



CIVIL GEOTECHNICAL SERVICES
ABN 26 474 013 724
PO Box 678 Croydon Vic 3136
Telephone: 9723 0744 Facsimile: 9723 0799

28th February 2024

Our Reference: 23260:NB1798

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
EYNESBURY – STAGE 18A (EYNESBURY)**

Please find attached our Report No's 23260/R001 to 23260/R004 which relate to the field density testing that was conducted within the filled allotments at the above subdivision. The level 1 inspections and associated field density commenced in March 2023 and was completed in April 2023.

The inspections and testing of the earthworks was undertaken in general accordance with the Level 1 requirements of AS 3798 - Guidelines on Earthworks for Commercial and Residential Developments.

The site inspection and testing was performed by experienced geotechnicians from this office. Any areas that were deemed unsatisfactory were reworked and retested under their supervision. The testing was performed to the relevant Australian Standards and the accompanying test reports carry NATA endorsement. The attached compaction results, which were located randomly throughout the fill profile, are considered to be representative of the bulk fill materials that were placed across the reported allotments by Winslow Constructors during the aforementioned period. The approximate locations of the field density tests can be seen on the attached plan (Figure 1).

We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

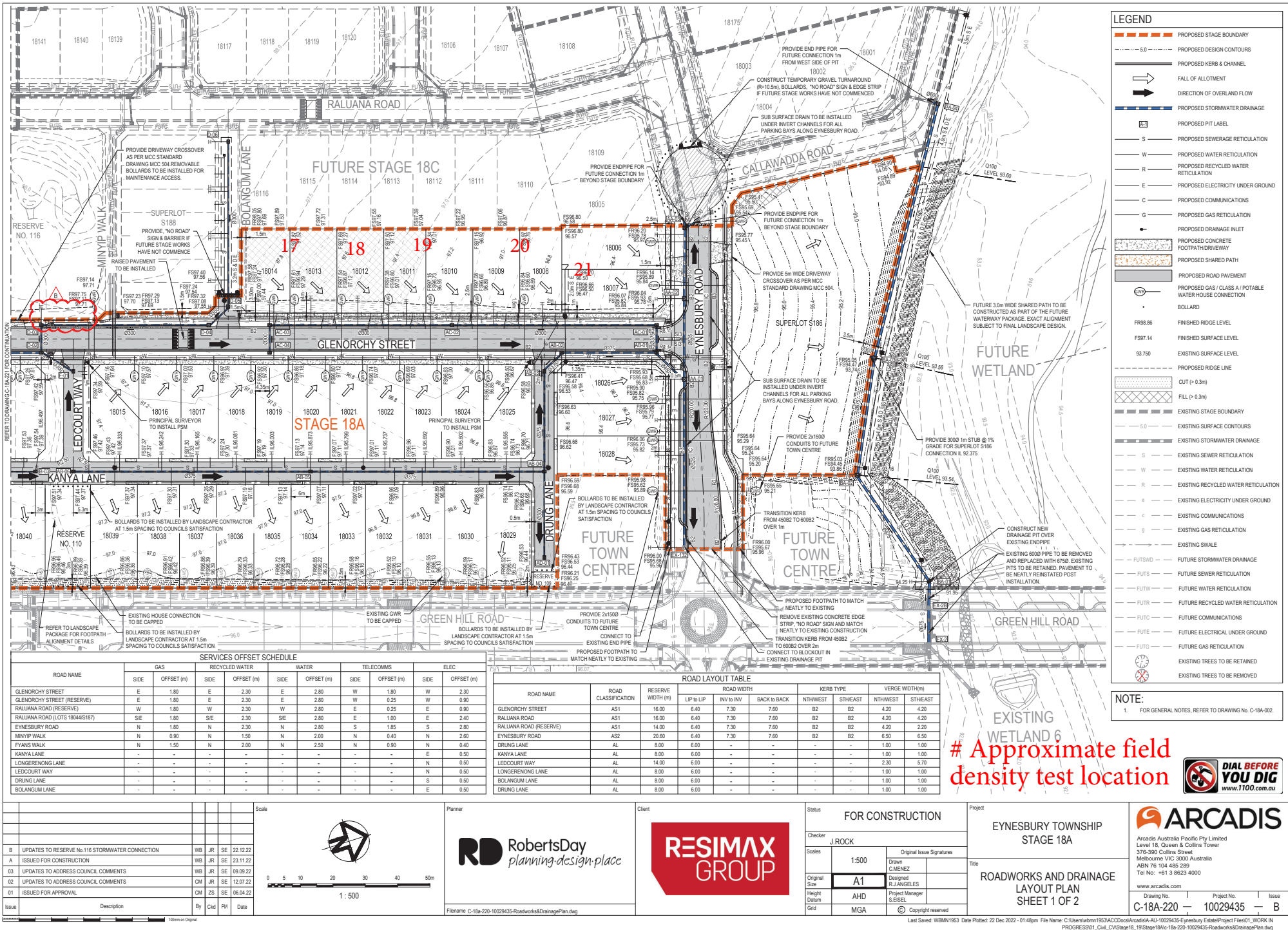
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in blue ink, appearing to read 'Nick Brock', is written over a faint, light blue circular stamp.

