

ABN 91 006 855 689

SOIL TESTING & GEOTECHNICAL CONSULTANTS

TS ACN 006 855 689

LEVEL 1 REPORT

ON THE FILLING

AT

HONOUR VILLAGE ESTATE STAGE 1 CLYDE NORTH

2210348-91

TABLE OF CONTENTS

1. SI	ITE D	DESCRIPTION:	3
2. PF	REVI	OUS GEOTECHNICAL INVESTIGATIONS ON THE SITE:	3
3. D0	OCUI	MENTS SUPPLIED:	4
4. SI	ITE P	PREPARATION REQUIREMENTS:	4
4.1	1 S	Site Stripping Requirements	4
4.2	2 S	Subgrade Assessment Requirements	4
		IREMENTS FOR THE PLACEMENT OF COMPACTED EARTH	4
5.1	1 L	ayer Thickness	4
5.2	2 D	Density Requirements	4
5.3	3 N	loisture Content Requirements	4
5.4	4 T	ype of Tests Required	4
5.5	5 N	Number of Test Required	4
6. T⊦	HE PI	ERIOD OVER WHICH THE WORK WAS CARRIED OUT	4
7. EC	QUIP	MENT USED:	5
8. EA	ARTH	HWORKS SUMMARY:	5
8.1	1 D	Description of Earthworks Undertaken	5
8.2	2 C	Observation of Stripping and Site Preparation	5
8.3	3 C	Observation of Fill Materials	5
8.4	4 T	ests Carried Out	5
8.5	5 R	Results of Testing	5
9. CO	ONCI	LUSION:	6

APPENDIX A

TEST REPORTS & PLANS

- **REPORT No** : 2210348-91
 - CLIENT : Todd Hyland Senior Development Manager todd.hyland@frasersproperty.com.au c/- Australand Residential No 156 Pty Ltd PO Box 3307 Rhodes NSW 2138
- AUTHORIZED BY : Mr Todd Hyland
- **PROJECT LOCATION** : Honour Village Estate Stage 1, CLYDE NORTH
- **COMMISSION** : Carry out all appropriate inspections and testing at the site to ensure that the fill is placed in accordance with the project specifications. At the end of the works, compile a report LEVEL ONE TYPE REPORT AS PER SECTION 8 OF AS3798 setting out the findings of all inspections, instructions issued and test results, including any failure results and what action was taken to rectify any failure.

1. SITE DESCRIPTION:

Stripping and placement of compacted fill in Stage 1.

2. PREVIOUS GEOTECHNICAL INVESTIGATIONS ON THE SITE:

Not Supplied

3. DOCUMENTS SUPPLIED:

Reeds Consulting - Site Plan - Ref: 22344P, Version N

4. SITE PREPARATION REQUIREMENTS:

4.1 Site Stripping Requirements

Fill area to be stripped of vegetation and topsoil prior to filling.

4.2 Subgrade Assessment Requirements

Any soft, weak or unstable areas of subgrade exposed to be removed.

5. REQUIREMENTS FOR THE PLACEMENT OF COMPACTED EARTH FILL:

- 5.1 **Layer Thickness** Fill shall be placed in 300mm compacted layers.
- 5.2 **Density Requirements** 95% Standard compaction
- 5.3 **Moisture Content Requirements** No moisture requirements specified.
- 5.4 **Type of Tests Required** Compaction (AS1289 5.7.1 & 2.1.1)
- 5.5 **Number of Test Required** Compaction: Minimum of 1 test per 500m³.

6. THE PERIOD OVER WHICH THE WORK WAS CARRIED OUT

Inspections and testing of the project was carried out between 31/10/2019 to 20/11/2019.

7. EQUIPMENT USED:

Excavator Pad Foot Roller Compactor Dump Truck Water Cart

8. EARTHWORKS SUMMARY:

8.1 Description of Earthworks Undertaken

Fill area was backfilled and compacted with onsite Pad Foot Roller or Compactor in 300mm layers.

8.2 **Observation of Stripping and Site Preparation**

Fill areas observed were excavated to the naturally occurring silty CLAY prior to the placement of fill.

8.3 **Observation of Fill Materials**

The fill material was a site derived silty CLAY

8.4 Tests Carried Out

A total of 5 compaction tests (Hilf Rapid Method) were undertaken on the compacted earth fill of which no test failed to achieve the specified compaction requirements.

