METERS UNLESS OTHERWISE SPECIFIED.
- ALL DIMENSIONS TO FACE UNLESS OTHERWISE SPECIFIED.
- ALL DIMENSIONS TO BE TAKEN FROM THE CENTERLINE OF THE ROAD UNLESS OTHERWISE SPECIFIED.
- ALL DIMENSIONS TO BE TAKEN FROM THE CENTERLINE OF THE ROAD UNLESS OTHERWISE SPECIFIED.
- ALL DIMENSIONS TO BE TAKEN FROM THE CENTERLINE OF THE ROAD UNLESS OTHERWISE SPECIFIED.

LEGEND

- EXISTING ROAD CENTERLINE
- EXISTING ROAD WIDTH
- EXISTING ROAD GRADE
- EXISTING ROAD SURFACE
- EXISTING ROAD DRAINAGE
- EXISTING ROAD UTILITIES
- EXISTING ROAD STRUCTURES
- EXISTING ROAD FENCES
- EXISTING ROAD LIGHTING
- EXISTING ROAD SIGNAGE
- EXISTING ROAD LANDSCAPING
- EXISTING ROAD UTILITIES
- EXISTING ROAD STRUCTURES
- EXISTING ROAD FENCES
- EXISTING ROAD LIGHTING
- EXISTING ROAD SIGNAGE
- EXISTING ROAD LANDSCAPING

30m ROAD RESERVE

30m ROAD RESERVE

30m ROAD RESERVE

16m ROAD RESERVE

WARNING

THIS PLAN IS FOR INFORMATION ONLY. IT IS NOT TO BE USED FOR CONSTRUCTION. THE INFORMATION ON THIS PLAN IS FOR INFORMATION ONLY. IT IS NOT TO BE USED FOR CONSTRUCTION. THE INFORMATION ON THIS PLAN IS FOR INFORMATION ONLY. IT IS NOT TO BE USED FOR CONSTRUCTION.

<p>Communities Designed for Living</p>	<p>ALAMORA</p>	<p>ALAMORA - STAGE 19 LAYOUT PLAN</p>
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ISSUED FOR APPROVAL NOT FOR CONSTRUCTION

DATE: 20/09/2019

SCALE: 1:1000

PROJECT: ALAMORA - STAGE 19

CLIENT: R200

DESIGNER: GSC

Material Test Report



Report Number: GS7766/1-6
Issue Number: 1
Date Issued: 09/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Work Request: 20003
Date Sampled: 06/09/2024
Dates Tested: 06/09/2024 - 09/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown, grey
Material Source: Onsite

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K. Collins

Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	77661-S23	77661-S24	77661-S25	77661-S26
Date Tested	06/09/2024	06/09/2024	06/09/2024	06/09/2024
Time Tested	09:25	09:45	10:30	13:15
Test Request #/Location	Lot 1922	Lot 1925	Lot 1928	Lot 1936
Easting	292167	292191	292225	292151
Northing	5807853	5807817	5807787	5807783
Layer / Reduced Level	3 - final layer	3 - final layer	3 - final layer	1 - final layer
Thickness of Layer (mm)	200	200	200	250
Soil Description	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey
Test Depth (mm)	175	175	175	225
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0
Field Wet Density (FWD) t/m ³	1.83	1.88	1.87	1.88
Field Moisture Content %	33.2	30.7	29.7	28.7
Field Dry Density (FDD) t/m ³	1.38	1.44	1.44	1.46
Peak Converted Wet Density t/m ³	1.81	1.81	1.81	1.78
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**
Moisture Variation (Wv) %	2.0	2.5	4.5	3.0
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	101.0	104.0	103.5	105.5
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report



Report Number: GS7766/1-6
Issue Number: 1
Date Issued: 09/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Work Request: 20003
Date Sampled: 06/09/2024
Dates Tested: 06/09/2024 - 09/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown, grey
Material Source: Onsite

