Level One Inspection and Testing

Project: Riverview Subdivision Stage 2
REPORT NUMBER: AGTE21010

Prepared for:

Client: NEO Infrastructure

14 January 2021

| Geotechnical Investigation and Design | Pavement Investigation and Design | Residential | Environmental Assessment | Earthworks Specification's | Level 1 Supervision | Retaining Walls | Slope Stability Assessment | Adelaide | Ballarat | Melbourne | Warrnambool | Queensland

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1. Introduction

Australian Geotechnical Testing (AGT) has been engaged by NEO Infrastructure to provide Level 1 Geotechnical Supervision for allotment filling of **Riverview Subdivision Stage 2** project at **Angle Vale** South Australia.

This Level 1 report presents the results of supervision activities, compaction and moisture control, material placement and laboratory testing for ground works undertaken for the project. This report covers construction activities carried out **15 September 2020 till 16 October 2020.**

2. Scope of Works

The scope of works involved the placement of imported General Fill. Fill Material was placed in Level one fill areas, in accordance with ***AS 3798-2007***, ***Guidelines on earthworks for commercial and residential developments and project specifications***. The level of FILL to be placed is less than 5m as per AS3798 Section 1.1.

The fill material is required as per AS3798 and the project specification to achieve:

- **98% Standard Maximum Dry Density (Compaction)**

General fill material used for the construction was locally sourced and predominantly comprising of **Sandy CLAY.**

3. Inspections / Supervision

Level 1 supervision and inspection was undertaken including the supervision and inspections regarding the stripping and removal as per AS3798 Section 3 shall have removed:

- Organic soils, such as topsoils, severely root affected subsoils and peat.
- Contaminated soils are part of the brief.
- Materials which undergo volume change or loss of strength when disturbed and exposed to moisture.
- Silts, or materials that have deleterious engineering properties of silt.
- Other materials with properties that are unsuitable for the forming of structural fill.
- Fill that contains wood, metal plastic, boulders or other deleterious material, in sufficient proportions to affect the required performance of the fill.
- The maximum particle size of any rocks or other lumps, within the layer, has not exceeded two-thirds ($^2/_3$) of the compacted layer thickness.

The lots inspected were essentially homogeneous in relation to material type and moisture condition, rolling response and compaction technique and which has been used for the assessment of relative compaction of an area of work (AS3798 Section 1.2.8).

Prior to placement any existing filled ground, for which the conditions of the placement are not adequately documented have not been assumed to have been of either standard compaction or of the composition adequate to support fill or any loads has been removed (AS3798 Section 2).

4. Testing

The project was classified as **Residential**, thereby requiring a minimum compaction result of ***98%*** density ratio Standard Compaction for the ***cohesive soils (***AS 1289 5.7.1 & 5.1.1) throughout the Level 1 Fill and in accordance with AS 3798-2007 – Table 5.1. The test was performed using a Nuclear Density Gauge for field density determination *AS 1289.5.8.1.*

As a minimum testing was undertaken either 1 test per lot, 1 test per 1,000m^2 per layer, or 1 test per 200m^3 distributed reasonably evenly throughout full depth and area as per AS3798 Table 8.1.

The material was placed in approximately 250mm loose layers, rolling effort with on-site Compactor (to seal of each layer of placed General Fill material) to a compacted 200mm layer that achieved 98% Standard Compaction which met Australian Standards specifications. This was considered the best method to achieve compaction using the plant and machinery available.

The NATA compaction reports verify the achievement of the minimum density requirement of 98% Standard Compaction throughout the full depth area, with each layer tested accordingly. All test results were provided to our client for inclusion within their internal quality system.

At the completion of the structural layers and material within 150mm of permanent subgrade level in cuttings, test rolling was undertaken, and the layers withstood test rolling without visible deformation or springing (AS 3798 Section 5.5).

The area covered by this Level 1 Supervision report (site plan) and the results of the Laboratory Testing are shown in the Appendix A. The Subgrade and Finished Level survey plan are shown in the Appendix B. The site photos are also indicated in Appendix C.

5. Conclusion

On the completion of the earthworks and after analysing the materials used, it has been concluded that the filling procedure **conducted by NEO Infrastructure satisfies** the general requirements of AS 3798 regards to the placement of fill materials on a project under Level 1 Supervision and in accordance with the project specification as provided to AGT.

The fill meets the requirements for "structural fill for residential *applications" in accordance with AS3798. The* fill has been placed, compacted, and tested in accordance with AS3798 and the fill meets the requirements for controlled fill in accordance with *AS2870 (2011) "Residential Slabs and Footings".*

This report has been prepared for the benefit of our client with respect to the particular brief given to us and it may not be relied upon in other contexts or for any other purpose without our prior review and agreement. No responsibility for this report will be taken by AGT if it is altered in any way, or not reproduced in full.

6. Applicability

The findings and conclusions contained in this Report are made based on site conditions that existed at the time this work was conducted. The conclusions presented in this report are relevant to the conditions of the site and the state of legislation currently enacted as at the date of this report.

Findings and conclusions are made assuming that the soil, groundwater, geological and chemical conditions detailed within this report are accurate and remain applicable to the site at the time of writing. No other warranties are made or intended.

AGT has used a degree of skill and care ordinarily exercised by reputable members of our profession practicing in the same or similar locality.

AGT does not make any representation or warranty that the conclusions in this report will be applicable in the future as there may be changes in the condition of the site, applicable legislation or other factors that would affect the conclusions contained in this report.

This report has been prepared exclusively for use by our Client. This report cannot be reproduced without the written authorisation of AGT and then can only be reproduced in its entirety.

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ENGINEERS AUSTRALIA

Appendix A – Site Plan and Laboratory Testing Summary

RIVERVIEW DEVELOPMENT

RESERVE

FOR A TABLE COMPARING THE BACK OF KERB LEVELS AGAINST THE REQUIRED FLOOD PROTECTION LEVEE LEVELS, REFER TO SHEET 7000. PROVIDED FOR COUNCIL REFERENCE ONLY

EXTENT OF EXISTING STAGE 2 EARTHWORKS. MATCH NEW WORKS TO EXISTING AND MAKE GOOD

BATTER TO NATURAL SURFACE AT 1 IN 6

NEATLY SAWCUT AND MATCH NEW WORK TO EXISTING AND MAKE GOOD

RIVERVIEW DRIVE

MATCH TO EXISTING FOOTPATH/DRIVEWAY NEATLY

START OF WORKS 152.420

TEMPORARY TURNING HEAD, (R9.00m) 200mm COMPACTED QUARRY RUBBLE PAVEMENT. ENSURE TURNING HEAD IS FREE DRAINING.

INSTALL BOLLARDS AT 1.5m CRS 1.0m OFFSET FROM EDGE OF COMPACTED GRAVEL. REFER TO INTERSECTION LAYOUT DETAIL

TRANSITION BETWEEN KERB TYPES AT BOTH ENDS OF PARKING BAY

PARKING BAY. REFER SHEET 26316-3-2A-CV-6001 FOR PAVEMENT DETAILS.

