



LEVEL ONE EARTHWORKS REPORT

**PROPOSED RESIDENTIAL DEVELOPMENT
TILLERMAN STAGE 1
PARK RIDGE ROAD
PARK RIDGE**

JUNE 20, 2023

SHADFORTH CIVIL

Authored by: QUALTEST LABORATORY PTY LTD

REF: 3806



Qualtest Laboratory

Est. 1987

Ref: 3806
Job: 22-541
Author: R. Mitchell

19th June 2023

Shadforth Civil
99 Sandalwood Lane
Forest Glen Qld 4556

ATTENTION: **MR ASHLEY GWAMBA**
Email: ashley.gwamba@shadcivil.com.au
Cc: aden.maythers@shadcivil.com.au

Dear Sir,

RE: LEVEL ONE EARTHWORKS REPORT

**PROJECT: PROPOSED RESIDENTIAL DEVELOPMENT
TILLERMAN STAGE 1
PARK RIDGE ROAD, PARK RIDGE**

CLIENT: SHADFORTH CIVIL

CONSULTANT: COLLIERS

CONTRACTOR: SHADFORTH CIVIL

Revision	Date	Author	Reviewer	Description
0	19/6/23	R. Mitchel	M. Morrison	Issued for Comments
A	19/6/23	R. Mitchell	M. Morrison	Issue to Client

1.0 INTRODUCTION

1.1 General

This report presents results and documentation for the Level One Inspection and Testing of earthworks filling operations for the Proposed Residential Development, Tilleran Stage 1, Park Ridge Road, Park Ridge (The Site).

Qualtest Laboratory Pty Ltd was commissioned by Shadforth Civil (The Client) to provide Level 1 Earthworks Inspection and Testing services as defined in Section 8 of AS3798.

Filling operations covered by this report were constructed between 22nd February 2023 and 24th May 2023.

The purpose of Level 1 commission and this report is to provide an opinion that the earthworks operations carried out by the Client have been carried out in accordance with AS3798, relevant project specifications and Local Authority requirements as appropriate.

This report has been carried out in general accordance with the following: -

- AS3798-2007 - Guidelines on Earthwork for Commercial and Residential Development.
- Colliers Engineers Drawings and Notes on Drawings.
- Logan City Council Requirements.

This report does not cover underground services, trench backfill, pavements, retaining walls, filling outside areas shown on Figure 1 or any other works after 24th May 2023.

1.2 The Development

The development comprises of a 34-lot subdivision with associated infrastructure and underground services.

Earthworks to be constructed at the site is presented on Colliers drawings, Bulk Earthworks Layout Plan, Drawing 202, Revision 2 reproduced below as Figure 1 below. These plans are considered to be reasonable indication of the actual fill constructed during our involvement.

Figure 1: Bulk Earthworks Layout Sheet (Blue Shade is Fill)



2.0 WORKS AND SPECIFICATIONS

All filling operations at the Site are to be placed and compacted in accordance with the following: -

- AS3798 – Type 1 Earthworks Operations.
- Logan City Council Specifications.
- Density Ratio – 95% Standard

3.0 FILL FOUNDATION

Areas to be filled at the site were observed to be stripped of existing fill, vegetation, grass, redundant services, water affected ground and topsoil to depths exposing competent natural ground.

Compliance of the fill foundation and approval to commence filling was on the basis of: -

- Complete removal of existing fill.
- Adequate removal of topsoil and organics.
- Adequate removal of redundant service trenches.
- Compliant proof roll testing of the stripped surface using onsite heavy earthworks plant.

A picture of the stripped natural surface prior to filling is presented below.

Picture 1: View of the Stripping Operations



4.0 FILLING OPERATIONS

Fill at the site was sourced from onsite and included: -

- Onsite Cuts and Trench Spoil.

Materials used as fill can be broadly summarised as: -

- Onsite – Sandy Clay (CL / CI), low to medium plasticity fines, fine to medium sand, orange brown, red brown and moist.
- Onsite – Silty Clayey Sand (SM / SC) fine to medium sand, low plasticity fines, grey brown and moist.

Fill was constructed using the following plant: -

- Articulated Dump Trucks
- Pad Foot Roller
- Excavator
- Dozer
- Water Truck
- Grader

Fill was observed to be placed in layers within the capacity of the above plant, appropriately moisture conditioned and compacted using several passes.