8.5 **Results of Testing**

The compaction results show that compacted fill was placed and compacted at a density between 98.5% and 100.0% of AS1289 5.7.1 Standard Compaction.

9. CONCLUSION:

Civiltest carried out supervision, inspections and testing on this project in a manner that would allow this level one type report to be completed as set out in Section 8 of AS3798 "Guidelines on earthworks for commercial and residential developments".

With the observations made during the works and the results of tests carried out, it has been concluded, as far as can be determined, that the contractor Bayport Civil Pty Ltd has met the requirements of the project.

Phil Morgans CIVILTEST PTY LTD

15 June 2022

REF: PM/ik

APPENDIX A

TEST REPORTS & PLAN



Report Number:	1190228-117
Issue Number:	2 - This version supersedes all previous issues
Reissue Reason:	Plan Added
Date Issued:	07/11/2019
Client:	Australand Residential No 156 Pty Ltd
	Level 9, 484 St Kilda Road, MELBOURNE, VIC 3004,
Project Number:	1190228
Project Name:	HONOUR VILLAGE WETLANDS STAGE 2, CLYDE NORTH
Project Location:	HONOUR VILLAGE WETLANDS STAGE 2, CLYDE NORTH
Work Request:	4633
Date Sampled:	01/11/2019 1:00
Dates Tested:	01/11/2019 - 06/11/2019
Sampling Method:	AS1289 1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification:	Minimum 95% Standard Compaction



Civiltest Pty Ltd Mitcham Laboratory Unit 7/38 Thornton Crescent Mitcham Vic 3132 Phone: (03) 9874 5844 Email: scott.flood@civiltest.com.au Accredited for compliance with ISO/IEC 17025 - Testing

DTECHNICAL CONSULTANTS

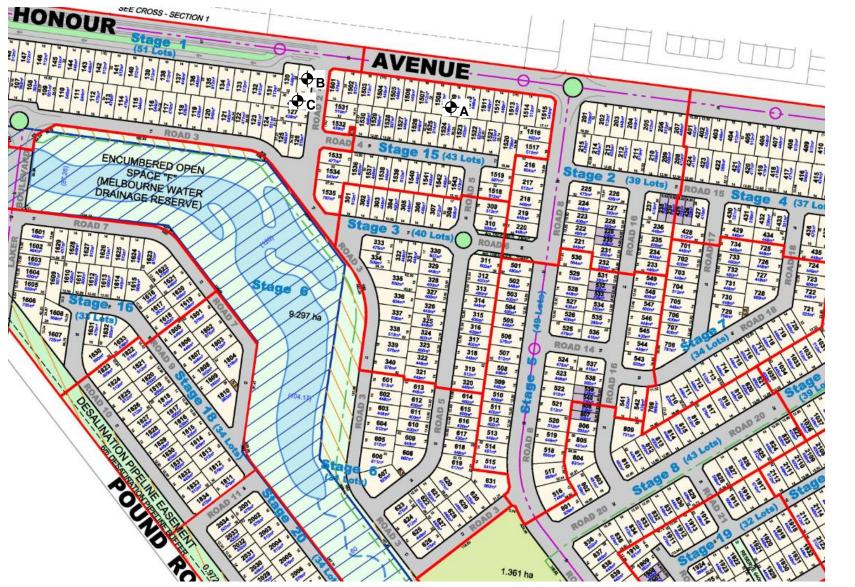
Approved Signatory: Scott Flood WORLD RECOGNISED Laboratory Manager NATA Accredited Laboratory Number: 790

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	192-4633A	192-4633B	192-4633C
Date Tested	01/11/2019	01/11/2019	01/11/2019
Time Tested	01:15	02:00	03:00
Test Request #/Location	Lot 1509	Lot 129	Lot 128
Chainage (m)	**	**	**
Location Offset (m)	**	**	**
Layer / Reduced Level	1m Below F.S	750mm Below F.S	450mm Below F.S
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY sandy silty	CLAY sandy silty	CLAY sandy silty
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0.0	0.0	0.0
Field Wet Density (FWD) t/m ³	2.00	1.99	2.00
Field Moisture Content %	29.8	27.5	29.3
Field Dry Density (FDD) t/m ³	1.54	1.56	1.54
Peak Converted Wet Density t/m ³	2.01	2.01	2.01
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Ratio % (AS 1289.5.4.1)	107.5	109.0	107.5
Adjusted Moisture Ratio % (AS 1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	-2.0	-2.0	-2.0
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	99.5	99.0	99.0
Compaction Method	Standard	Standard	Standard