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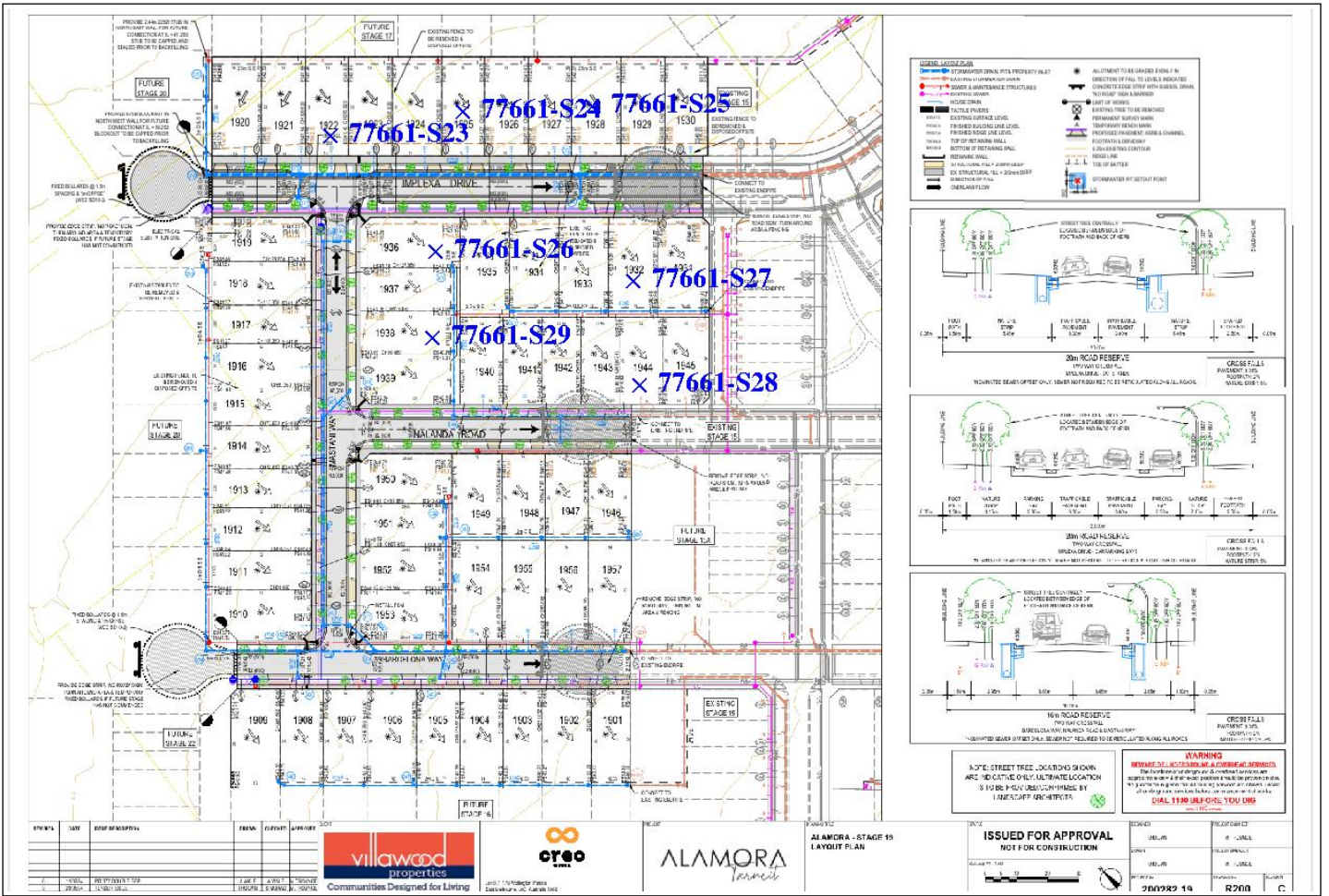
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	77661-S27	77661-S28	77661-S29	
Date Tested	06/09/2024	06/09/2024	06/09/2024	
Time Tested	13:35	13:50	14:10	
Test Request #/Location	Lot 1932	Lot 1944	Lot 1938	
Easting	292193	292171	292133	
Northing	5807737	5807712	5807758	
Layer / Reduced Level	1 - final layer	1 - final layer	1 - final layer	
Thickness of Layer (mm)	250	250	250	
Soil Description	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	Silty CLAY, medium to high plasticity, brown, grey	
Test Depth (mm)	225	225	225	
Sieve used to determine oversize (mm)	19.0	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	0	
Field Wet Density (FWD) t/m ³	1.85	1.86	1.80	
Field Moisture Content %	23.0	34.1	35.3	
Field Dry Density (FDD) t/m ³	1.50	1.38	1.33	
Peak Converted Wet Density t/m ³	1.74	1.83	1.83	
Adjusted Peak Converted Wet Density t/m ³	**	**	**	
Moisture Variation (Wv) %	3.0	0.0	-1.0	
Adjusted Moisture Variation %	**	**	**	
Hilf Density Ratio (%)	106.5	101.5	98.5	
Compaction Method	Standard	Standard	Standard	
Report Remarks	**	**	**	

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location



Material Test Report



Report Number: GS7766/1-7
Issue Number: 1
Date Issued: 11/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Work Request: 20026
Date Sampled: 09/09/2024 8:00
Dates Tested: 09/09/2024 - 10/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, grey,brown
Material Source: Onsite