To the extent that was reasonably practicable, fill materials visibly containing excessive amounts of silts or deleterious materials such as sticks, oversize particles were sorted to remove the contaminants prior to placement, or rejected for use. Some cobble sized particles may remain in the body of the fill, however, are unlikely to be in sufficient quantities to adversely affect the performance of the new fill. Sloping areas requiring filling were benched and continually keyed into the slope prior to and during fill placement.

A Picture of the filling operations is presented below.

Picture 2: View of Filling Operations



5.0 COMPACTION TESTING

Compaction testing was carried out on the compacted fill materials in accordance with Table 5.1 and 8.1 of AS3798 2007 and tested to AS1289 test methods. All test locations were selected by Qualtest at random and staggered over the fill area and depth. Test locations were not obtained by survey and on this basis, the locations should be considered as approximate only.

Compaction testing achieved the minimum required compaction specification of 95% Standard at the test locations. Areas where the compaction specification was not achieved were reworked and re-tested using random stratified location processes.

The location of the compaction tests and area of fill covered under this report are shown on the Site Plan contained in Appendix A. Compaction test reports are contained in Appendix B.

6.0 STATEMENT OF COMPLIANCE

Our representatives observed the relevant earthworks operations during our engagement including the stripped surface, new fill placement and compaction operations, and compaction testing.

As far as Qualtest could assess, the fill at The Site has been observed to be placed and compacted in accordance with the requirements outlined in Section 2.0.

The fill at The Site can be considered to be "Controlled" as defined in AS2870.

7.0 EXCLUSIONS

The compliance statement specifically excludes any topsoil, which may be placed for use as Lot dressing or any other subsequent earthworks after 24th May 2023. All trench backfill, landscaping fill, fill outside the area shown as Figure 1 and other fill placed without our knowledge is also excluded.

Assessments of batter stability, global stability, and material quality such as soaked CBR and site classifications are excluded from this commission. The stability of any fill batters in the long term must take account of the variable materials used for the construction of the fill platforms and all surface loads including traffic loads near the crest of all batters.

Our on-site attendance specifically excludes assessments of fill material quality and engineering properties that are outside the requirements of AS3798 - 2007, including soil or fill reactivity and soaked CBR values. We note that the fill materials comprise clay soils, which may result in unfavourable site classifications for individual lots and low subgrade design strengths for pavements.

Footings and ground slabs for any structures constructed over natural soils or controlled fill should be designed to accommodate the characteristic ground surface movements and settlement potential. Assessments of these design parameters are beyond the scope of this Report.

Controlled fill (Level 1 Fill) provides an overview that the Earthwork Specification has been met. There are instances where significant long-term settlements of controlled fill can occur. Large total and differential settlements can be expected where fill has been placed over soft and compressible soils and where the thickness of controlled fill varies significantly across a lot.

Should you require further information regarding the above please do not hesitate to contact this office.

Yours faithfully,



MICHAEL MORRISON

For and on behalf of

QUALTEST LABORATORY PTY LTD.