Moisture Variation Note:

Report No: 1190228-117 Plan 1 of 1

NOT TO SCALE



Denotes Test Locations



GEOTECHNICAL CONSULTANTS Civiltest Pty Ltd Mitcham Laboratory

Damant Number	4400000 440
Report Number:	1190228-118
Issue Number:	2 - This version supersedes all previous issues
Reissue Reason:	Plan added
Date Issued:	07/11/2019
Client:	Australand Residential No 156 Pty Ltd
	Level 9, 484 St Kilda Road, MELBOURNE, VIC 3004,
Project Number:	1190228
Project Name:	HONOUR VILLAGE WETLANDS STAGE 2, CLYDE NORTH
Project Location:	HONOUR VILLAGE WETLANDS STAGE 2, CLYDE NORTH
Work Request:	4619
Date Sampled:	31/10/2019 7:30
Dates Tested:	31/10/2019 - 01/11/2019
Sampling Method:	AS1289 1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification:	Minimum 95% Standard Compaction

Unit 7/38 Thornton Crescent Mitcham Vic 3132 Phone: (03) 9874 5844 Email: scott.flood@civiltest.com.au Accredited for compliance with ISO/IEC 17025 - Testing

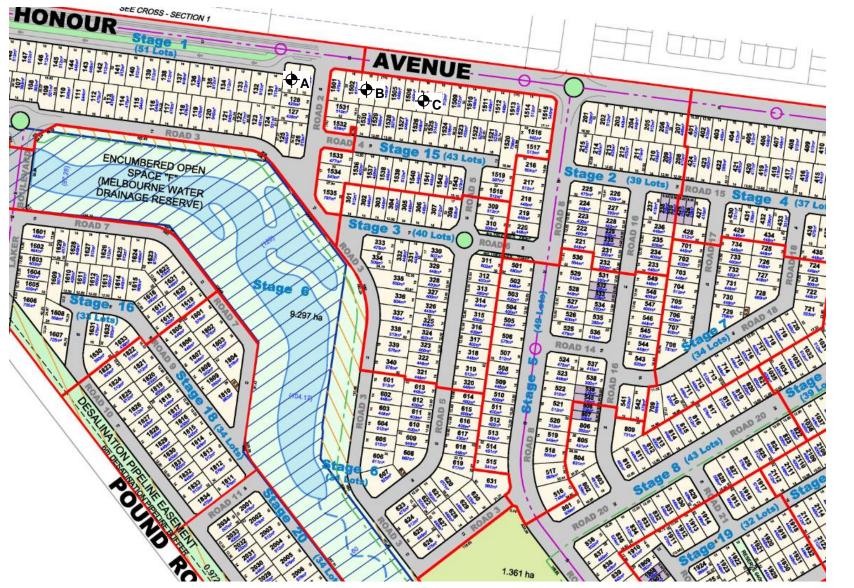
Approved Signatory: Scott Flood Accreditation NATA Accredited Laboratory Number: 790

Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1			
Sample Number	192-4619A	192-4619B	192-4619C
Date Tested	31/10/2019	31/10/2019	31/10/2019
Time Tested	02:00	02:10	02:15
Test Request #/Location	Lot 130	Lot 1503	Lot 1507
Chainage (m)	**	**	**
Location Offset (m)	**	**	**
Layer / Reduced Level	1.2m Below F.S	1.0m Below F.S	1.0m Below F.S
Thickness of Layer (mm)	300	300	300
Soil Description	CLAY sandy silty	CLAY sandy silty	CLAY sandy silty
Test Depth (mm)	275	275	275
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Percentage of Wet Oversize (%)	0.0	0.0	0.0
Field Wet Density (FWD) t/m ³	1.99	2.00	2.00
Field Moisture Content %	27.0	28.1	27.3
Field Dry Density (FDD) t/m ³	1.57	1.56	1.58
Peak Converted Wet Density t/m ³	2.01	2.00	2.01
Adjusted Peak Converted Wet Density t/m ³	**	**	**
Moisture Ratio % (AS 1289.5.4.1)	97.5	98.5	97.5
Adjusted Moisture Ratio % (AS 1289.5.4.1)	**	**	**
Moisture Variation (Wv) %	0.5	0.5	0.5
Adjusted Moisture Variation %	**	**	**
Hilf Density Ratio (%)	99.0	100.0	100.0
Compaction Method	Standard	Standard	Standard
Maiotura Variation Nata			