REFERENCE LINE MR Tcds 20

REFERENCE LINE MR Tcds 20CL

MC20

MC70

TRANSITION BETWEEN KERB TYPES OVER 1.0m FROM CH:216.917

TRANSITION BETWEEN KERB TYPES OVER 1.0m FROM CH:225.002

TRANSITION BETWEEN KERB TYPES OVER 1.0m FROM CH:159.429

TRANSITION BETWEEN KERB TYPES OVER 1.0m FROM CH:151.044

STAGE 2A

STAGE 5

STAGE 4

EXISTING STAGE 2

EXISTING STAGE 1

EXISTING STAGE 1A

EXTENT OF EXISTING STAGE 2 EARTHWORKS

EXTENT OF EXISTING STAGE 1 EARTHWORKS. MATCH NEW WORKS TO EXISTING AND MAKE GOOD

EXTENT OF EXISTING EARTHWORKS INCLUDED IN STAGE 1A WORKS

END OF WORKS 292.192

START OF WORKS 115.301

EARTHWORKS BATTER IN THIS VICINITY IS INDICATIVE ONLY. FINAL BATTERING MAY BE ALTERED TO AVOID DEEP DEPRESSION (GRADE OUT)

TEMPORARY SWALE DEPTH=0.3m (MIN.) BASE WIDTH=1m SIDE BATTER=1H:3V MIN. GRADE 0.5%

BATTER TO NATURAL SURFACE AT 1 IN 5 (TYP)

MATCH EXTENT OF EARTHWORKS TO EXISTING AND MAKE GOOD

1.50m WIDE FOOTPATH SET 0.10m OFF BOUNDARY. REFER TO COUNCIL STD. DRG FOR DETAILS.

NEATLY SAWCUT AND MATCH NEW WORK TO EXISTING AND MAKE GOOD

MATCH TO EXISTING FOOTPATH NEATLY

EXISTING KERB OUTLET FOR LOT 56

CAUTION:
EXISTING OVERHEAD AND UNDERGROUND SERVICES IN VICINITY OF WORKS. REFER TO NOTES SHEET AND EXERCISE CAUTION.

LAYOUT PLAN
SCALE 1:250

REFERENCE NOTE:
REFER TO DRAWINGS 1001 & 1002 FOR NOTES AND LEGEND

FOR CONSTRUCTION

REV.	DATE	DESCRIPTION	DRN.	APP'D.
1	29/10/2020	KERB OUTLETS ADDED	AJM	MWW
0	20/08/2020	ISSUED FOR CONSTRUCTION	AJM	MWW

1 : 250 (A1) 1 : 500 (A3)

CLIENT: ACTIUM LAND DEVELOPMENTS

DEV. NO. 292/D039/17

SURVEYED	COUNCIL
A & S	PLAYFORD
DRAWN: AJM	DRAFTING CHECK: SGC
DESIGNED: SGC	DESIGN CHECK: MWW
APP'D.	APP'D. DATE

FYFE
HEAD OFFICE
L2, 124 South Terrace
Adelaide SA 5000
GPO Box 2450
Adelaide SA 5001
www.fyfe.com.au
Telephone 61 8 8201 9600
Facsimile 61 8 8201 9650

RIVERVIEW DEVELOPMENT
HEASLIP ROAD
ANGLE VALE

CIVIL WORKS
ROADWORKS & DRAINAGE LAYOUT PLAN

STAGE 2A

CAD. REF: 26316-3-2A-CV-1005.DWG
STATUS: FOR CONSTRUCTION
DRAWING No.: 26316-3-2A-CV-1005
REV: 1

29/10/2020 10:34:12 AM \\ADLDATA03\FLINDERS_STREET_DATA\PROJECTS - 80 FS\20000\26000\26316-3\05 CADD\03 WORKING\DRAWINGS STG2A\26316-3-2A-CV-1005.DWG

Material Test Report

Report Number: **AGT40766-1**
Issue Number: 1
Date Issued: 21/09/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1787
Date Sampled: 15/09/2020
Dates Tested: 16/09/2020 - 16/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

Australian Geotechnical Testing
Adelaide Laboratory
37 Nicholson Road Evanston South SA 5116
Phone: 0435 111 647
Email: LokyM@ausgeotest.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Loky Maynard
Laboratory Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40766-1	40766-2	
Date Tested	15/09/2020	15/09/2020	
Time Tested	**	**	
Test Request #/Location	Lot 99 - Locations From SW Corner Of Lot	Lot 54 - Locations From SW Corner Of Lot	
Line / Offset	8m N	3m N	
Offset	5m E	10m E	
Layer / Reduced Level	Subgrade	Subgrade	
Thickness of Layer (mm)	200	200	
Soil Description	Sandy CLAY	Sandy CLAY	
Test Depth (mm)	150	150	
Fraction Tested (mm)	19.0	19.0	
Oversize (wet basis) %	0	0	
Oversize (dry basis) %	0	0	
Field Wet Density t/m^3	1.97	2.06	
Field Moisture Content %	6.4	5.1	
Field Dry Density t/m^3	1.85	1.96	
Maximum Dry Density t/m^3	1.88	1.99	
Adjusted Maximum Dry Density t/m^3	**	**	
Optimum Moisture Content (OMC) %	10.5	9.0	
Adjusted Optimum Moisture Content (OMC) %	**	**	
Moisture Variation %	4.0	4.0	
Moisture Ratio %	60.5	55.5	
Density Ratio %	**98.5**	**98.5**	
Compaction Method	**Standard**	**Standard**	

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Results relate only to the items tested/sampled.

Material Test Report

Report Number: **AGT40766-2**
Issue Number: 1
Date Issued: 21/09/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1788
Date Sampled: 17/09/2020
Dates Tested: 18/09/2020 - 18/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Approved Signatory: Loky Maynard
Laboratory Manager

NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1				
Sample Number	40766-3	40766-4	40766-5	40766-6
Date Tested	17/09/2020	17/09/2020	17/09/2020	17/09/2020
Time Tested	**	**	**	**
Test Request #/Location	Lot 100 - Locations From SW Corner Of Lots	Lot 87 - Locations From SW Corner Of Lots	Lot 49 - Locations From SW Corner Of Lots	Lot 52 - Locations From SW Corner Of Lots
Line / Offset	16m N	8m N	6m N	12m N
Offset	12m E	4m E	3m E	5m E
Layer / Reduced Level	Subgrade	Subgrade	Subgrade	Subgrade
Thickness of Layer (mm)	200	200	200	200
Soil Description	Sandy CLAY	Sandy CLAY	Sandy CLAY	Sandy CLAY
Test Depth (mm)	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0
Oversize (dry basis) %	0	0	0	0
Field Wet Density t/m^3	1.84	1.86	1.85	1.84
Field Moisture Content %	15.7	16.3	16.0	16.0
Field Dry Density t/m^3	1.60	1.60	1.60	1.58
Maximum Dry Density t/m^3	1.60	1.60	1.61	1.59
Adjusted Maximum Dry Density t/m^3	**	**	**	**
Optimum Moisture Content (OMC) %	19.0	18.0	18.5	18.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**
Moisture Variation %	3.0	1.5	2.5	2.5
Moisture Ratio %	83.5	90.5	87.0	86.5
Density Ratio %	**99.5**	**100.0**	**99.0**	**99.5**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Material Test Report