Appendix A – Site Plan and Compaction Test Locations

Appendix B – Compaction Test Reports



APPENDIX A

SITE PLAN AND COMPACTION TEST LOCATIONS



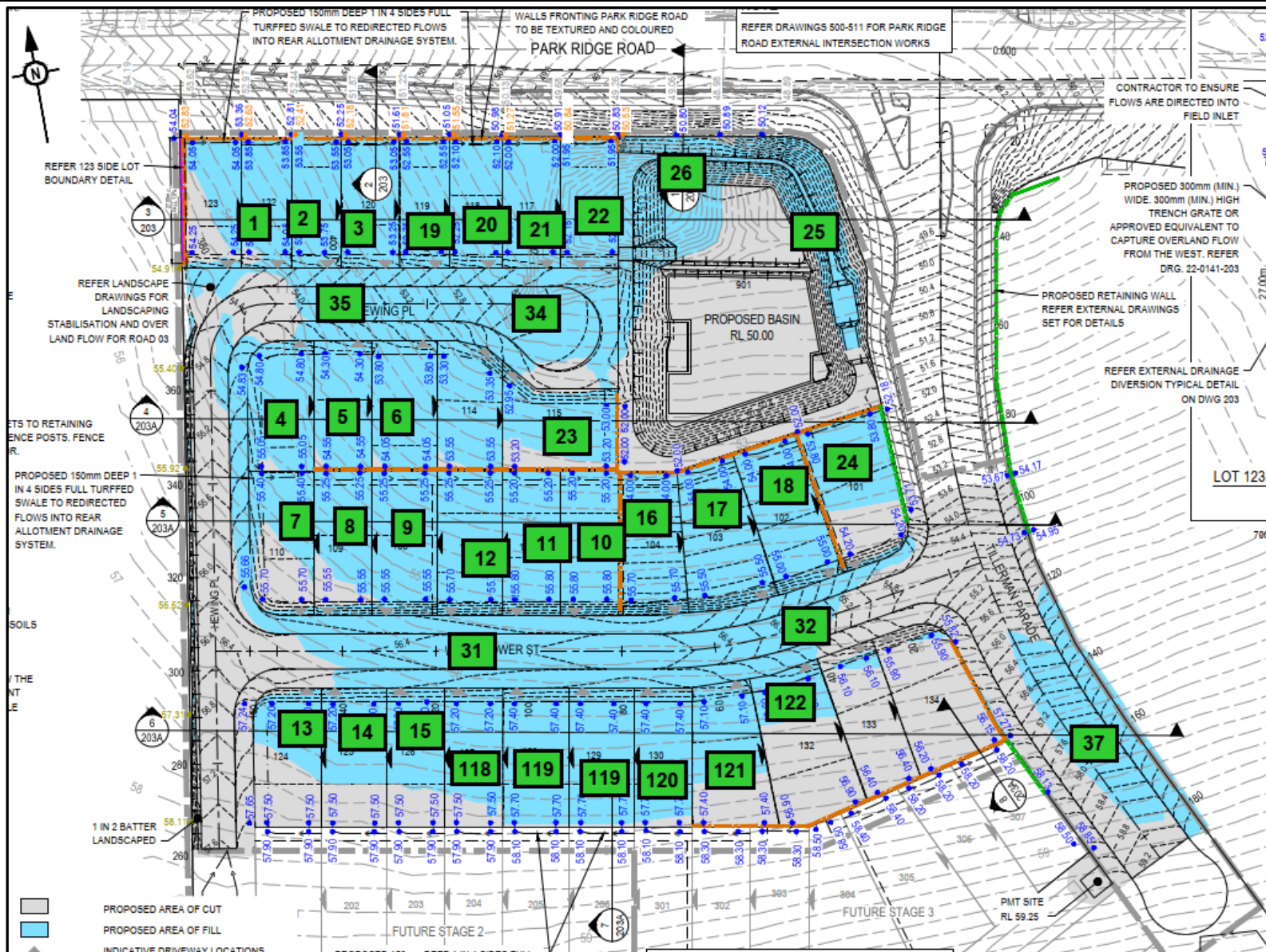
Qualtest Laboratory

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Est. 1987



CLIENT: SHADFORTH CIVIL

TITLE: APPROXIMATE FIELD DENSITY TEST LOCATIONS

DRAWING NO: 22-541-01

**LOCATION: TILLERMAN STAGE 1, PARK RIDGE ROAD,
PARK RIDGE**

DATE: 19th June 2023

PROJECT NO: 22-541

CHECKED BY: GG



APPENDIX B

COMPACTION TEST REPORTS

Material Test Report

Report Number: 22-541-1
Issue Number: 1
Date Issued: 17/02/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4440
Date Sampled: 10/02/2023
Dates Tested: 10/02/2023 - 15/02/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Tillerman, Park Ridge
Material: General Fill
Material Source: Onsite



Qualtest Laboratory Pty Ltd
 Qualtest Laboratory Pty Limited
 2 / 40 Boyland Ave Cooper Plains QLD 4108
 Phone: 0417 011 515
 Email: rhys@qualtestgeo.com