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K. Collins

Approved Signatory: Kallam Collins
Laboratory 21C

NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	77661-S30	77661-S31	77661-S32	77661-S33	77661-S34	77661-S35
Date Tested	09/09/2024	09/09/2024	09/09/2024	09/09/2024	09/09/2024	09/09/2024
Time Tested	10:30	10:45	11:10	11:35	11:45	14:15
Test Request #/Location	Lot 1950	Lot 1948	Lot 1955	Lot 1957	Lot 1943	Retest S20
Easting	292097	292115	292104	292129	292170	292062
Northing	5807742	5807714	5807687	5807675	5807736	5807770
Layer / Reduced Level	1	1	1	1	1 - final layer	2 - final layer
Thickness of Layer (mm)	300	300	300	300	250	200
Soil Description	Silty CLAY, medium to high plasticity, grey, brown	Silty CLAY, medium to high plasticity, grey, brown	Silty CLAY, medium to high plasticity, grey, brown	Silty CLAY, medium to high plasticity, grey, brown	Silty CLAY, medium to high plasticity, grey, brown	Silty CLAY, medium to high plasticity, grey, brown
Test Depth (mm)	275	275	275	275	225	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0	0	0	0
Field Wet Density (FWD) t/m ³	1.87	1.86	1.83	1.89	1.85	1.85
Field Moisture Content %	32.5	31.0	31.4	29.4	30.7	28.8
Field Dry Density (FDD) t/m ³	1.41	1.42	1.39	1.46	1.41	1.43
Peak Converted Wet Density t/m ³	1.87	1.80	1.80	1.86	1.84	1.83
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Moisture Variation (Wv) %	0.0	2.5	-0.5	1.0	2.0	1.5
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	100.0	103.5	101.5	102.0	100.5	101.0
Compaction Method	Standard	Standard	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report



Report Number: GS7766/1-8
Issue Number: 1
Date Issued: 12/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Work Request: 20045
Date Sampled: 10/09/2024
Dates Tested: 10/09/2024 - 11/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, brown, grey
Material Source: Onsite

Ground Science Pty Ltd
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 Phone: (03) 9464 4617
 Email: kallam@groundscience.com.au

Accredited for compliance with ISO/IEC 17025 - Testing



K. Collins

Approved Signatory: Kallam Collins
Laboratory 2IC

NATA Accredited Laboratory Number: 15055

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	77661-S36	77661-S37	77661-S38
Date Tested	10/09/2024	10/09/2024	10/09/2024
Time Tested	09:35	09:59	14:00
Test Request #/Location	Lot 1953	Lot 1955	Retest S25
Easting	292093	292071	292224
Northing	5807686	5807711	5807790
Layer / Reduced Level	2 - final layer	2 - final layer	3 - final layer
Thickness of Layer (mm)	300	300	200
Soil Description	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown
Test Depth (mm)	275	275	175
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	0
Field Wet Density (FWD) t/m ³	1.88	1.83	1.84
Field Moisture Content %	31.3	32.9	32.5
Field Dry Density (FDD) t/m ³	1.43	1.38	1.39
Peak Converted Wet Density t/m ³	1.88	1.82	1.82
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.0	0.0	0.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	100.0	101.0	101.0
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Material Test Report



Report Number: GS7766/1-9
Issue Number: 1
Date Issued: 13/09/2024
Client: Winslow Constructors Pty Ltd
 Lot 13, 6 Latchford Street, Cranbourne West VIC 3977
Contact: Cole McCune
Project Number: GS7766/1
Project Name: Alamora Estate Stage 19 (Level One)
Project Location: Tarneit
Work Request: 20068
Date Sampled: 11/09/2024 8:00
Dates Tested: 11/09/2024 - 12/09/2024
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 95% Standard Compaction & +/- 3% Moisture Variation
Location: Tarneit
Material: Silty CLAY, medium to high plasticity, grey, brown
Material Source: Onsite