Report Number: **AGT40766-3**
Issue Number: 1
Date Issued: 24/09/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1795
Date Sampled: 17/09/2020
Dates Tested: 21/09/2020 - 22/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Laboratory Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40766-7	40766-8	40766-9
Date Tested	17/09/2020	17/09/2020	17/09/2020
Time Tested	**	**	**
Test Request #/Location	Allotment Fill - Lot 87 - Locations From SW Corner Of Lots	Allotment Fill - Lot 98 - Locations From SW Corner Of Lots	Allotment Fill - Lot 100 - Locations From SW Corner Of Lots
Chainage (m)	8m N	14m N	6m N
Location Offset (m)	20m E	6m E	10m E
Layer / Reduced Level	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy CLAY	Sandy CLAY	Sandy CLAY
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m^3	1.85	1.84	1.84
Field Moisture Content %	15.2	16.9	16.8
Field Dry Density t/m^3	1.61	1.57	1.57
Maximum Dry Density t/m^3	1.63	1.58	1.60
Adjusted Maximum Dry Density t/m^3	**	**	**
Optimum Moisture Content (OMC) %	19.0	22.0	21.0
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	4.0	5.0	4.0
Moisture Ratio %	79.5	77.0	80.0
Density Ratio %	**98.5**	**99.0**	**98.5**
Compaction Method	**Standard**	**Standard**	**Standard**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Material Test Report

Report Number: **AGT40766-4**
Issue Number: 1
Date Issued: 24/09/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1796
Date Sampled: 17/09/2020
Dates Tested: 21/09/2020 - 23/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Approved Signatory: Loky Maynard
Laboratory Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40766-10	40766-11	40766-12
Date Tested	17/09/2020	17/09/2020	17/09/2020
Time Tested	**	**	**
Test Request #/Location	Allotment Fill - Lot 99 - Locations From SW Corner Of Lots	Allotment Fill - Lot 100 - Locations From SW Corner Of Lots	Allotment Fill - Lot 86 - Locations From SW Corner Of Lots
Line / Offset	23m N	12m N	8m N
Offset	2m E	16m E	18m E
Layer / Reduced Level	Layer 2	Layer 2	Layer 2
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy CLAY	Sandy CLAY	Sandy CLAY
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m^3	1.85	1.84	1.83
Field Moisture Content %	16.4	16.4	16.7
Field Dry Density t/m^3	1.59	1.58	1.57
Maximum Dry Density t/m^3	1.62	1.61	1.61
Adjusted Maximum Dry Density t/m^3	**	**	**
Optimum Moisture Content (OMC) %	21.0	21.5	21.0
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	4.5	5.0	4.0
Moisture Ratio %	78.5	76.0	80.0
Density Ratio %	**98.0**	**98.0**	**98.0**
Compaction Method	**Standard**	**Standard**	**Standard**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Material Test Report

Report Number: AGT40766-5
Issue Number: 1
Date Issued: 28/09/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1803
Date Sampled: 22/09/2020
Dates Tested: 24/09/2020 - 25/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Approved Signatory: Loky Maynard
Laboratory Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1					
Sample Number	40766-13	40766-14	40766-15	40766-16	40766-17
Date Tested	22/09/2020	22/09/2020	22/09/2020	22/09/2020	22/09/2020
Time Tested	**	**	**	**	**
Test Request #/Location	Allotment Fill - Lot 53 - Locations From NE Corner Of Lots	Allotment Fill - Lot 55 - Locations From NE Corner Of Lots	Allotment Fill - Lot 50 - Locations From NE Corner Of Lots	Allotment Fill - Lot 54 - Locations From NE Corner Of Lots	Allotment Fill - Lot 51 - Locations From NE Corner Of Lots
Line / Offset	11m W	10m W	15m W	9m W	5m W
Offset	20m S	26m S	30m S	15m S	16m S
Layer / Reduced Level	Layer 1	Layer 1	Layer 1	Layer 1	Layer 1
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	Sandy CLAY	Sandy CLAY	Sandy CLAY	Sandy CLAY	Sandy CLAY
Test Depth (mm)	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0
Field Wet Density t/m^3	2.11	2.12	2.13	2.10	2.10
Field Moisture Content %	7.3	8.6	8.3	8.1	8.6
Field Dry Density t/m^3	1.96	1.95	1.96	1.95	1.93
Maximum Dry Density t/m^3	1.95	1.95	1.96	1.94	1.90
Adjusted Maximum Dry Density t/m^3	**	**	**	**	**
Optimum Moisture Content (OMC) %	11.0	11.5	11.0	10.5	12.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**
Moisture Variation %	3.5	3.0	3.0	2.5	4.0
Moisture Ratio %	67.0	75.0	74.0	75.5	69.5
Density Ratio %	**101.0**	**100.0**	**100.0**	**100.5**	**101.5**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

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Material Test Report

Report Number: AGT40766-6
Issue Number: 1
Date Issued: 28/09/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1805
Date Sampled: 23/09/2020
Dates Tested: 24/09/2020 - 25/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Loky Maynard
Laboratory Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1					
Sample Number	40766-18	40766-19	40766-20	40766-21	40766-22
Date Tested	23/09/2020	23/09/2020	23/09/2020	23/09/2020	23/09/2020
Time Tested	**	**	**	**	**
Test Request #/Location	Allotment Fill - Lot 49 - Locations From NE Corner Of Lots	Allotment Fill - Lot 52 - Locations From NE Corner Of Lots	Allotment Fill - Lot 56 - Locations From NE Corner Of Lots	Allotment Fill - Lot 50 - Locations From NE Corner Of Lots	Allotment Fill - Lot 55 - Locations From NE Corner Of Lots
Line / Offset	5m S	9m S	26m S	30m S	11mm S
Offset	6m W	20m W	12m W	6m W	11m W
Layer / Reduced Level	Layer 2	Layer 2	Layer 2	Layer 2	Layer 2
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0
Field Wet Density t/m^3	2.16	2.13	2.14	2.22	2.22
Field Moisture Content %	13.4	11.5	11.2	13.1	13.0
Field Dry Density t/m^3	1.91	1.91	1.93	1.96	1.96
Maximum Dry Density t/m^3	1.94	1.94	1.97	2.00	1.99
Adjusted Maximum Dry Density t/m^3	**	**	**	**	**
Optimum Moisture Content (OMC) %	12.5	12.0	12.0	11.0	10.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**
Moisture Variation %	-1.0	0.5	1.0	-2.5	-2.5
Moisture Ratio %	107.0	94.5	92.5	121.5	125.0
Density Ratio %	**98.0**	**98.5**	**98.0**	**98.0**	**98.5**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

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Material Test Report

Report Number: AGT40766-7
Issue Number: 1
Date Issued: 28/09/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1807
Date Sampled: 23/09/2020
Dates Tested: 24/09/2020 - 25/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

Australian Geotechnical Testing
Adelaide Laboratory
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Approved Signatory: Loky Maynard
Laboratory Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1					
Sample Number	40766-23	40766-24	40766-25	40766-26	40766-27
Date Tested	23/09/2020	23/09/2020	23/09/2020	23/09/2020	23/09/2020
Time Tested	**	**	**	**	**
Test Request #/Location	Allotment Fill - Lot 51 - Locations From NE Corner Of Lots	Allotment Fill - Lot 53 - Locations From NE Corner Of Lots	Allotment Fill - Lot 54 - Locations From NE Corner Of Lots	Allotment Fill - Lot 55 - Locations From NE Corner Of Lots	Allotment Fill - Lot 50 - Locations From NE Corner Of Lots
Line / Offset	31m S	32m S	20m S	3m S	5m S
Offset	8m W	16m W	9m W	11m W	5m W
Layer / Reduced Level	Layer 3	Layer 3	Layer 3	Layer 3	Layer 3
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND	Clayey SAND
Test Depth (mm)	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0
Field Wet Density t/m^3	2.20	2.19	2.14	2.17	2.17
Field Moisture Content %	13.9	12.8	12.9	12.3	12.9
Field Dry Density t/m^3	1.93	1.94	1.90	1.93	1.93
Maximum Dry Density t/m^3	1.97	1.97	1.92	1.97	1.96
Adjusted Maximum Dry Density t/m^3	**	**	**	**	**
Optimum Moisture Content (OMC) %	10.0	11.0	10.5	11.5	11.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**
Moisture Variation %	-3.5	-1.5	-2.5	-1.0	-1.0
Moisture Ratio %	136.5	114.5	125.0	109.0	110.5
Density Ratio %	**98.0**	**98.5**	**99.0**	**98.5**	**98.5**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