Accredited for compliance with ISO/IEC 17025 - Testing



Rhys Mitchell

Approved Signatory: Rhys Mitchell
Field Technician

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	S4440A	S4440B	S4440C	S4440D	S4440E	S4440F
Test Number	1	2	3	4	5	6
Date Tested	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023	10/02/2023
Time Tested	10:10	10:06	10:10	10:17	10:25	10:33
Test Request #/Location	Lot 122	Lot 121	Lot 120	Lot 111	Lot 112	Lot 113
Line / Offset	O/S SW CNR	O/S SW CNR	O/S SW CNR	O/S SW CNR	O/S SW CNR	O/S SW CNR
Offset	10m North, 6m East	10m North, 5m East	10m North, 5m East	10m North, 5m East	10m North, 5m East	10m North, 5m East
Elevation (m)	RL: 53.50	RL: 53.21	RL: 52.50	RL: 54.42	RL: 54.00	RL: 53.20
Soil Description	Clay, Brown	Clay, Brown	Clay, Brown	Clay, Brown	Clay, Brown	Clay, Brown
Test Depth (mm)	150	150	150	150	150	150
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	1.94	2.04	1.89	1.95	1.98	1.98
Field Moisture Content %	19.1	18.3	18.0	22.3	16.8	20.5
Field Dry Density (FDD) t/m ³	1.63	1.73	1.60	1.60	1.70	1.64
Peak Converted Wet Density t/m ³	1.95	1.93	1.82	1.98	1.97	1.91
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Moisture Variation (Wv) %	1.5	2.5	5.0	0.0	2.0	1.0
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	99.5	106.0	103.5	98.5	100.5	104.0
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: 22-541-2
Issue Number: 1
Date Issued: 17/02/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4454
Date Sampled: 13/02/2023 8:30
Dates Tested: 13/02/2023 - 13/02/2023
Sampling Method: AS 1289.1.3.1 3.1.4 (b) - Open-drive samplers - piston samplers - floating type
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Tillerman, Park Ridge
Material: General Fill
Material Source: Onsite



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Rhys Mitchell

Approved Signatory: Rhys Mitchell
Field Technician

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4454A	S4454B	S4454C
Test Number	7	8	9
Date Tested	13/02/2023	13/02/2023	13/02/2023
Time Tested	08:30	08:40	08:48
Test Request #/Location	Lot 110	Lot 109	Lot 108
Line / Offset	O/S NE CNR	O/S NE CNR	O/S NE CNR
Offset	6m South, 4m West	9m South, 4m West	10m South, 5m West
Elevation (m)	RL: 55.40	RL: 49.80	RL: 49.80
Soil Description	Sandy CLAY, Brown	Sandy CLAY, Brown	Sandy CLAY, Brown
Test Depth (mm)	150	150	150
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	2.00	2.00	1.99
Field Moisture Content %	17.6	16.2	16.2
Field Dry Density (FDD) t/m ³	1.70	1.72	1.71
Peak Converted Wet Density t/m ³	1.97	1.96	1.96
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	2.5	2.5	2.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	102.0	102.0	102.0
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: 22-541-4
Issue Number: 1
Date Issued: 23/02/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4534
Date Sampled: 17/02/2023 13:30
Dates Tested: 17/02/2023 - 20/02/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Tillerman, Park Ridge
Material: General Fill
Material Source: Onsite



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Approved Signatory: Greg Gibson
ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	S4534A	S4534B	S4534C
Sample Number	S4534A	S4534B	S4534C
Test Number	10	11	12
Date Tested	17/02/2023	17/02/2023	17/02/2023
Time Tested	13:30	13:40	13:52
Test Request #/Location	Lot 105	Lot 106	Lot 107
Line / Offset	O/S NW CNR	O/S NW CNR	O/S NW CNR
Offset	8m South, 4m East	8m South, 4m East	8m South, 4m East
Elevation (m)	RL 55.00	RL 54.35	RL 54.00
Soil Description	Silty Sandy CLAY, brown	Silty Sandy CLAY, brown	Silty SAND, brown
Test Depth (mm)	150	150	150
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	2.08	1.96	2.11
Field Moisture Content %	11.4	17.2	11.6
Field Dry Density (FDD) t/m ³	1.86	1.67	1.89
Peak Converted Wet Density t/m ³	2.12	2.01	2.16
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	2.0	2.5	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	97.5	97.5	98.0
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: 22-541-5
Issue Number: 1
Date Issued: 07/03/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4608
Date Sampled: 22/02/2023
Dates Tested: 22/02/2023 - 01/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Tillerman, Park Ridge
Material: General Fill
Material Source: Onsite