Nick Brock

FIGURE 1 (1 of 2)



LEGEND

- PROPOSED STAGE BOUNDARY
- PROPOSED DESIGN CONTOURS
- PROPOSED KERB & CHANNEL
- FALL OF ALLOTMENT
- DIRECTION OF OVERLAND FLOW
- PROPOSED STORMWATER DRAINAGE
- PROPOSED PIT LABEL
- PROPOSED SEWERAGE RETICULATION
- PROPOSED WATER RETICULATION
- PROPOSED RECYCLED WATER RETICULATION
- PROPOSED ELECTRICITY UNDER GROUND
- PROPOSED COMMUNICATIONS
- PROPOSED GAS RETICULATION
- PROPOSED DRAINAGE INLET
- PROPOSED CONCRETE FOOTPATH/DRIVEWAY
- PROPOSED SHARED PATH
- PROPOSED ROAD PAVEMENT
- PROPOSED GAS / CLASS A / POTABLE WATER HOUSE CONNECTION
- BOLLARD
- FINISHED SURFACE LEVEL
- EXISTING SURFACE LEVEL
- EXISTING RIDGE LINE
- CUT (> 0.3m)
- FILL (> 0.3m)
- EXISTING STAGE BOUNDARY
- EXISTING DESIGN CONTOURS
- EXISTING STORMWATER DRAINAGE
- EXISTING SEWER RETICULATION
- EXISTING WATER RETICULATION
- EXISTING RECYCLED WATER RETICULATION
- EXISTING ELECTRICITY UNDER GROUND
- EXISTING COMMUNICATIONS
- EXISTING GAS RETICULATION
- EXISTING SWALE
- EXISTING STORMWATER DRAINAGE
- EXISTING SEWER RETICULATION
- EXISTING WATER RETICULATION
- EXISTING RECYCLED WATER RETICULATION
- EXISTING COMMUNICATIONS
- EXISTING ELECTRICITY UNDER GROUND
- EXISTING GAS RETICULATION
- EXISTING TREES TO BE RETAINED
- EXISTING TREES TO BE REMOVED

NOTE:
1. FOR GENERAL NOTES, REFER TO DRAWING No. C-18A-022

Approximate field density test location



SERVICES OFFSET SCHEDULE

ROAD NAME	GAS		RECYCLED WATER		WATER		TELECOMMS		ELEC	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
GLENORCHY STREET	E	1.80	E	2.30	E	2.80	E	1.80	W	2.30
GLENORCHY STREET (RESERVE)	E	1.80	E	2.30	E	2.80	W	0.25	W	0.90
RALUANA ROAD (RESERVE)	W	1.80	W	2.30	W	2.80	E	0.25	E	0.90
RALUANA ROAD (LOTS 1804/1817)	S/E	1.80	S/E	2.30	S/E	2.80	E	1.00	E	2.40
EYNEBURY ROAD	N	1.80	N	2.30	N	2.80	S	1.85	S	2.80
MYNIP WALK	N	0.90	N	1.50	N	2.00	N	0.40	N	2.60
FYANS WALK	N	1.50	N	2.00	N	2.50	N	0.90	N	0.40
KANYA LANE	-	-	-	-	-	-	-	-	E	0.50
LONGERENONG LANE	-	-	-	-	-	-	-	-	N	0.50
LED COURT WAY	-	-	-	-	-	-	-	-	N	0.50
DRING LANE	-	-	-	-	-	-	-	-	S	0.50
BOLANGUM LANE	-	-	-	-	-	-	-	-	E	0.50

