



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

5th September 2024

Our Reference: 24325:NB1993

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
EYNESBURY – STAGE 17A (EYNESBURY)

Please find attached our Report No's 24325/R001 to 24325/R005 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 testing commenced in May 2024 and was completed in July 2024.

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).

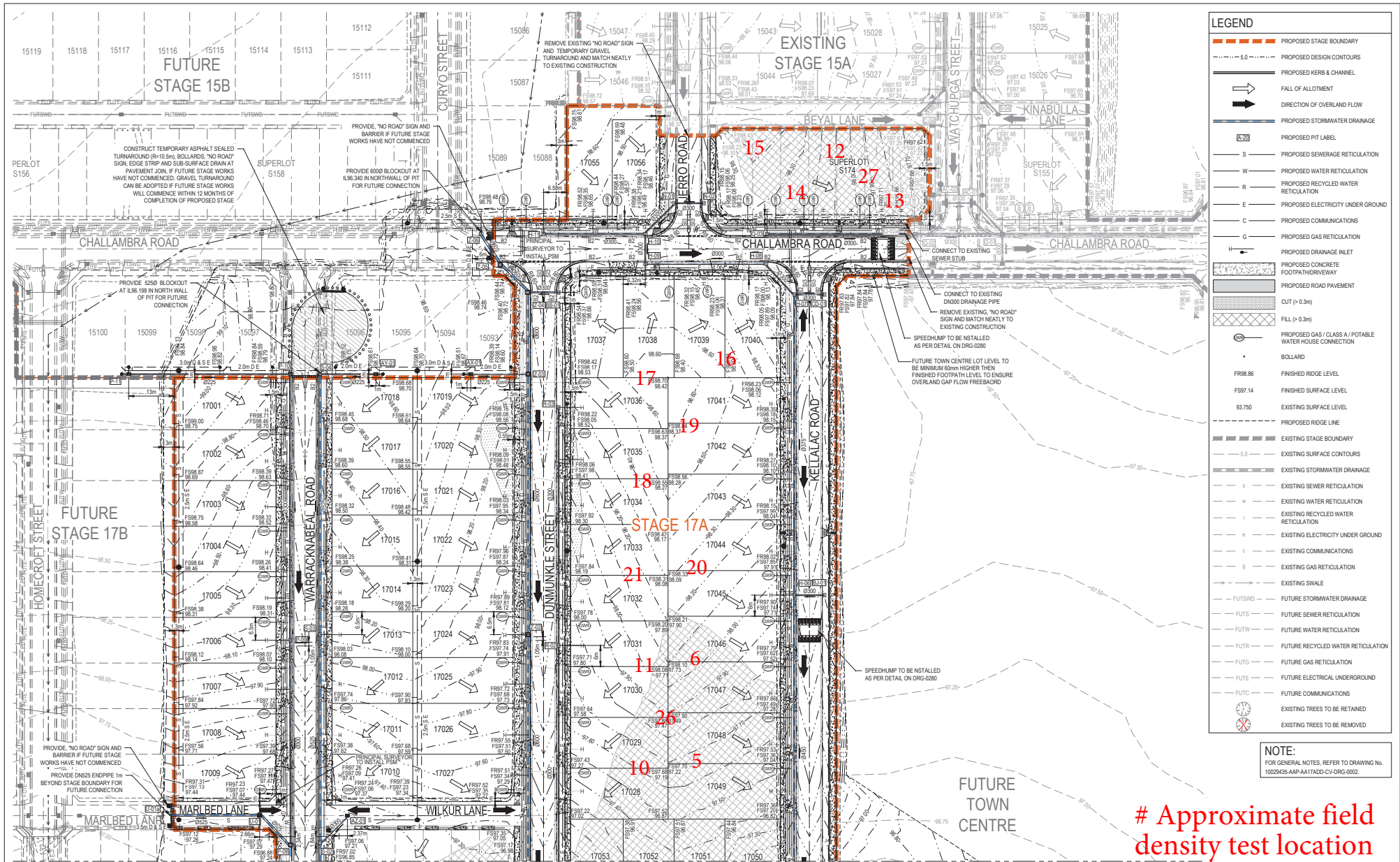
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

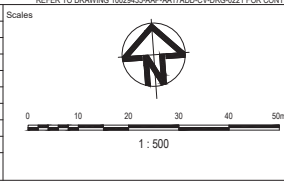
Civil Geotechnical Services

Nick Brock

FIGURE 1 (1 of 2)



Issue	Description	DR	CH	VE	Date
05	UPDATES AS PER COUNCIL COMMENTS	CM	JR	SE	25.09.23
04	UPDATES AS PER COUNCIL COMMENTS	CM	JR	SE	20.06.23
03	UPDATES PER DESIGN COORDINATION	RC	JR	SE	26.05.23
02	UPDATES TO LANWAYS AND STORMWATER	MR	JR	SE	14.04.23
01	ISSUED FOR INFORMATION	MDR	JR	SE	05.12.22