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Rhys Mitchell

Approved Signatory: Rhys Mitchell
Field Technician

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4608A	S4608B	S4608C
Test Number	13	14	15
Date Tested	22/02/2023	22/02/2023	22/02/2023
Time Tested	13:30	13:40	13:50
Test Request #/Location	Lot 124	Lot 125	Lot 126
Line / Offset	O/S NE CNR	O/S NE CNR	O/S NE CNR
Offset	6m South, 4m West	8m South, 5m West	10m South, 4m West
Elevation (m)	RL: 58.80	RL: 58.70	RL: 58.80
Soil Description	Sandy CLAY, brown	Sandy CLAY, brown	Sandy CLAY, brown
Test Depth (mm)	150	150	150
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	2.01	2.03	2.01
Field Moisture Content %	0.8	14.5	16.7
Field Dry Density (FDD) t/m ³	1.99	1.77	1.72
Peak Converted Wet Density t/m ³	2.10	2.13	2.10
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	0.5	0.0	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	96.0	95.0	95.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

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

Material Test Report

Report Number: 22-541-7
Issue Number: 1
Date Issued: 07/03/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4760
Dates Tested: 03/03/2023 - 04/03/2023
Location: Tillerman, Park Ridge



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Rhys Mitchell

Approved Signatory: Rhys Mitchell
 Field Technician

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4760A	S4760B	S4760C
Test Number	19	20	21
Date Tested	03/03/2023	03/03/2023	03/03/2023
Time Tested	12:00	12:07	12:11
Test Request #/Location	Lot 119	Lot 118	Lot 117
Line / Offset	O/S NW CNR	O/S NW CNR	O/S NW CNR
Offset	8m South, 4m East	10m South, 3m East	7m South, 4m East
Layer / Reduced Level	0.75m Below FSL	0.75m Below FSL	0.75m Below FSL
Soil Description	Sandy CLAY, Brown	Sandy CLAY, Brown	Sandy CLAY, Brown
Test Depth (mm)	150	150	150
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	2.07	1.99	1.99
Field Moisture Content %	11.9	12.4	11.3
Field Dry Density (FDD) t/m ³	1.85	1.77	1.79
Peak Converted Wet Density t/m ³	1.98	1.98	2.00
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	3.5	4.0	4.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	104.5	100.5	100.0
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: 22-541-8
Issue Number: 1
Date Issued: 14/03/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4655
Date Sampled: 27/02/2023 7:30
Dates Tested: 27/02/2023 - 04/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Tillerman, Park Ridge
Material: General Fill
Material Source: Onsite



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Rhys Mitchell

Approved Signatory: Rhys Mitchell
Field Technician

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

	S4655A	S4655B	S4655C
Sample Number	16	17	18
Test Number	27/02/2023	27/02/2023	27/02/2023
Date Tested	10:20	10:28	10:35
Time Tested	Lot 104	Lot 103	Lot 102
Test Request #/Location	O/S NW CNR	O/S NW CNR	O/S NW CNR
Line / Offset	7m South, 4m East	8m South, 4m East	8m South, 3m East
Offset	0.5m Below FSL	0.5m Below FSL	0.5m Below FSL
Layer / Reduced Level	Sandy CLAY, brown	Sandy CLAY, brown	Silty Sand, brown
Soil Description	150	150	150
Test Depth (mm)	19.0	19.0	19.0
Sieve used to determine oversize (mm)	0	0	0
Percentage of Wet Oversize (%)	2.01	2.02	2.02
Field Wet Density (FWD) t/m ³	14.7	15.8	15.2
Field Moisture Content %	1.75	1.75	1.75
Field Dry Density (FDD) t/m ³	2.03	2.04	2.03
Peak Converted Wet Density t/m ³	**	**	**
Adjusted Peak Converted Wet Density t/m ³	2.0	2.0	2.0
Moisture Variation (Wv) %	**	**	**
Adjusted Moisture Variation %	99.0	99.5	99.5
Hilf Density Ratio (%)	Standard	Standard	Standard
Compaction Method	**	**	**
Report Remarks			

Moisture Variation Note:

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

Material Test Report

Report Number: 22-541-9
Issue Number: 1
Date Issued: 15/03/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4773
Dates Tested: 06/03/2023 - 07/03/2023
Location: Tillerman, Park Ridge



Qualtest Laboratory Pty Ltd
 Qualtest Laboratory Pty Limited
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Accredited for compliance with ISO/IEC 17025 - Testing