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Material Test Report

Report Number: AGT40766-8
Issue Number: 1
Date Issued: 06/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1828
Date Sampled: 29/09/2020
Dates Tested: 29/09/2020 - 30/09/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Approved Signatory: Loky Maynard
Laboratory Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1					
Sample Number	40766-28	40766-29	40766-30	40766-31	40766-32
Date Tested	29/09/2020	29/09/2020	29/09/2020	29/09/2020	29/09/2020
Time Tested	09:00	09:15	09:30	09:45	10:00
Test Request #/Location	Allotment Fill - Lot 50 - Locations From NE Corner Of Lots	Allotment Fill - Lot 54 - Locations From NE Corner Of Lots	Allotment Fill - Lot 49 - Locations From NE Corner Of Lots	Allotment Fill - Lot 56 - Locations From NE Corner Of Lots	Allotment Fill - Lot 52 - Locations From NE Corner Of Lots
Line / Offset	15m S	20m S	11m S	22m S	10m S
Offset	10m W	6m W	3m W	10m W	5m W
Layer / Reduced Level	layer 4	layer 4	layer 4	layer 4	layer 4
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	Clayey Sand	Clayey Sand	Clayey Sand	Clayey Sand	Clayey Sand
Test Depth (mm)	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0
Field Wet Density t/m^3	2.11	2.15	2.12	2.14	2.12
Field Moisture Content %	11.8	13.4	13.7	13.3	12.9
Field Dry Density t/m^3	1.89	1.89	1.86	1.89	1.88
Maximum Dry Density t/m^3	1.92	1.92	1.88	1.91	1.91
Adjusted Maximum Dry Density t/m^3	**	**	**	**	**
Optimum Moisture Content (OMC) %	12.5	13.5	13.5	13.0	13.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**
Moisture Variation %	0.5	0.0	0.0	0.0	0.5
Moisture Ratio %	96.0	100.0	101.5	101.0	95.5
Density Ratio %	**98.5**	**98.5**	**99.0**	**99.0**	**98.5**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

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Material Test Report

Report Number: **AGT40766-9**
Issue Number: 1
Date Issued: 09/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1859
Date Sampled: 02/10/2020
Dates Tested: 06/10/2020 - 07/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Approved Signatory: Loky Maynard
Laboratory Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40766-33	40766-34	40766-35
Date Tested	02/10/2020	02/10/2020	02/10/2020
Time Tested	14:00	14:15	14:30
Test Request #/Location	Allotment Fill - Lot 98 - Locations From NE Corner Of Lots	Allotment Fill - Lot 87 - Locations From NE Corner Of Lots	Allotment Fill - Lot 99 - Locations From NE Corner Of Lots
Line / Offset	10m S	5m S	3m S
Offset	15m W	10m W	5m W
Layer / Reduced Level	Layer 3	Layer 3	Layer 3
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m^3	2.12	2.16	2.14
Field Moisture Content %	10.0	12.8	12.3
Field Dry Density t/m^3	1.93	1.92	1.91
Maximum Dry Density t/m^3	1.90	1.92	1.88
Adjusted Maximum Dry Density t/m^3	**	**	**
Optimum Moisture Content (OMC) %	14.5	16.0	16.0
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	4.5	3.5	4.0
Moisture Ratio %	70.0	79.5	76.5
Density Ratio %	**101.5**	**100.0**	**101.5**
Compaction Method	**Standard**	**Standard**	**Standard**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Material Test Report

Report Number: **AGT40766-11**
Issue Number: 1
Date Issued: 24/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1879
Date Sampled: 12/10/2020
Dates Tested: 13/10/2020 - 15/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Approved Signatory: Loky Maynard
Laboratory Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40766-37	40766-38	40766-39
Date Tested	12/10/2020	12/10/2020	12/10/2020
Time Tested	10:00	10:10	10:20
Test Request #/Location	Allotment Fill - Lot 100 - Locations From NE Corner Of Lots	Allotment Fill - Lot 86 - Locations From NE Corner Of Lots	Allotment Fill - Lot 99 - Locations From NE Corner Of Lots
Line / Offset	7m S	10m S	3m S
Offset	10m W	10m W	3m W
Layer / Reduced Level	Layer 5	Layer 5	Layer 5
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m^3	2.15	2.14	2.16
Field Moisture Content %	9.9	9.0	9.8
Field Dry Density t/m^3	1.96	1.96	1.96
Maximum Dry Density t/m^3	1.99	2.00	1.99
Adjusted Maximum Dry Density t/m^3	**	**	**
Optimum Moisture Content (OMC) %	10.0	10.5	10.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	0.5	1.5	0.5
Moisture Ratio %	97.0	87.5	94.0
Density Ratio %	**98.0**	**98.0**	**99.0**
Compaction Method	**Standard**	**Standard**	**Standard**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Material Test Report

Report Number: AGT40766-12
Issue Number: 1
Date Issued: 24/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1882
Date Sampled: 12/10/2020
Dates Tested: 13/10/2020 - 14/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1
Lot Number: Sewer Backfill
Material: Sandy Clay
Material Source: Onsite

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Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1						
Sample Number	40766-40	40766-41	40766-42	40766-43	40766-44	40766-45
Date Tested	12/10/2020	12/10/2020	12/10/2020	12/10/2020	12/10/2020	12/10/2020
Time Tested	14:00	14:10	14:20	14:30	14:40	14:50
Test Request #/Location	Sewer Backfill	Sewer Backfill	Sewer Backfill	Sewer Backfill	Sewer Backfill	Sewer Backfill
Chainage (m)	130	181	213	250	31	34
Location Offset (m)	CL Of Trench from CL	CL Of Trench from CL	CL Of Trench from CL	CL Of Trench from CL	CL Of Trench from CL	CL Of Trench from CL
Layer / Reduced Level	Layer-1	Layer-1	Layer-1	Layer-1	Layer-1	Layer-1
Thickness of Layer (mm)	200	200	200	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0	0
Field Wet Density t/m^3	2.05	2.04	2.02	2.04	2.06	2.04
Field Moisture Content %	18.2	19.1	16.9	18.3	18.7	18.0
Field Dry Density t/m^3	1.73	1.71	1.73	1.73	1.74	1.72
Maximum Dry Density t/m^3	1.74	1.70	1.75	1.73	1.75	1.74
Adjusted Maximum Dry Density t/m^3	**	**	**	**	**	**
Optimum Moisture Content (OMC) %	18.5	20.5	17.5	19.0	18.5	17.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**	**
Moisture Variation %	0.5	1.5	0.5	1.0	-0.5	-0.5
Moisture Ratio %	97.5	92.5	96.0	96.0	102.0	102.5
Density Ratio %	**99.5**	**100.5**	**99.0**	**99.5**	**99.5**	**99.5**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Material Test Report