Moisture Variation Note:

Report No: 1190228-118 Plan 1 of 1

NOT TO SCALE



Denotes Test Locations



Report Number:	1190228-128
Issue Number:	2 - This version supersedes all previous issues
Reissue Reason:	Plan Added
Date Issued:	21/11/2019
Client:	Australand Residential No 156 Pty Ltd
	Level 9, 484 St Kilda Road, MELBOURNE, VIC 3004,
Project Number:	1190228
Project Name:	HONOUR VILLAGE WETLANDS STAGE 2, CLYDE NORTH
Project Location:	HONOUR VILLAGE WETLANDS STAGE 2, CLYDE NORTH
Work Request:	4742
Date Sampled:	18/11/2019 7:15
Dates Tested:	18/11/2019 - 19/11/2019
Sampling Method:	AS1289 1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification:	Minimum 95% Standard Compaction



OTECHNICAL CONSULTANTS

Approved Signatory: Scott Flood WORLD RECOGNISED Laboratory Manager NATA Accredited Laboratory Number: 790

NATA

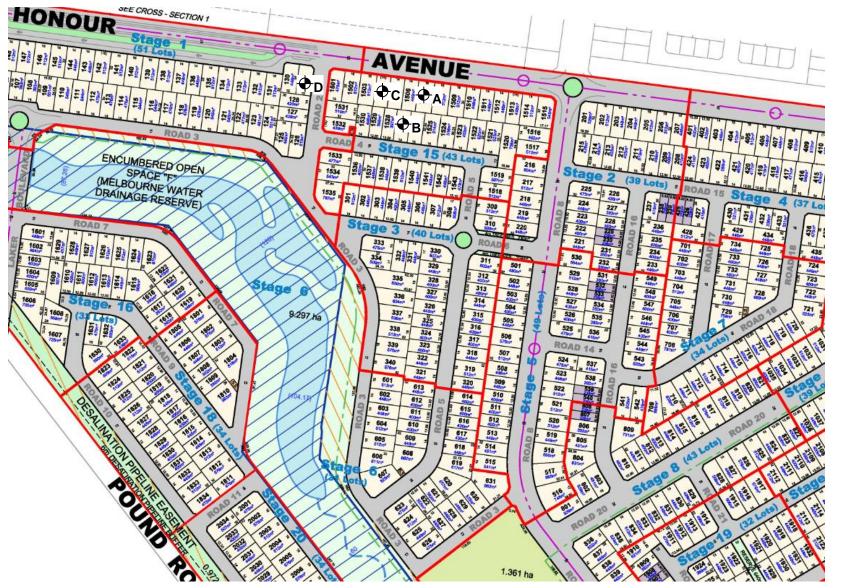
2

Compaction Control AS 1289 5.7.1 & 5.8.	1 & 2.1.1			
Sample Number	192-4742A	192-4742B	192-4742C	192-4742D
Date Tested	18/11/2019	18/11/2019	18/11/2019	18/11/2019
Time Tested	07:45	07:50	08:00	08:05
Test Request #/Location	Lot 1507	Lot 1527	Lot 1504	Lot 129
Chainage (m)	**	**	**	**
Location Offset (m)	**	**	**	**
Layer / Reduced Level	900mm Below F.S	1.2m Below F.S	1.2m Below F.S	400mm Below F.S
Thickness of Layer (mm)	300	300	300	300
Soil Description	CLAY sandy silty	CLAY sandy silty	CLAY sandy silty	CLAY sandy silty
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	0.0	0.0	0.0
Field Wet Density (FWD) t/m ³	2.01	2.03	2.02	2.03
Field Moisture Content %	26.1	24.6	24.9	26.7
Field Dry Density (FDD) t/m ³	1.60	1.63	1.61	1.60
Peak Converted Wet Density t/m ³	2.02	2.03	2.02	2.03
Adjusted Peak Converted Wet Density	**	**	**	**
Moisture Ratio % (AS 1289.5.4.1)	98.0	98.0	97.5	98.0
Adjusted Moisture Ratio % (AS 1289.5.4.1)	**	**	**	**
Moisture Variation (Wv) %	0.5	0.5	0.5	0.5
Adjusted Moisture Variation %	**	**	**	**
Hilf Density Ratio (%)	99.5	100.0	100.0	100.0
Compaction Method	Standard	Standard	Standard	Standard

Moisture Variation Note:

Report No: 1190228-128 Plan 1 of 1

NOT TO SCALE



Denotes Test Locations



Report Number:	1190228-130
Issue Number:	2 - This version supersedes all previous issues
Reissue Reason:	Plan Added
Date Issued:	22/11/2019
Client:	Australand Residential No 156 Pty Ltd
	Level 9, 484 St Kilda Road, MELBOURNE, VIC 3004,
Project Number:	1190228
Project Name:	HONOUR VILLAGE WETLANDS STAGE 2, CLYDE NORTH
Project Location:	HONOUR VILLAGE WETLANDS STAGE 2, CLYDE NORTH
Work Request:	4766
Date Sampled:	20/11/2019 7:15
Dates Tested:	20/11/2019 - 21/11/2019
Sampling Method:	AS1289 1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification:	Minimum 95% Standard Compaction



Approved Signatory: Scott Flood ACCREDITATION NATA Accredited Laboratory Number: 790

NATA

2

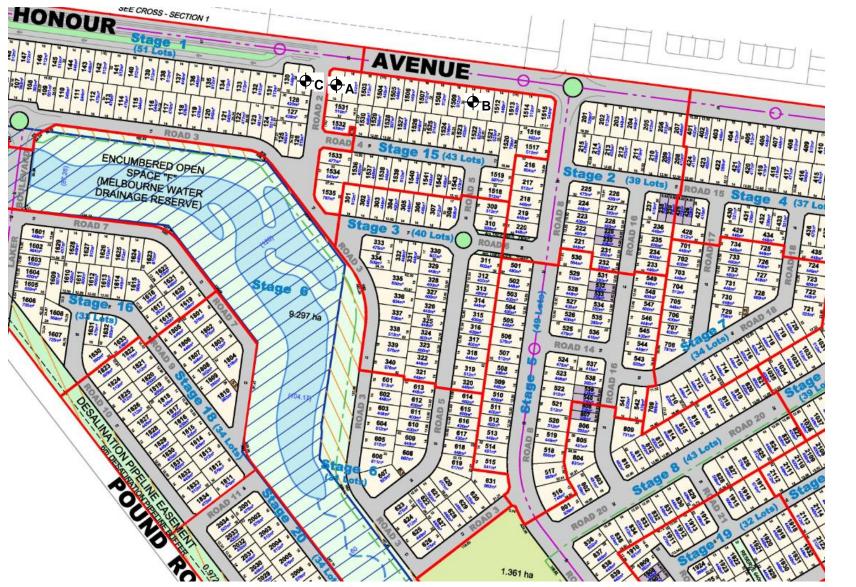
Compaction Control AS 1289 5.7.1 & 5.8.1 & 2.1.1

Compaction Method	Standard	Standard	Standard
Hilf Density Ratio (%)	98.5	98.5	98.5
Adjusted Moisture Variation %	**	**	**
Moisture Variation (Wv) %	0.5	0.5	1.0
Adjusted Moisture Ratio % (AS 1289.5.4.1)	**	**	**
Moisture Ratio % (AS 1289.5.4.1)	97.5	97.5	97.0
Adjusted Peak Converted Wet Density	**	**	**
Peak Converted Wet Density t/m ³	2.01	2.02	2.03
Field Dry Density (FDD) t/m ³	1.53	1.55	1.57
Field Moisture Content %	29.0	28.0	26.9
Field Wet Density (FWD) t/m ³	1.98	1.98	2.00
Percentage of Wet Oversize (%)	0.0	0.0	0.0
Sieve used to determine oversize (mm)	19.0	19.0	19.0
Test Depth (mm)	275	275	275
Soil Description	CLAY sandy silty	CLAY sandy silty	CLAY sandy silty
Thickness of Layer (mm)	300	300	300
Layer / Reduced Level	800mm Below F.S	1.2m Below F.S	400 Below F.S
Location Offset (m)	**	**	**
Chainage (m)	**	**	**
Test Request #/Location	Lot 1501	Lot 1510	Lot 128
Time Tested	08:00	08:10	08:15
Date Tested	20/11/2019	20/11/2019	20/11/2019
Sample Number	192-4766A	192-4766B	192-4766C

Moisture Variation Note:

Report No: 1190228-130 Plan 1 of 1

NOT TO SCALE



Denotes Test Locations