ROAD LAYOUT TABLE

ROAD NAME	ROAD CLASSIFICATION	RESERVE WIDTH (m)	ROAD WIDTH			KERB TYPE		VERGE WIDTH (m)	
			LIP to LIP	INV to INV	BACK to BACK	NTHWEST	STHEAST	NTHWEST	STHEAST
GLENORCHY STREET	AS1	16.00	6.40	7.30	7.60	B2	B2	4.20	4.20
RALUANA ROAD	AS1	16.00	6.40	7.30	7.60	B2	B2	4.20	4.20
RALUANA ROAD (RESERVE)	AS1	14.00	6.40	7.30	7.60	B2	B2	4.20	2.20
EYNEBURY ROAD	AS2	20.00	6.40	7.30	7.60	B2	B2	6.50	6.50
DRING LANE	AL	8.00	6.00	-	-	-	-	1.00	1.00
KANYA LANE	AL	8.00	6.00	-	-	-	-	1.00	1.00
LED COURT WAY	AL	14.00	6.00	-	-	-	-	2.30	5.70
LONGERENONG LANE	AL	8.00	6.00	-	-	-	-	1.00	1.00
BOLANGUM LANE	AL	8.00	6.00	-	-	-	-	1.00	1.00
DRING LANE	AL	8.00	6.00	-	-	-	-	1.00	1.00

Scale: 1:500

Issue Log:

Issue	Description	By	Ckd	Pki	Date
A	UPDATES TO RESERVE No. 116 STORMWATER CONNECTION	WB	JR	SE	22.12.22
B	ISSUED FOR CONSTRUCTION	WB	JR	SE	23.11.22
02	UPDATES TO ADDRESS COUNCIL COMMENTS	WB	JR	SE	09.09.22
03	UPDATES TO ADDRESS COUNCIL COMMENTS	CM	JR	SE	12.07.22
01	ISSUED FOR APPROVAL	CM	ZS	SE	06.04.22

Planner: **RD** RobertsDay *planning design place*

Client: **RESIMAX GROUP**

Filename: C:\18a-220-1029435-Roadworks&DrainagePlan.dwg

Status: **FOR CONSTRUCTION**

Checker: **J.ROCK**

Scales: 1:500

Original Size: **A1**

Height Datum: **AHD**

Grid: **MGA**

Project: **EYNEBURY TOWNSHIP STAGE 18A**

Title: **ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 1 OF 2**

Project Manager: **S.ESSEL**

Original Issue Signatures: **DRING, CMEZ, R.JANGELES**

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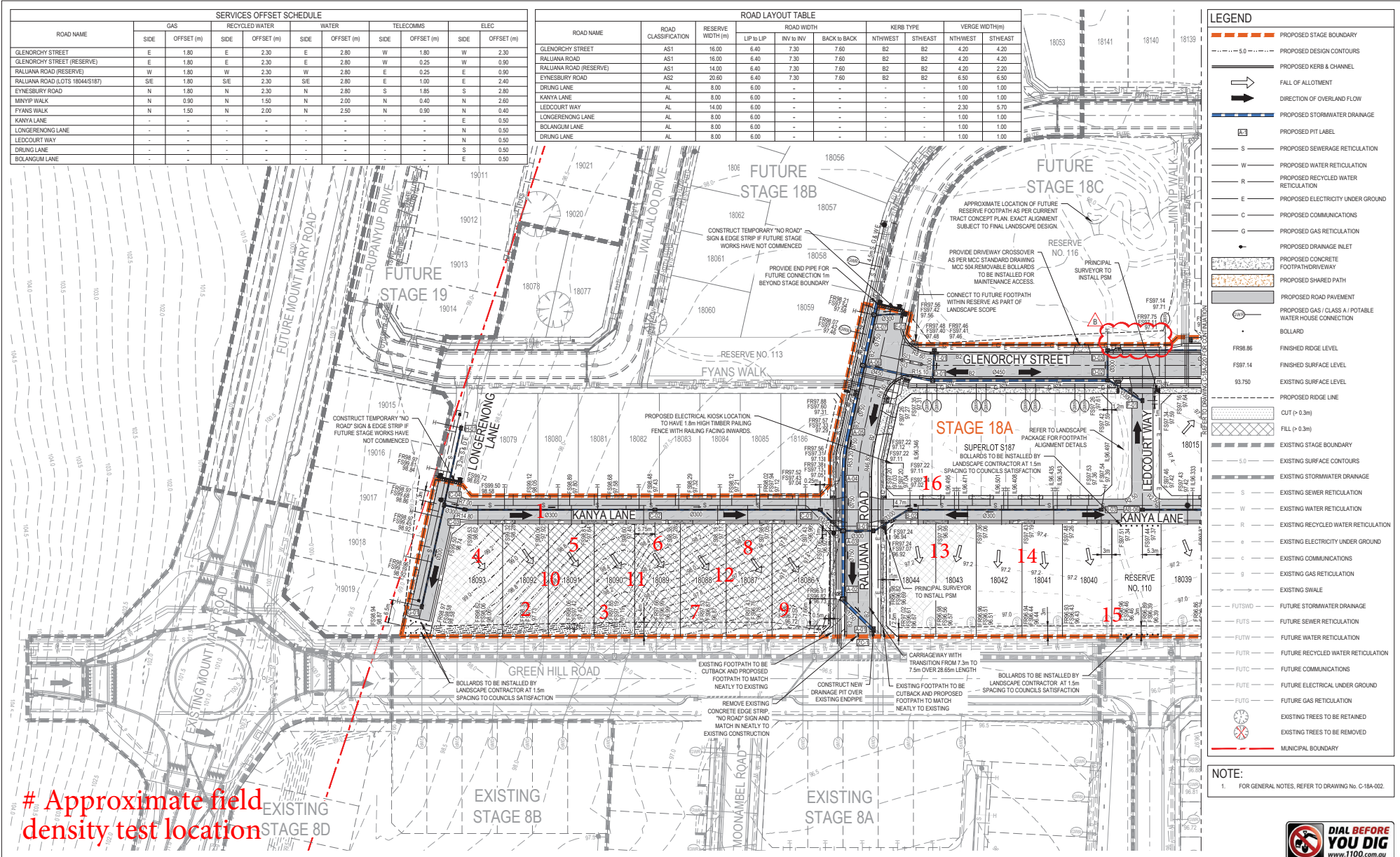
Arcadis Australia Pacific Pty Limited
Level 18, Queen & Collins Tower
376-390 Collins Street
Melbourne VIC 3000 Australia
ABN 76 104 485 289
Tel No: +61 3 8623 4000

