



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

28<sup>th</sup> February 2024

Our Reference: 23262:NB1800

Winslow Constructors Pty Ltd  
50 Barry Road  
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

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

Please find attached our Report No's 23262/R001 to 23262/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 May 2023 and was completed in July 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).

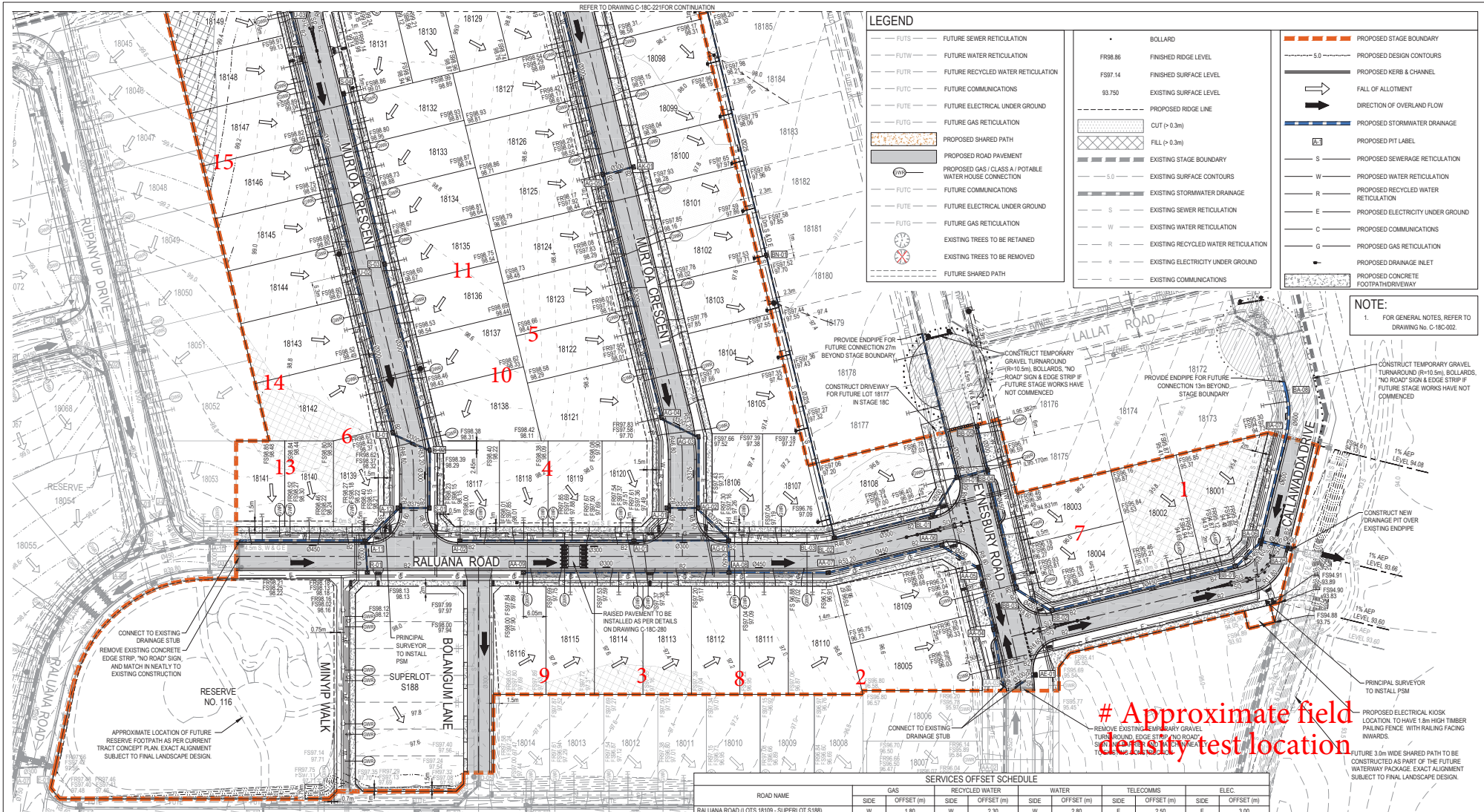
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