Rhys Mitchell

Approved Signatory: Rhys Mitchell
 Field Technician

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4773A	S4773B	S4773C
Test Number	22	23	24
Date Tested	06/03/2023	06/03/2023	06/03/2023
Time Tested	13:00	13:10	13:20
Test Request #/Location	Lot 116	Lot 115	Lot 101
Line / Offset	O/S NW CNR	O/S NW CNR	O/S NW CNR
Offset	10m South, 4m East	8m South, 4m East	6m South, 4m East
Layer / Reduced Level	0.7m Below FSL	0.3m Below FSL	FSL
Soil Description	Sandy Clay, Brown	Sandy Clay, Brown	Sandy Clay, Brown
Test Depth (mm)	150	150	150
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	2.06	1.96	1.95
Field Moisture Content %	20.8	20.5	19.0
Field Dry Density (FDD) t/m ³	1.71	1.63	1.64
Peak Converted Wet Density t/m ³	2.09	2.02	1.97
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Variation (Wv) %	2.5	2.5	3.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	98.5	97.5	99.5
Compaction Method	Standard	Standard	Standard
Report Remarks	**	**	**

Moisture Variation Note:

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

Material Test Report

Report Number: 22-541-10
Issue Number: 1
Date Issued: 22/03/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4874
Date Sampled: 10/03/2023 9:00
Dates Tested: 10/03/2023 - 13/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Tillerman, Park Ridge
Material: Embankment Fill
Material Source: Onsite



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 2 / 40 Boyland Ave Cooper Plains QLD 4108
 Phone: 0417 011 515
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Approved Signatory: Greg Gibson
ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4874A	S4874B	
Test Number	25	26	
Date Tested	10/03/2023	10/03/2023	
Time Tested	09:00	09:10	
Test Request #/Location	Proposed Basin	Proposed Basin	
Line / Offset	O/S NE CNR	O/S NE CNR	
Offset	10m South, 15m East	15m South, 120m East	
Layer / Reduced Level	Final Level	Final Level	
Soil Description	Sandy CLAY, Brown	Sandy CLAY, Brown	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	
Field Wet Density (FWD) t/m ³	2.04	1.99	
Field Moisture Content %	15.0	15.6	
Field Dry Density (FDD) t/m ³	1.78	1.72	
Peak Converted Wet Density t/m ³	1.98	2.05	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	3.0	3.0	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	103.0	97.0	
Compaction Method	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: 22-541-11
Issue Number: 1
Date Issued: 23/03/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4972
Date Sampled: 16/03/2023 7:00
Dates Tested: 16/03/2023 - 22/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Tillerman, Park Ridge
Material: Embankment Fill
Material Source: Onsite



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Approved Signatory: Greg Gibson
ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4972A	S4972B	
Test Number	31	32	
Date Tested	16/03/2023	16/03/2023	
Time Tested	07:00	07:08	
Test Request #/Location	Watertower Street	Watertower Street	
Chainage (m)	CH 110	CH 40	
Location Offset (m)	1m Left of CL	CL	
Layer / Reduced Level	0.4m Below FSL	0.4m Below FSL	
Soil Description	Clay, brown/red some rock	Clay, brown/red some rock	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	
Field Wet Density (FWD) t/m ³	2.01	2.05	
Field Moisture Content %	16.3	14.1	
Field Dry Density (FDD) t/m ³	1.73	1.79	
Peak Converted Wet Density t/m ³	1.99	2.02	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	1.5	2.0	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	101.5	101.0	
Compaction Method	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: 22-541-13
Issue Number: 1
Date Issued: 04/04/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 4983
Date Sampled: 17/03/2023 8:00
Dates Tested: 17/03/2023 - 22/03/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Tillerman, Park Ridge
Material: Embankment Fill
Material Source: Onsite



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Approved Signatory: Greg Gibson
ql-greg