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Drawing No: **C-18A-220** | Project No: **10029435** | Issue: **B**

Last Saved: WBM1963 Date Plotted: 22 Dec 2022 - 01:48pm File Name: C:\Users\wbm1963\ACCDocs\Arcadis\AU-10029435-Eynesbury Estate\Project File\01_WORK IN PROGRESS\01_Civil_CVStage18_19_Stage18A-18a-220-1029435-Roadworks&DrainagePlan.dwg

FIGURE 1 (2 of 2)



<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>Issue</th> <th>Description</th> <th>By</th> <th>Ckd</th> <th>PKI</th> <th>Date</th> </tr> <tr> <td>B</td> <td>UPDATES TO RESERVE No. 116 STORMWATER CONNECTION</td> <td>WB</td> <td>JR</td> <td>SE</td> <td>22.12.22</td> </tr> <tr> <td>A</td> <td>ISSUED FOR CONSTRUCTION</td> <td>WB</td> <td>JR</td> <td>SE</td> <td>23.12.22</td> </tr> <tr> <td>02</td> <td>UPDATES TO ADDRESS COUNCIL COMMENTS</td> <td>WB</td> <td>JR</td> <td>SE</td> <td>09.09.22</td> </tr> <tr> <td>03</td> <td>UPDATES TO ADDRESS COUNCIL COMMENTS</td> <td>CM</td> <td>JR</td> <td>SE</td> <td>12.07.22</td> </tr> <tr> <td>01</td> <td>ISSUED FOR APPROVAL</td> <td>CM</td> <td>ZS</td> <td>SE</td> <td>06.04.22</td> </tr> </table>	Issue	Description	By	Ckd	PKI	Date	B	UPDATES TO RESERVE No. 116 STORMWATER CONNECTION	WB	JR	SE	22.12.22	A	ISSUED FOR CONSTRUCTION	WB	JR	SE	23.12.22	02	UPDATES TO ADDRESS COUNCIL COMMENTS	WB	JR	SE	09.09.22	03	UPDATES TO ADDRESS COUNCIL COMMENTS	CM	JR	SE	12.07.22	01	ISSUED FOR APPROVAL	CM	ZS	SE	06.04.22	<p>Scale</p>  <p>1 : 500</p>	 <p>Planner</p>	 <p>Client</p>	<p>Status: FOR CONSTRUCTION</p> <p>Checker: J.ROCK</p> <p>Scales: 1:500</p> <p>Original Size: A1</p> <p>Height Datum: AHD</p> <p>Grid: MGA</p>	<p>Project: EYNEBURY TOWNSHIP STAGE 18A</p> <p>Title: ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 2 OF 2</p>	 <p>Arcadis Australia Pacific Pty Limited Level 18, Queen & Collins Tower 376-390 Collins Street Melbourne VIC 3000 Australia ABN 76 104 485 289 Tel No: +61 3 8623 4000 www.arcadis.com</p> <p>Drawing No: C-18A-221 - 1029435 - Issue B</p>
Issue	Description	By	Ckd	PKI	Date																																					
B	UPDATES TO RESERVE No. 116 STORMWATER CONNECTION	WB	JR	SE	22.12.22																																					
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01	ISSUED FOR APPROVAL	CM	ZS	SE	06.04.22																																					