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

Nick Brock

# FIGURE 1 (1 of 2)

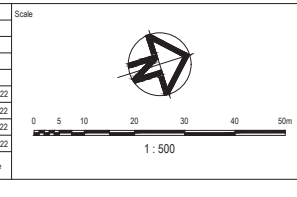


# Approximate field density test location

ROAD NAME	SERVICES OFFSET SCHEDULE									
	GAS		RECYCLED WATER		WATER		TELECOMMS		ELEC.	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
RALLANA ROAD (LOTS 18109 - SUPERLOT S188)	W	1.80	W	2.30	W	2.80	E	2.50	E	3.00
RALLANA ROAD (RESERVE No. 116)	W	1.80	W	2.30	W	2.80	E	0.25	E	0.90
EYNEBURY ROAD	N	1.80	N	2.30	N	2.80	S	1.85	S	2.80
MOYREISK CLOSE	W	3.90	W	2.30	W	2.90	W	1.80	W	2.25
MURTOA CRESCENT (LOTS 18121-18127 & 18132-18138)	S	1.80	S	2.30	S	2.80	N	1.80	N	2.30
MURTOA CRESCENT (LOTS 18128-18131)	E	1.80	E	2.30	E	2.80	W	0.50	W	1.00
CALLAWADDA DRIVE (EAST)	W	1.80	W	2.30	W	2.80	E	1.80	E	2.30
CALLAWADDA DRIVE (NORTH)	W	1.80	W	2.25	W	2.70	W	3.20	W	3.70
MINYIP WALK	N	1.80	N	2.30	N	2.80	N	3.30	N	3.80
BOLANGUM LANE	-	-	-	-	-	-	-	-	N	0.50
RESERVE No. 115	-	-	-	-	-	-	-	-	E	0.75

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
RALLANA ROAD (LOTS 18109-SUPERLOT S188)	AS2	16.00	6.40	7.30	7.60	B2	B2	4.35	4.35
RALLANA ROAD (RESERVE No. 116)	AS2	16.00	6.40	7.30	7.60	B2	B2	4.35	4.35
EYNEBURY ROAD	AS2	20.00	6.40	7.30	7.60	B2	B2	6.50	6.50
MOYREISK CLOSE	AL	13.50	5.50	-	-	-	-	7.00	1.00
MURTOA CRESCENT (LOTS 18121-18127 & 18132-18138)	AS1	16.00	6.40	7.30	7.60	B2	B2	4.35	4.35
MURTOA CRESCENT (LOTS 18128-18131)	AS1	14.00	6.40	7.30	7.60	B2	B2	2.35	4.35
CALLAWADDA DRIVE	AS1	16.00	6.40	7.30	7.60	B2	B2	4.35	4.35

Issue	Description	By	Chk	Pln	Date
A	ISSUED FOR CONSTRUCTION	WB	JR	SE	01.12.22
02	UPDATES TO ADDRESS COUNCIL COMMENTS	MMR	JR	SE	02.10.22
03	UPDATES TO ADDRESS COUNCIL COMMENTS	CM	JR	SE	02.08.22
04	ISSUED FOR APPROVAL	CM	ZS	SE	08.04.22