Report Number: **AGT40766-13**
Issue Number: 1
Date Issued: 24/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1884
Date Sampled: 13/10/2020
Dates Tested: 14/10/2020 - 14/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40766-46	40766-47	40766-48
Date Tested	13/10/2020	13/10/2020	13/10/2020
Time Tested	08:00	08:10	08:20
Test Request #/Location	Allotment Fill - Lot 98 - Locations From NE Corner Of Lots	Allotment Fill - Lot 87 - Locations From NE Corner Of Lots	Allotment Fill - Lot 86 - Locations From NE Corner Of Lots
Line / Offset	8m S	10m S	15m S
Offset	10m W	13m w	8m W
Layer / Reduced Level	layer 5	layer 5	layer 5
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m^3	2.10	2.08	2.08
Field Moisture Content %	9.6	9.1	9.3
Field Dry Density t/m^3	1.92	1.91	1.90
Maximum Dry Density t/m^3	1.91	1.90	1.90
Adjusted Maximum Dry Density t/m^3	**	**	**
Optimum Moisture Content (OMC) %	13.5	13.5	12.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	4.0	4.5	3.0
Moisture Ratio %	70.5	68.0	75.0
Density Ratio %	**100.5**	**100.0**	**100.0**
Compaction Method	**Standard**	**Standard**	**Standard**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Material Test Report

Report Number: **AGT40766-15**
Issue Number: 1
Date Issued: 27/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1893
Date Sampled: 14/10/2020
Dates Tested: 14/10/2020 - 15/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Approved Signatory: Jon Lillecrapp
Testing Services Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40766-55	40766-56	40766-57
Date Tested	14/10/2020	14/10/2020	14/10/2020
Time Tested	13:00	13:10	13:20
Test Request #/Location	Allotment Fill - Lot 100 - Locations From NE Corner Of Lots	Allotment Fill - Lot 98 - Locations From NE Corner Of Lots	Allotment Fill - Lot 99 - Locations From NE Corner Of Lots
Line / Offset	10m W	11m W	7m W
Offset	15m S	12m S	6m S
Layer / Reduced Level	Layer 6	Layer 6	Layer 6
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m^3	2.11	2.10	2.10
Field Moisture Content %	7.9	8.1	8.7
Field Dry Density t/m^3	1.96	1.94	1.93
Maximum Dry Density t/m^3	1.93	1.91	1.91
Adjusted Maximum Dry Density t/m^3	**	**	**
Optimum Moisture Content (OMC) %	11.5	11.5	11.0
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	4.0	3.5	2.5
Moisture Ratio %	67.5	70.0	79.0
Density Ratio %	**101.0**	**102.0**	**101.0**
Compaction Method	**Standard**	**Standard**	**Standard**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Material Test Report

Report Number: **AGT40766-18**
Issue Number: 1
Date Issued: 27/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1914
Date Sampled: 15/10/2020
Dates Tested: 16/10/2020 - 21/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Approved Signatory: Jon Lillecrapp
Testing Services Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1					
Sample Number	40766-66	40766-67	40766-68	40766-69	40766-70
Date Tested	15/10/2020	15/10/2020	15/10/2020	15/10/2020	15/10/2020
Time Tested	12:00	12:10	12:20	12:30	12:40
Test Request #/Location	Allotment Fill - Lot 52 - Locations From NE Corner Of Lots	Allotment Fill - Lot 50 - Locations From NE Corner Of Lots	Allotment Fill - Lot 55 - Locations From NE Corner Of Lots	Allotment Fill - Lot 54 - Locations From NE Corner Of Lots	Allotment Fill - Lot 49 - Locations From NE Corner Of Lots
Line / Offset	10m S	5m S	5m S	15m S	7m S
Offset	14m W	10m W	5m W	15m W	10m W
Layer / Reduced Level	Layer 5	Layer 5	Layer 5	Layer 5	Layer 5
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0
Field Wet Density t/m^3	2.10	2.18	2.12	2.16	2.13
Field Moisture Content %	9.4	10.5	9.4	13.6	10.2
Field Dry Density t/m^3	1.92	1.97	1.94	1.90	1.93
Maximum Dry Density t/m^3	1.92	1.95	1.97	1.93	1.95
Adjusted Maximum Dry Density t/m^3	**	**	**	**	**
Optimum Moisture Content (OMC) %	12.0	12.0	11.5	14.0	12.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**
Moisture Variation %	2.5	1.5	2.0	0.5	2.5
Moisture Ratio %	79.5	87.5	82.5	98.0	81.5
Density Ratio %	**100.0**	**101.0**	**98.5**	**98.5**	**99.0**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

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Material Test Report

Report Number: **AGT40766-19**
Issue Number: 1
Date Issued: 27/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1925
Date Sampled: 16/10/2020
Dates Tested: 19/10/2020 - 23/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

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Testing Services Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1			
Sample Number	40766-71	40766-72	40766-73
Date Tested	16/10/2020	16/10/2020	16/10/2020
Time Tested	09:00	09:10	09:20
Test Request #/Location	Allotment Fill - Lot 98 - Locations From NE Corner Of Lots	Allotment Fill - Lot 87 - Locations From NE Corner Of Lots	Allotment Fill - Lot 86 - Locations From NE Corner Of Lots
Line / Offset	11m S	10m S	5m S
Offset	15m W	5m W	12m W
Layer / Reduced Level	Layer 5	Layer 5	Layer 5
Thickness of Layer (mm)	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0
Oversize (dry basis) %	0	0	0
Field Wet Density t/m^3	2.08	2.06	2.07
Field Moisture Content %	10.5	10.7	9.8
Field Dry Density t/m^3	1.88	1.86	1.88
Maximum Dry Density t/m^3	1.91	1.90	1.91
Adjusted Maximum Dry Density t/m^3	**	**	**
Optimum Moisture Content (OMC) %	12.5	12.0	12.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**
Moisture Variation %	2.0	1.0	2.5
Moisture Ratio %	84.5	90.0	79.5
Density Ratio %	**98.5**	**98.0**	**99.0**
Compaction Method	**Standard**	**Standard**	**Standard**

Moisture Variation Note:
Positive values = test is dry of OMC
Negative values = test is wet of OMC

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Results relate only to the items tested/sampled.

Material Test Report

Report Number: AGT40766-20
Issue Number: 1
Date Issued: 27/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1926
Date Sampled: 16/10/2020
Dates Tested: 19/10/2020 - 23/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

Australian Geotechnical Testing
Adelaide Laboratory
37 Nicholson Road Evanston South SA 5116
Phone: 0435 111 647
Email: jonl@ausgeotest.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Jon Lillecrapp
Testing Services Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1					
Sample Number	40766-74	40766-75	40766-76	40766-77	40766-78
Date Tested	16/10/2020	16/10/2020	16/10/2020	16/10/2020	16/10/2020
Time Tested	11:00	11:10	11:20	11:30	11:40
Test Request #/Location	Allotment Fill - Lot 51 - Locations From NE Corner Of Lots	Allotment Fill - Lot 50 - Locations From NE Corner Of Lots	Allotment Fill - Lot 49 - Locations From NE Corner Of Lots	Allotment Fill - Lot 53 - Locations From NE Corner Of Lots	Allotment Fill - Lot 54 - Locations From NE Corner Of Lots
Line / Offset	10m S	12m S	9m S	11m S	15m S
Offset	6m W	3m W	8m W	4m W	10m W
Layer / Reduced Level	Layer 7	Layer 7	Layer 7	Layer 7	Layer 7
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0
Field Wet Density t/m^3	2.16	2.19	2.15	2.16	2.18
Field Moisture Content %	8.4	8.8	9.3	8.6	9.0
Field Dry Density t/m^3	1.99	2.01	1.97	1.99	2.00
Maximum Dry Density t/m^3	1.95	2.00	1.97	1.99	2.01
Adjusted Maximum Dry Density t/m^3	**	**	**	**	**
Optimum Moisture Content (OMC) %	13.0	12.5	13.5	13.5	13.0
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**
Moisture Variation %	5.0	3.5	4.5	5.0	4.0
Moisture Ratio %	63.5	71.5	68.0	64.0	70.5
Density Ratio %	**101.5**	**100.5**	**99.5**	**100.5**	**99.5**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

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Results relate only to the items tested/sampled.