RD RobertsDay
planning-design-place

RESIMAX
GROUP

FOR INFORMATION NOT TO BE USED FOR CONSTRUCTION	
© Copyright reserved	
Original Issue Signatures	Original Size
Drawn: M.IGNACIO	A1
Designed: K.REGLOS	Height: AHD
Project Manager: S.EISEL	Grid: MGA
Verified: J.ROCK	

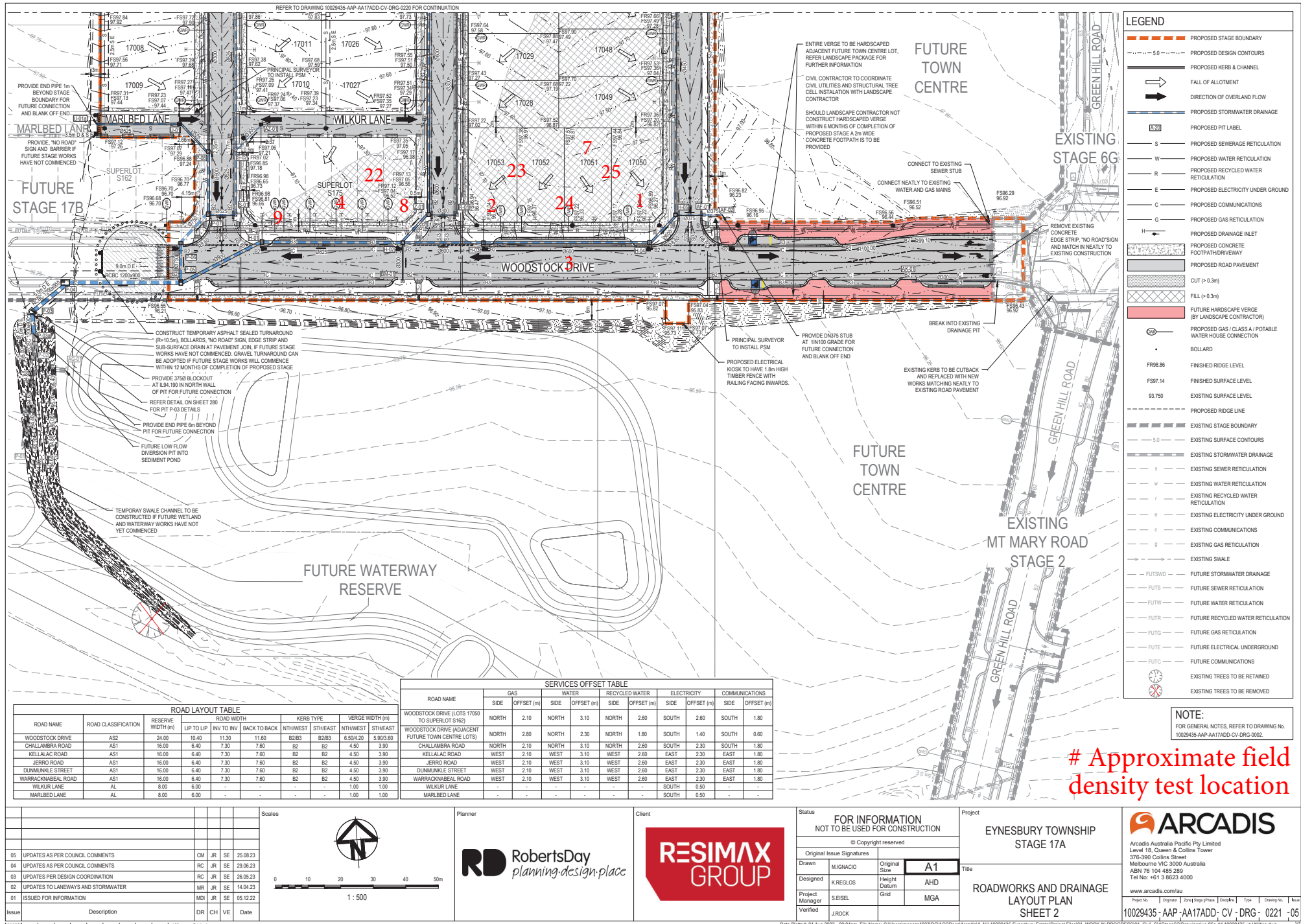
Project	YNESBURY TOWNSHIP STAGE 17A
Title	ROADWORKS AND DRAINAGE LAYOUT PLAN SHEET 1

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 18, Queen & Collins Tower
375-380 Collins Street
Melbourne VIC 3000 Australia
ABN 76 104 485 289
Tel No: +61 3 8623 4000
www.arcadis.com/au

Project No. | Designer | Drawing Title | Date | Type | Drawing No. | Scale

10029435 - AAP - AA17ADD - CV - DRG - 0220 - 05

FIGURE 1 (2 of 2)



Issue	Description	DR	CH	VE	Date
05	UPDATES AS PER COUNCIL COMMENTS	CM	JR	SE	25.09.23
04	UPDATES AS PER COUNCIL COMMENTS	CM	JR	SE	20.06.23
03	UPDATES PER DESIGN COORDINATION	RC	JR	SE	26.05.23
02	UPDATES TO LANEWAYS AND STORMWATER	MR	JR	SE	14.04.23
01	ISSUED FOR INFORMATION	MDR	JR	SE	05.12.22