Ground Science Pty Ltd
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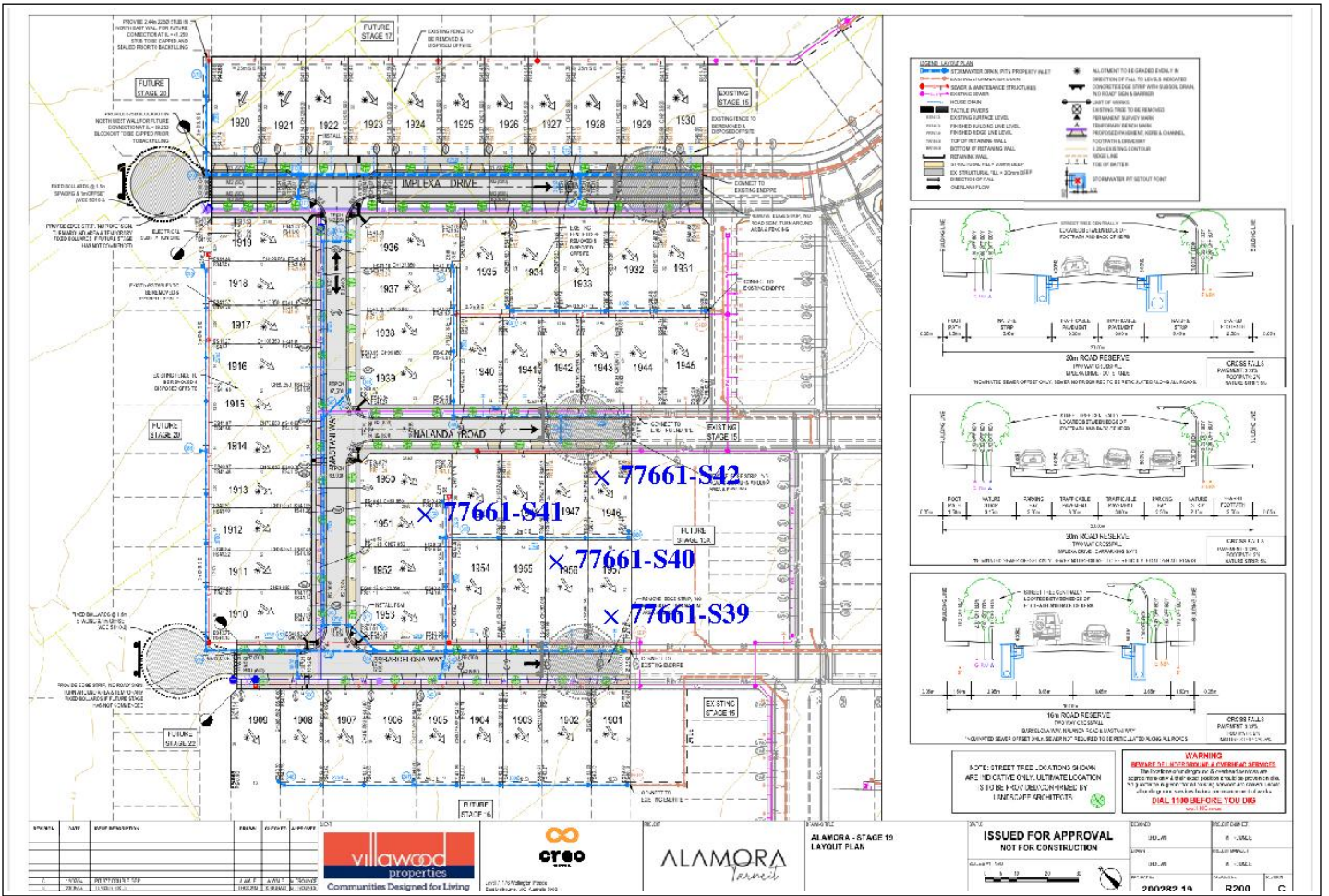
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1				
Sample Number	77661-S39	77661-S40	77661-S41	77661-S42
Date Tested	11/09/2024	11/09/2024	11/09/2024	11/09/2024
Time Tested	09:05	09:25	09:40	09:55
Test Request #/Location	Lot 1957	Lot 1956	Lot 1951	Lot 1946
Easting	292112	292106	292100	292145
Northing	5807654	5807683	5807722	5807691
Layer / Reduced Level	2 - final layer	2 - final layer	2 - final layer	2 - final layer
Thickness of Layer (mm)	300	300	300	300
Soil Description	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown	Silty CLAY, medium to high plasticity, grey brown
Test Depth (mm)	275	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0	0	4	0
Field Wet Density (FWD) t/m ³	1.88	1.84	1.92	1.82
Field Moisture Content %	32.0	31.9	31.5	29.6
Field Dry Density (FDD) t/m ³	1.43	1.40	1.46	1.40
Peak Converted Wet Density t/m ³	1.81	1.82	**	**
Adjusted Peak Converted Wet Density t/m ³	**	**	1.86	1.82
Moisture Variation (Wv) %	0.5	0.5	**	**
Adjusted Moisture Variation %	**	**	0.0	1.0
Hilf Density Ratio (%)	104.0	101.5	103.5	100.0
Compaction Method	Standard	Standard	Standard	Standard
Report Remarks	**	**	**	**

Moisture Variation Note:

Positive values = test is dry of OMC
 Negative values = test is wet of OMC

Sample Locations Plan

x - approximate test location



APPENDIX C

Site Photographs





31 Aug 2024 11:51:59 am
GS7766/1 Day 3
fill placement continuing on lots 1901 to 1919



5 Sep 2024 8:50:49 am
GS7766/1 Day 7
fill placement lots 1931 to 1945