Material Test Report

Report Number: **AGT40766-21**
Issue Number: 1
Date Issued: 27/10/2020
Client: NEO Infrastructure
25 Liston Rd, Lonsdale SA
Project Number: AGT40766
Project Name: Rivers View Stage 2
Project Location: Angle Vale
Work Request: 1927
Date Sampled: 16/10/2020
Dates Tested: 19/10/2020 - 23/10/2020
Sampling Method: AS 1289.1.2.1 6.4 (b) - Sampling from layers in earthworks or pavement - compacted
Specification: 98% Standard AS1289 5.1.1

Australian Geotechnical Testing
Adelaide Laboratory
37 Nicholson Road Evanston South SA 5116
Phone: 0435 111 647
Email: jonl@ausgeotest.com.au

Accredited for compliance with ISO/IEC 17025 - Testing

Approved Signatory: Jon Lillecrapp
Testing Services Manager
NATA Accredited Laboratory Number: 20247

Compaction Control AS 1289 5.1.1 & 5.4.1 & 5.8.1 & 2.1.1					
Sample Number	40766-79	40766-80	40766-81	40766-82	40766-83
Date Tested	16/10/2020	16/10/2020	16/10/2020	16/10/2020	16/10/2020
Time Tested	12:00	12:10	12:20	12:30	12:40
Test Request #/Location	Allotment Fill - Lot 55 - Locations From NE Corner Of Lots	Allotment Fill - Lot 56 - Locations From NE Corner Of Lots	Allotment Fill - Lot 49 - Locations From NE Corner Of Lots	Allotment Fill - Lot 50 - Locations From NE Corner Of Lots	Allotment Fill - Lot 51 - Locations From NE Corner Of Lots
Line / Offset	10m S	15m S	6m S	6m S	9m S
Offset	5m W	15m W	2m W	8m W	5m W
Layer / Reduced Level	Layer 6	Layer 6	Layer 6	Layer 6	Layer 6
Thickness of Layer (mm)	200	200	200	200	200
Soil Description	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay	Sandy Clay
Test Depth (mm)	150	150	150	150	150
Fraction Tested (mm)	19.0	19.0	19.0	19.0	19.0
Oversize (wet basis) %	0	0	0	0	0
Oversize (dry basis) %	0	0	0	0	0
Field Wet Density t/m^3	2.18	2.20	2.14	2.17	2.16
Field Moisture Content %	8.6	8.9	7.6	9.4	8.9
Field Dry Density t/m^3	2.01	2.02	1.99	1.99	1.98
Maximum Dry Density t/m^3	1.94	1.94	1.97	1.97	1.96
Adjusted Maximum Dry Density t/m^3	**	**	**	**	**
Optimum Moisture Content (OMC) %	12.5	12.5	11.0	13.5	13.5
Adjusted Optimum Moisture Content (OMC) %	**	**	**	**	**
Moisture Variation %	4.0	3.5	3.5	4.0	4.5
Moisture Ratio %	69.5	72.0	69.5	69.5	67.0
Density Ratio %	**103.5**	**103.5**	**100.5**	**101.0**	**101.0**
Compaction Method	**Standard**	**Standard**	**Standard**	**Standard**	**Standard**

Moisture Variation Note:

Positive values = test is dry of OMC

Negative values = test is wet of OMC

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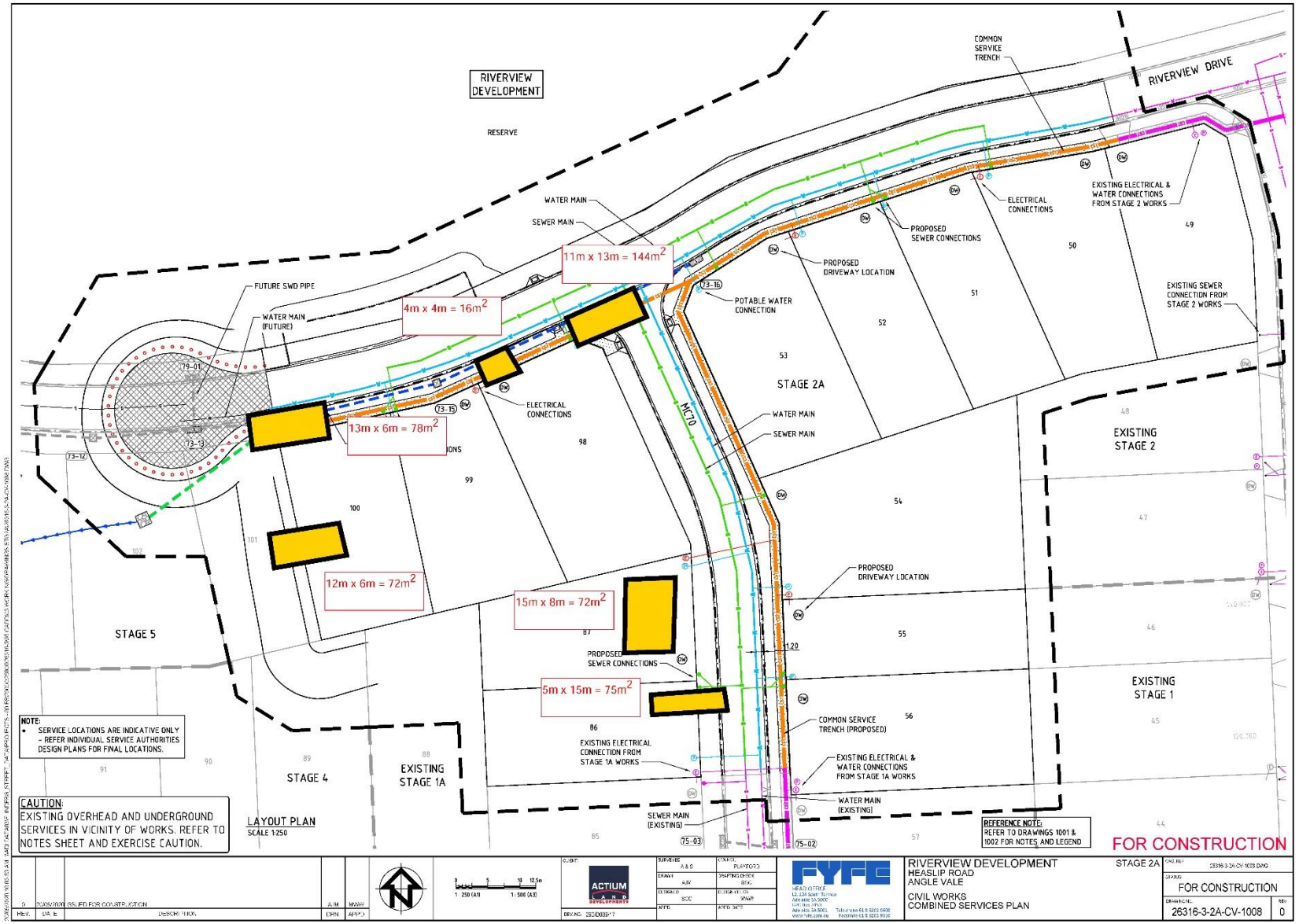
Appendix B – Subgrade Proof Roll Locations


RIVERVIEW DEVELOPMENT
RESERVE
COMMON SERVICE TRENCH
RIVERVIEW DRIVE
WATER MAIN
SEWER MAIN
11m x 13m = 144m2
4m x 4m = 16m2
FUTURE SWD PIPE
WATER MAIN (FUTURE)
PROPOSED SEWER CONNECTIONS
ELECTRICAL CONNECTIONS
EXISTING ELECTRICAL & WATER CONNECTIONS FROM STAGE 2 WORKS
PROPOSED DRIVEWAY LOCATION
POTABLE WATER CONNECTION
EXISTING SEWER CONNECTION FROM STAGE 2 WORKS
STAGE 2A
13m x 6m = 78m2
MC10
EXISTING STAGE 2
12m x 6m = 72m2
15m x 8m = 72m2
STAGE 5
5m x 15m = 75m2
COMMON SERVICE TRENCH (PROPOSED)
EXISTING ELECTRICAL CONNECTION FROM STAGE 1A WORKS
EXISTING ELECTRICAL & WATER CONNECTIONS FROM STAGE 1A WORKS
EXISTING STAGE 1
STAGE 4
EXISTING STAGE 1A
SEWER MAIN (EXISTING)
WATER MAIN (EXISTING)
NOTE:
• SERVICE LOCATIONS ARE INDICATIVE ONLY - REFER INDIVIDUAL SERVICE AUTHORITIES DESIGN PLANS FOR FINAL LOCATIONS.
CAUTION:
EXISTING OVERHEAD AND UNDERGROUND SERVICES IN VICINITY OF WORKS. REFER TO NOTES SHEET AND EXERCISE CAUTION.
LAYOUT PLAN
SCALE 1:250
REFERENCE NOTE:
REFER TO DRAWINGS 1001 & 1002 FOR NOTES AND LEGEND
FOR CONSTRUCTION
RIVERVIEW DEVELOPMENT
HEASLIP ROAD
ANGLE VALE
CIVIL WORKS
COMBINED SERVICES PLAN
STAGE 2A
FOR CONSTRUCTION
26316-3-2A-CV-1008
0

Appendix C – Survey Plans

NOTES

1. SURVEY COMPLETED 11TH SEPTEMBER 2020.
2. SURVEY BY JCP.
3. ALL COORDINATES AND LEVELS ARE BASED ON SURVEY INFORMATION PROVIDED BY NEO GROUP.
4. CONTOUR INTERVAL 0.1m.
5. ALL DETAILS ARE CORRECT AT TIME OF SURVEY.

TOTAL CONSTRUCTION SURVEYS PTY LTD

3 MARLOW ROAD
KESWICK SA 5035
M 0400 882 614
T 08 8297 4600
F 08 8297 6600
tcs@tcsurveys.com
A.B.N. 12 154 678 008

Amendments

Rev.	Subject	Date	Init.

POST TOPSOIL STRIP SURVEY
RIVERS VIEW STAGE 2
ANGLE VALE

Prepared For: NEO GROUP

Plan No. 2799/AC/01

Rev No.

Scale NTS

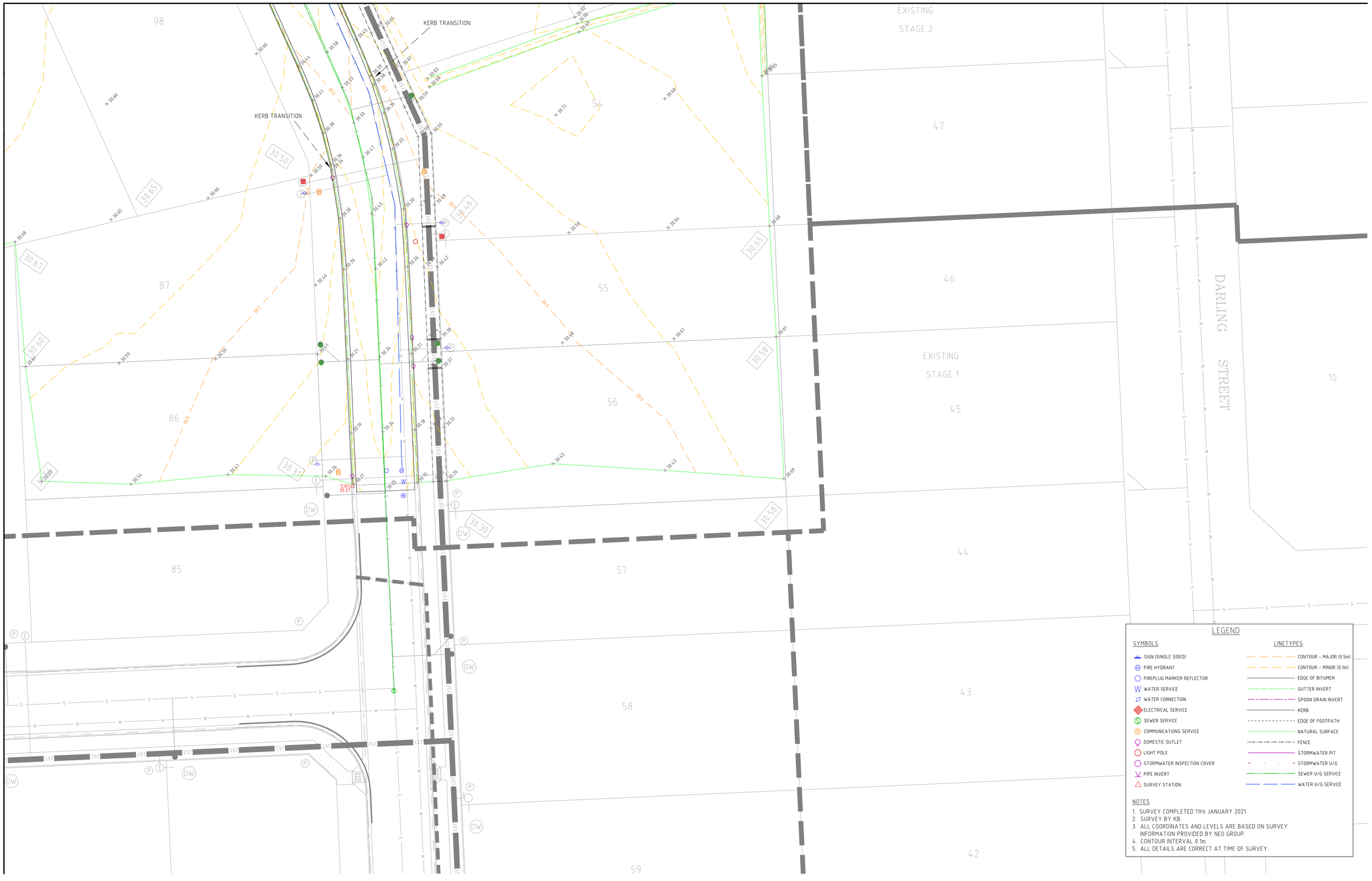
Sheet 1 of 1

Plan Details

Surveyed:	JCP	Date:	11th Sep 2020
Drawn:	JCP	Date:	11th Sep 2020
Checked:		Date:	
Job No:	2799		

FOR CONTINUATION REFER SHEET 2

FOR CONTINUATION REFER SHEET 3



LEGEND

SYMBOLS	LINETYPES
SIGN (SINGLE SIDED)	CONTOUR - MAJOR (0.5m)
FIRE HYDRANT	CONTOUR - MINOR (0.1m)
FIREPLUG MARKER REFLECTOR	EDGE OF BITUMEN
WATER SERVICE	GUTTER INVERT
WATER CONNECTION	SPOON DRAIN INVERT
ELECTRICAL SERVICE	KERB
SEWER SERVICE	EDGE OF FOOTPATH
COMMUNICATIONS SERVICE	NATURAL SURFACE
DOMESTIC OUTLET	FENCE
LIGHT POLE	STORMWATER PIT
STORMWATER INSPECTION COVER	STORMWATER U/G
PIPE INVERT	SEWER U/G SERVICE
SURVEY STATION	WATER U/G SERVICE

NOTES

1. SURVEY COMPLETED 11th JANUARY 2021.
2. SURVEY BY KB.
3. ALL COORDINATES AND LEVELS ARE BASED ON SURVEY INFORMATION PROVIDED BY NEO GROUP.
4. CONTOUR INTERVAL 0.1m.
5. ALL DETAILS ARE CORRECT AT TIME OF SURVEY.

TOTAL CONSTRUCTION SURVEYS PTY LTD

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Amendments

Rev.	Subject	Date	Init.

ASCONSTRUCTED SURVEY
RIVERVIEW SUBDIVISION STAGE 2
ANGLE VALE

Prepared For: NEO GROUP

Plan No. 2799/AC/01

Rev No.

Scale 1:200 (A1)

Sheet 1 of 3

Plan Details

Surveyed:	KB	Date:	11th Jan 2021
Drawn:	KB	Date:	12th Jan 2021
Checked:		Date:	
Job No:	2799		

LEGEND

SYMBOLS	LINETYPES
SIGN (SINGLE SIDED)	CONTOUR - MAJOR (0.5m)
FIRE HYDRANT	CONTOUR - MINOR (0.1m)
FIREPLUG MARKER REFLECTOR	EDGE OF BITUMEN
WATER SERVICE	GUTTER INVERT
WATER CONNECTION	SPOON DRAIN INVERT
ELECTRICAL SERVICE	KERB
SEWER SERVICE	EDGE OF FOOTPATH
COMMUNICATIONS SERVICE	NATURAL SURFACE
DOMESTIC OUTLET	FENCE
LIGHT POLE	STORMWATER PIT
STORMWATER INSPECTION COVER	STORMWATER U/G
PIPE INVERT	SEWER U/G SERVICE
SURVEY STATION	WATER U/G SERVICE

NOTES

1. SURVEY COMPLETED 11th JANUARY 2021.
2. SURVEY BY KB.
3. ALL COORDINATES AND LEVELS ARE BASED ON SURVEY INFORMATION PROVIDED BY NEO GROUP.
4. CONTOUR INTERVAL 0.1m.
5. ALL DETAILS ARE CORRECT AT TIME OF SURVEY.

FOR CONTINUATION REFER SHEET 3

RIVERVIEW DRIVE

DARLING STREET

RESERVE

RESERV

PSM△ 30.45

S173△ 30.66

KERB TRANSITION

KERB TRANSITION

73-16
SIDE ENTRY PIT 1900 x 600
LID LEVEL: 30.65
PIT DEPTH : 1.75
375ø RCP OUT - INV RL: 28.900 (TO 73-15)

49 50 51 52 53 48

FOR CONTINUATION REFER SHEET 1

TOTAL CONSTRUCTION SURVEYS PTY LTD
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Amendments

Rev.	Subject	Date	Init.

ASCONSTRUCTED SURVEY
RIVERVIEW SUBDIVISION STAGE 2
ANGLE VALE

Prepared For: NEO GROUP

Plan No. 2799/AC/01

Rev No.

Scale 1:200 (A1)

Sheet 2 of 3

Plan Details

Surveyed:	KB	Date:11th Jan 2021
Drawn:	KB	Date:12th Jan 2021
Checked:		Date:
Job No:	2799	

LEGEND

SYMBOLS

- SIGN (SINGLE SIDED)
- FIRE HYDRANT
- FIREPLUG MARKER REFLECTOR
- WATER SERVICE
- WATER CONNECTION
- ELECTRICAL SERVICE
- SEWER SERVICE
- COMMUNICATIONS SERVICE
- DOMESTIC OUTLET
- LIGHT POLE
- STORMWATER INSPECTION COVER
- PIPE INVERT
- SURVEY STATION

LINETYPES

- CONTOUR - MAJOR (0.5m)
- CONTOUR - MINOR (0.1m)
- EDGE OF BITUMEN
- GUTTER INVERT
- SPOON DRAIN INVERT
- KERB
- EDGE OF FOOTPATH
- NATURAL SURFACE
- FENCE
- STORMWATER PIT
- STORMWATER U/G
- SEWER U/G SERVICE
- WATER U/G SERVICE

NOTES

1. SURVEY COMPLETED 11th JANUARY 2021.
2. SURVEY BY KB.
3. ALL COORDINATES AND LEVELS ARE BASED ON SURVEY INFORMATION PROVIDED BY NEO GROUP.
4. CONTOUR INTERVAL 0.1m.
5. ALL DETAILS ARE CORRECT AT TIME OF SURVEY.

RESERVE

MC20

STAGE 5

73-14
JUNCTION BOX 900 x 900
LID LEVEL: 30.27
PIT DEPTH : 1.72
375ø RCP IN - INV RL: 28.550
350ø RIPLOC OUT - INV RL: 28.550 (TO FUTURE STAGE)

TEMPORARY RIPLOC PIPE END
350ø RIPLOC OUTLET - INV RL: 28.35

73-15
JUNCTION BOX 900 x 900
LID LEVEL: 30.37
PIT DEPTH : 1.68
375ø RCP IN - INV RL: 28.691
375ø RCP OUT - INV RL: 28.691 (TO 73-14)

STAGE 4

EXISTING STAGE 1A

FOR CONTINUATION REFER SHEET 2

FOR CONTINUATION REFER SHEET 1

TOTAL CONSTRUCTION SURVEYS PTY LTD
3 MARLOW ROAD
KESWICK SA 5035
M 0400 882 614
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F 08 8297 6600
tcs@tcsurveys.com
A.B.N. 12 154 678 008

Amendments

Rev.	Subject	Date	Init.

ASCONSTRUCTED SURVEY
RIVERVIEW SUBDIVISION STAGE 2
ANGLE VALE

Prepared For: NEO GROUP

Plan No. 2799/AC/01

Rev No.

Scale 1:200 (A1)

Sheet 3 of 3

Plan Details

Surveyed:	KB	Date:	11th Jan 2021
Drawn:	KB	Date:	12th Jan 2021
Checked:		Date:	
Job No:	2799		

Appendix D – Site Photos

KOBELCO
RAM
Conplant

Conplant