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S4983A	S4983B	
Test Number	34	35	
Date Tested	17/03/2023	17/03/2023	
Time Tested	08:00	08:10	
Test Request #/Location	Hewing Place	Hewing Place	
Chainage (m)	CH 400	CH 440	
Location Offset (m)	CL	1m Left of CL	
Layer / Reduced Level	0.4m Below FSL	0.4m Below FSL	
Soil Description	Sandy CLAY, Brown Mottled Grey	Sandy CLAY, Brown Mottled Grey	
Test Depth (mm)	150	150	
Sieve used to determine oversize (mm)	19.0	19.0	
Percentage of Wet Oversize (%)	0	0	
Field Wet Density (FWD) t/m ³	2.04	2.06	
Field Moisture Content %	13.8	14.1	
Field Dry Density (FDD) t/m ³	1.79	1.80	
Peak Converted Wet Density t/m ³	2.12	2.12	
Adjusted Peak Converted Wet Density t/m ³	**	**	
Moisture Variation (Wv) %	2.5	1.5	
Adjusted Moisture Variation %	**	**	
Hilf Density Ratio (%)	96.0	97.0	
Compaction Method	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: 22-541-16
Issue Number: 1
Date Issued: 19/04/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 5041
Date Sampled: 21/03/2023 10:30
Dates Tested: 21/03/2023 - 18/04/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Tillerman, Park Ridge
Material: Embankment Fill
Material Source: Onsite



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Approved Signatory: Greg Gibson
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NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	S5041A		
Test Number	37		
Date Tested	21/03/2023		
Time Tested	10:30		
Test Request #/Location	Tillerman Parade		
Chainage (m)	CH 160		
Location Offset (m)	1m Left of CL		
Layer / Reduced Level	0.4m Below Subgrade		
Soil Description	Clay, brown mottled red/grey		
Test Depth (mm)	150		
Sieve used to determine oversize (mm)	19.0		
Percentage of Wet Oversize (%)	0		
Field Wet Density (FWD) t/m ³	2.04		
Field Moisture Content %	15.2		
Field Dry Density (FDD) t/m ³	1.77		
Peak Converted Wet Density t/m ³	2.10		
Adjusted Peak Converted Wet Density t/m ³	**		
Moisture Variation (Wv) %	0.5		
Adjusted Moisture Variation %	**		
Hilf Density Ratio (%)	97.0		
Compaction Method	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: 22-541-29
Issue Number: 1
Date Issued: 19/06/2023
Client: SHADFORTH CIVIL PTY LTD
 99 SANDALWOOD LANE, FOREST GLEN QLD 4556
Contact: MITCH TRONC
Project Number: 22-541
Project Name: PROPOSED RESIDENTIAL DEVELOPMENT
Project Location: 133-159 PARK RIDGE ROAD, PARK RIDGE
Work Request: 5846
Date Sampled: 24/05/2023
Dates Tested: 24/05/2023 - 14/06/2023
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Preparation Method: AS 1289.1.1 - Sampling and preparation of soils
Specification: 95% Standard
Site Selection: Selected by GTA
Location: Subgrade - Tillerman Road - Park Ridge
Material: General Fill
Material Source: Onsite



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Rhys Mitchell

Approved Signatory: Rhys Mitchell
Field Technician

NATA Accredited Laboratory Number: 2316

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1						
Sample Number	S5846A	S5846B	S5846C	S5846D	S5846E	S5846F
Test Number	118	119	120	121	122	123
Date Tested	24/05/2023	24/05/2023	24/05/2023	24/05/2023	24/05/2023	24/05/2023
Time Tested	09:49	10:00	10:10	10:20	10:30	10:40
Test Request #/Location	Lot 127	Lot 128	Lot 129	Lot 130	Lot 131	Lot 132
Easting	Centre of Lot	Centre of Lot	Centre of Lot	Centre of Lot	Centre of Lot	3m from North Boundary
Northing	**	**	**	**	**	6m from West Boundary
Layer / Reduced Level	Final Level	Final Level	Final Level	Final Level	Final Level	Final Level
Thickness of Layer (mm)	175	175	175	175	175	175
Soil Description	Sandy CLAY	Sandy CLAY	Sandy CLAY	Sandy CLAY	Sandy CLAY	Sandy CLAY
Test Depth (mm)	150	150	150	150	150	150
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	2.09	2.16	2.08	2.09	2.14	1.96
Field Moisture Content %	17.3	14.4	18.5	17.4	16.3	30.6
Field Dry Density (FDD) t/m ³	1.78	1.89	1.76	1.78	1.84	1.50
Peak Converted Wet Density t/m ³	2.08	2.11	2.04	2.09	2.02	1.95
Adjusted Peak Converted Wet Density t/m ³	**	**	**	**	**	**
Moisture Variation (Wv) %	2.5	3.0	5.0	1.0	2.5	3.5
Adjusted Moisture Variation %	**	**	**	**	**	**
Hilf Density Ratio (%)	100.5	102.5	102.0	100.0	106.0	100.5
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