Planner
RD RobertsDay
planning-design-place

Client
RESIMAX
GROUP

Status
FOR INFORMATION
NOT TO BE USED FOR CONSTRUCTION

Original Issue Signatures

Drawn	M.IGNACIO	Original Size	A1
Designed	K.REGLOS	Height	AHD
Project Manager	S.EISEL	Grid	MGA
Verified	J.ROCK		

Project
EYNESBURY TOWNSHIP
STAGE 17A

Title
ROADWORKS AND DRAINAGE
LAYOUT PLAN
SHEET 2

ARCADIS
Arcadis Australia Pacific Pty Limited
Level 18, Queen & Collins Tower
375-380 Collins Street
Melbourne VIC 3000 Australia
ABN 76 104 485 289
Tel No: +61 3 8623 4000
www.arcadis.com.au

Project No. | Designer | Drawing Phase | Discipline | Type | Drawing No. | Issue
10029435 - AAP - AA17ADD - CV - DRG - 0221 - 05



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24325
Report No 24325/R001
Date Issued 18/06/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 17A	Date tested	20/05/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:32
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	4	5	6
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 ³	1.76	1.75	1.77	1.80	1.79	1.76
Field moisture content %	22.6	23.7	24.0	25.4	23.8	21.9

Test procedure AS 1289.5.7.1

Test No	1	2	3	4	5	6
Compactive effort	Standard					
Override rock retained on sieve mm	19.0	19.0	19.0	19.0	19.0	19.0
Percent of override material wet	0	0	0	0	0	0
Peak Converted Wet Density t/m ³	1.81	1.79	1.79	1.82	1.84	1.78
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	25.0	26.0	26.5	27.5	26.0	24.5

Moisture Variation From Optimum Moisture Content	2.5% dry	2.5% dry	2.5% dry	2.0% dry	2.0% 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_{HD})	%	97.5	98.0	98.5	99.0	97.0	99.5
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Material description

No 1 - 6 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

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24325
Report No 24325/R002
Date Issued 18/06/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 17A	Date tested	21/05/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:37
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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 ³	1.80	1.82	1.82	1.85	1.80	1.81
Field moisture content %	23.4	21.9	20.7	22.9	23.0	21.7

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 ³	1.82	1.86	1.84	1.89	1.82	1.80
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	26.0	21.0	23.5	25.5	25.0	24.0

Moisture Variation From Optimum Moisture Content	2.5% dry	1.0% wet	2.5% dry	2.5% dry	2.0% 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_{HD})	%	99.0	98.0	99.0	97.5	99.5	100.0
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Material description

No 7 - 12 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

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24325
Report No 24325/R003
Date Issued 26/06/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 17A	Date tested	23/05/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:41
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	13	14	15	16	17	18
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 ³	1.81	1.76	1.83	1.87	1.91	1.91
Field moisture content %	22.6	20.2	22.4	24.6	20.8	21.7

Test procedure AS 1289.5.7.1

Test No	13	14	15	16	17	18
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 ³	1.84	1.80	1.86	1.92	1.95	1.92
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	25.0	20.5	24.0	24.5	23.0	24.0

Moisture Variation From Optimum Moisture Content	2.0% dry	0.0%	1.5% dry	0.0%	2.0% 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_{HD})	%	98.0	98.0	98.5	97.5	98.0	99.5
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Material description

No 13 - 18 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

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24325
Report No 24325/R004
Date Issued 19/06/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 17A	Date tested	24/05/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:46
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	19	20	21	-	-	-
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	1.92	1.95	1.85	-	-	-
Field moisture content %	26.9	25.1	21.5	-	-	-

Test procedure AS 1289.5.7.1

Test No	19	20	21	-	-	-
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	1.96	1.98	1.88	-	-	-
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	29.5	27.0	23.5	-	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	1.5% 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})	%	98.0	98.0	98.5	-	-	-
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Material description

No 19 - 21 Clay Fill

AVRLOT HILF V1.10 MAR 13



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ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 24325
Report No 24325/R005
Date Issued 30/07/24

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 17A	Date tested	25/07/24
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:44
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	22	23	24	25	26	27
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 ³	2.04	1.99	1.98	1.91	1.96	1.91
Field moisture content %	21.7	18.4	19.5	17.6	20.9	18.2

Test procedure AS 1289.5.7.1

Test No	22	23	24	25	26	27
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 ³	2.09	2.07	2.03	1.99	2.01	1.98
Adjusted Peak Converted Wet Density t/m ³	-	-	-	-	-	-
Optimum Moisture Content %	22.0	20.5	20.0	20.0	21.0	20.5

Moisture Variation From Optimum Moisture Content	0.5% dry	2.0% dry	0.5% dry	2.5% dry	0.0% 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_{HD})	%	97.5	96.0	97.5	96.0	97.5	96.5
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Material description

No 22 - 27 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