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

Client: **RESIMAX GROUP**

Filename: C:\16c-220-10029435-Roadworks&DrainagePlan.dwg

Status: **FOR CONSTRUCTION**

Checker: **J.ROCK**

Scales: 1:500

Original Size: **A1**

Height: AHD

Grid: MGA

Project: **EYNEBURY TOWNSHIP STAGE 18C**

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

Project No.: 10029435

Issue: A

**ARCADIS**

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

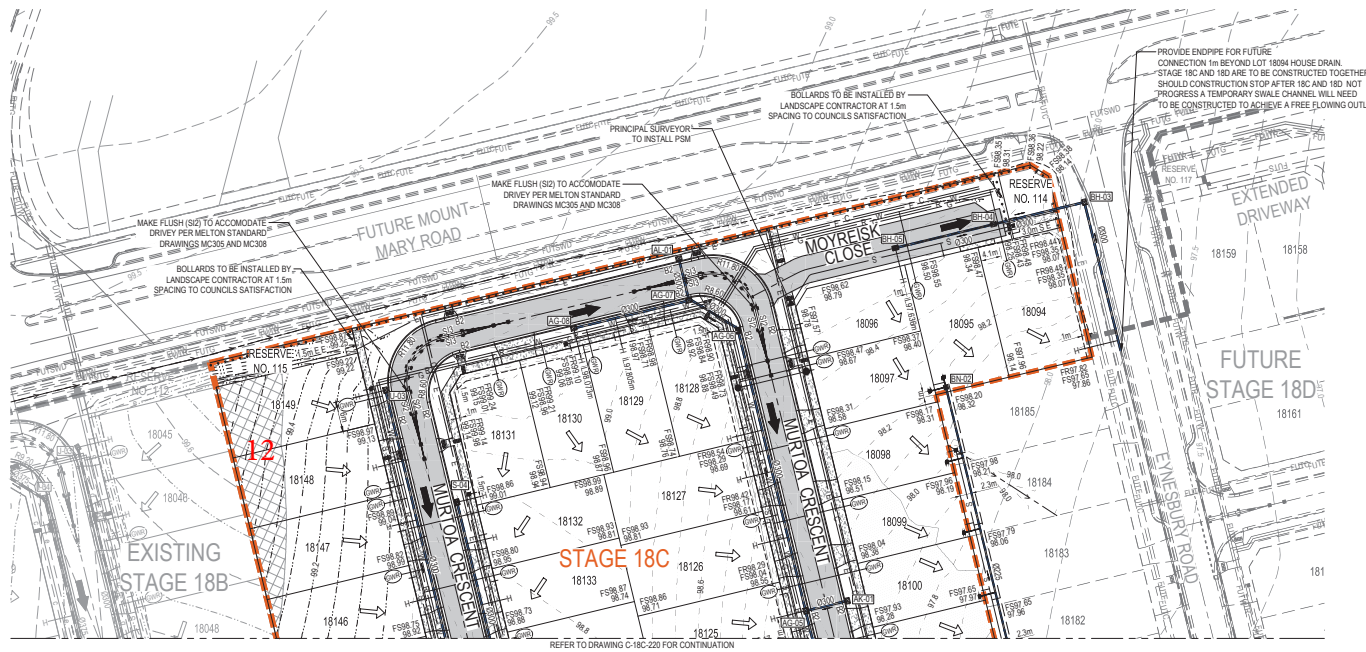
www.arcadis.com

Project No.: 10029435

Issue: A

C-18C-220 - 10029435

# FIGURE 1 (2 of 2)



# Approximate field density test location

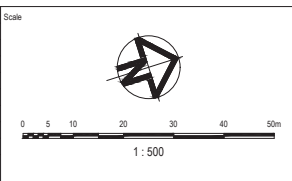
**LEGEND**

- PROPOSED STAGE BOUNDARY
- PROPOSED DESIGN CONTOURS
- PROPOSED KERB & CHANNEL
- FALL OF ALLOTMENT
- DIRECTION OF OVERLAND FLOW
- PROPOSED STORMWATER DRAINAGE
- PROPOSED P11 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 RIDGE LEVEL
- FINISHED SURFACE LEVEL
- EXISTING SURFACE LEVEL
- PROPOSED RIDGE LINE
- CUT (> 0.3m)
- FILL (> 0.3m)
- EXISTING STAGE BOUNDARY
- EXISTING SURFACE 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
- FUTURE STORMWATER DRAINAGE
- FUTURE SEWER RETICULATION
- FUTURE WATER RETICULATION
- FUTURE RECYCLED WATER RETICULATION
- FUTURE COMMUNICATIONS
- FUTURE ELECTRICAL UNDER GROUND
- FUTURE GAS RETICULATION
- EXISTING TREES TO BE RETAINED
- EXISTING TREES TO BE REMOVED
- FUTURE SHARED PATH

**NOTE:**

- FOR GENERAL NOTES, REFER TO DRAWING NO. C-18C-002.

Issue	Description	By	Ckd	Pld	Date
A	ISSUED FOR CONSTRUCTION	WB	JR	SE	01.12.22
03	UPDATES TO ADDRESS COUNCIL COMMENTS	MMR	JR	SE	02.10.22
02	UPDATES TO ADDRESS COUNCIL COMMENTS	CM	JR	SE	02.06.22
01	ISSUED FOR APPROVAL	CM	ZS	SE	08.04.22



Planner

Client

Filename: C-18C-221-10029435-Roadworks&DrainagePlan.dwg

Status	FOR CONSTRUCTION	
Checker	J.ROCK	
Scale	1:500	Original Issue Signatures
Original Size	A1	Drawn: CMENEZ Designed: R.J.ANGELES
Height Datum	AHD	Project Manager: S.EISEL
Grid	MGA	Copyright reserved

Project

EYNEBURY TOWNSHIP  
STAGE 18C

Title

ROADWORKS AND DRAINAGE  
LAYOUT PLAN  
SHEET 2 OF 2

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

Drawing No. C-18C-221 - 10029435  
Project No. 10029435  
Issue A





# COMPACTION ASSESSMENT

Job No 23262  
 Report No 23262/R001  
 Date Issued 22/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18C	Date tested	05/05/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:00
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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 <sup>3</sup>	1.83	1.84	1.80	-	-
Field moisture content	%	20.8	24.0	25.5	-	-

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 <sup>3</sup>	1.88	1.86	1.84	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	22.5	23.5	28.0	-	-

Moisture Variation From Optimum Moisture Content	1.5% dry	0.0%	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 <sub>HD</sub> )	%	97.0	99.0	98.5	-	-
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Material description

No 1 - 3 Clay Fill
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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 23262  
 Report No 23262/R002  
 Date Issued 22/05/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18C	Date tested	09/05/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:06
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	4	5	6	-	-	-
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 <sup>3</sup>	2.04	2.03	2.03	-	-
Field moisture content	%	25.8	23.7	26.1	-	-

Test procedure AS 1289.5.7.1

Test No	4	5	6	-	-	-
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 <sup>3</sup>	2.07	2.03	2.02	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	28.5	26.5	29.0	-	-

Moisture Variation From Optimum Moisture Content	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 <sub>HD</sub> )	%	98.5	100.0	100.5	-	-
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Material description

No 4 - 6 Clay Fill
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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 23262  
 Report No 23262/R003  
 Date Issued 11/07/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18C	Date tested	06/07/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 08:30
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No		7	8	9	10	11	12
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	175
Field wet density	t/m <sup>3</sup>	1.80	1.78	1.78	1.77	1.77	1.75
Field moisture content	%	26.4	27.4	26.9	28.5	28.2	25.6

Test procedure AS 1289.5.7.1

Test No		7	8	9	10	11	12
Compactive effort		Standard					
Oversize rock retained on sieve	mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material	wet	0	0	0	0	0	0
Peak Converted Wet Density	t/m <sup>3</sup>	1.86	1.84	1.82	1.79	1.78	1.78
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-	-
Optimum Moisture Content	%	28.5	29.0	29.0	31.0	29.0	28.0

Moisture Variation From Optimum Moisture Content	2.0% dry	1.5% dry	2.0% dry	2.5% dry	1.0% 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 <sub>HD</sub> )	%	97.0	97.0	98.0	99.0	99.5	98.5
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Material description

No 7 - 12 Clay Fill
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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 23262  
 Report No 23262/R004  
 Date Issued 11/07/23

## CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 18C	Date tested	06/07/23
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	08:30
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### Test procedure AS 1289.2.1.1 & 5.8.1

Test No	13	14	15	-	-	-
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 <sup>3</sup>	1.86	1.84	1.85	-	-
Field moisture content	%	28.8	31.2	30.7	-	-

### Test procedure AS 1289.5.7.1

Test No	13	14	15	-	-	-
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 <sup>3</sup>	1.88	1.87	1.87	-	-
Adjusted Peak Converted Wet Density	t/m <sup>3</sup>	-	-	-	-	-
Optimum Moisture Content	%	31.5	32.0	32.5	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	1.0% 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 <sub>HD</sub> )	%	99.0	98.5	99.0	-	-
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### Material description

No 13 - 15 Clay Fill
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AVRLOT HILF V1.10 MAR 13



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Approved Signatory : Justin Fry