Filename: C:\Users\1902435-Roadworks\DrainagePlan.dwg
Last Saved: WBM1953 Date Plotted: 22 Dec 2022 - 01:45pm File Name: C:\Users\1902435-Roadworks\DrainagePlan\Project File\01_WORK IN PROGRESS\01_Civil_CVStage18_19_Stage18A\c-18a-220-1029435-Roadworks\DrainagePlan.dwg



COMPACTION ASSESSMENT

Job No 23260
 Report No 23260/R001
 Date Issued 26/04/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 18A	Date tested	30/03/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:42
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1			
Approximate depth below FSL						
Measurement depth	mm	175	175	175	-	-
Field wet density	t/m ³	1.78	1.79	1.92	-	-
Field moisture content	%	21.1	23.2	22.8	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	3	-	-	-
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	-	-
Percent of oversize material	wet	0	0	0	-	-
Peak Converted Wet Density	t/m ³	1.81	1.83	1.92	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	23.5	25.5	25.0	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.0% dry	-	-	-
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R _{HD})	%	98.5	98.0	100.0	-	-
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Material description

No 1 - 3 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
 Accredited for compliance with
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 23260
 Report No 23260/R002
 Date Issued 05/04/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18A	Date tested	03/04/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	09:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	4	5	6	7	8	9	
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	
Approximate depth below FSL							
Measurement depth	mm	175	175	175	175	175	
Field wet density	t/m ³	1.94	1.92	1.83	1.89	1.96	1.89
Field moisture content	%	22.4	24.3	20.9	18.4	19.9	18.2

Test procedure AS 1289.5.7.1

Test No	4	5	6	7	8	9	
Compactive effort	Standard						
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	
Percent of oversize material	wet	0	0	0	0	0	
Peak Converted Wet Density	t/m ³	2.00	1.95	1.88	1.93	1.99	1.91
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	24.5	24.5	22.5	21.0	22.5	20.5

Moisture Variation From Optimum Moisture Content	2.0% dry	0.0%	1.5% dry	2.5% dry	2.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R _{HD})	%	97.0	98.0	97.0	98.0	98.5	98.5
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Material description

No 4 - 9 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
 Accredited for compliance with
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 23260
 Report No 23260/R003
 Date Issued 19/04/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18A	Date tested	06/04/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:00
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	10	11	12	13	14	15
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m ³	2.01	2.04	1.96	2.05	2.05
Field moisture content	%	24.4	23.0	25.1	25.0	21.6

Test procedure AS 1289.5.7.1

Test No	10	11	12	13	14	15
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m ³	2.02	2.07	2.06	2.07	2.06
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	27.0	25.5	27.5	27.0	24.0

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.5% dry	2.0% dry	2.5% dry	2.5% dry
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R _{HD})	%	99.5	98.5	95.0	98.5	97.0	99.5
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Material description

No 10 - 15 Clay Fill

AVRLOT HILF V1.10 MAR 13



NATA Accredited Laboratory No 9909
 Accredited for compliance with
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 23260
 Report No 23260/R004
 Date Issued 18/04/23

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 18A	Date tested	12/04/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 11:13
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	16	17	18	19	20	21
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1
Approximate depth below FSL						
Measurement depth	mm	175	175	175	175	175
Field wet density	t/m ³	2.06	2.05	2.09	1.97	2.00
Field moisture content	%	25.8	22.0	23.1	23.6	29.8

Test procedure AS 1289.5.7.1

Test No	16	17	18	19	20	21
Compactive effort	Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0
Peak Converted Wet Density	t/m ³	2.06	2.06	2.12	2.05	2.05
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	28.5	24.5	25.0	24.5	32.5

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	1.5% dry	1.0% dry	2.5% dry	0.5% wet
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density and moisture ratio results relate only to the soil to the depth of test and not to the full depth of the layer

Density Ratio (R _{HD})	%	100.0	99.5	98.5	96.5	97.5	99.0
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Material description

No 16 - 21 Clay Fill

AVRLOT HILF V1.10 MAR 13



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 Accredited for compliance with
 ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry