



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

18th April 2024

Our Reference: 24036:NB1844

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
FOREST RIDGE – STAGE 1 (STRATHFIELDSAYE)**

Please find attached our Report No's 24036/R001 to 24036/R003 which relate to the field density testing that was conducted within the filled allotments of the above subdivision. The level 1 inspections and associated field density testing was performed in February 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).

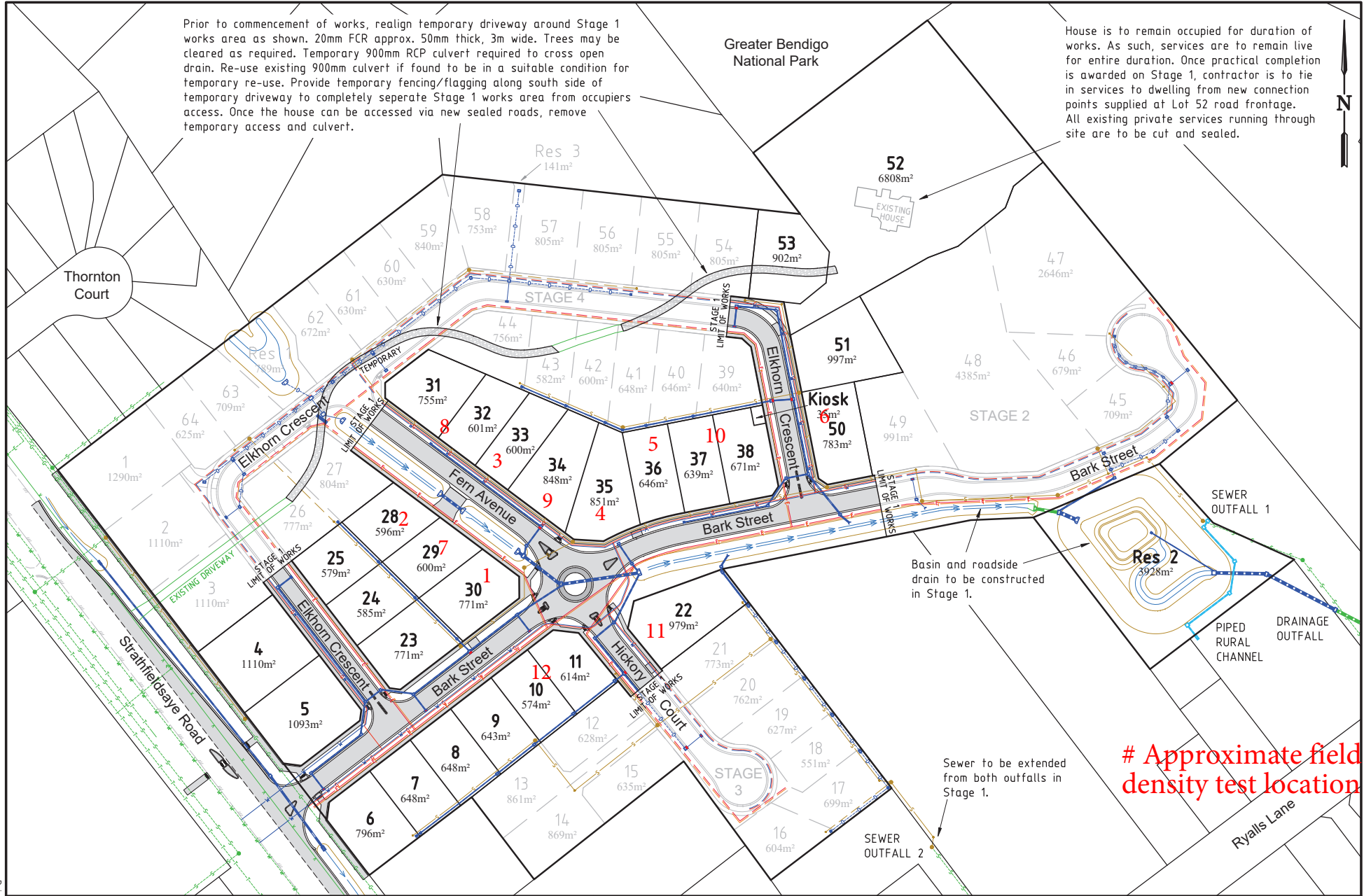
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1



Prior to commencement of works, realign temporary driveway around Stage 1 works area as shown. 20mm FCR approx. 50mm thick, 3m wide. Trees may be cleared as required. Temporary 900mm RCP culvert required to cross open drain. Re-use existing 900mm culvert if found to be in a suitable condition for temporary re-use. Provide temporary fencing/flagging along south side of temporary driveway to completely separate Stage 1 works area from occupiers access. Once the house can be accessed via new sealed roads, remove temporary access and culvert.

House is to remain occupied for duration of works. As such, services are to remain live for entire duration. Once practical completion is awarded on Stage 1, contractor is to tie in services to dwelling from new connection points supplied at Lot 52 road frontage. All existing private services running through site are to be cut and sealed.

Basin and roadside drain to be constructed in Stage 1.

Sewer to be extended from both outfalls in Stage 1.

Approximate field density test location

Printed: 2024-07-15 14:03:07

6			
5			
4	Issued for Construction	15/01/2024	Designed J.Sens Jul 2023
3	Further CoGB Comments	20/12/2023	Checked R.Dawborn Jul 2023
2	Response to CoGB Comments	04/12/2023	Approved A.Mertens Jul 2023 PE0007923
1	Revised Staging	24/07/2023	
0	Draft	16/02/2023	
Ver	Revision Description	Date	

Notes/Legend	

TERRACO
Civil Engineers
Project Managers
Development Consultants

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Scale (m)

NTS
All lengths are in metres
and all levels are to Australian Height Datum
(Original Sheet Size is A3)

Drawing file: 22173_03_Servicing.dwg LTO Ref: PS907238K

City of Greater Bendigo - Strathfieldsaye					
Brown Property Group					
Forest Ridge - Stage One					
Overall Servicing Plan					
Council Ref:	Water Auth. Ref:	Terraco Ref:	Version	Sheet	
AM/887/2021/A	ME 22072	22173	4	6 of 56	



COMPACTION ASSESSMENT

Job No 24036
 Report No 24036/R001
 Date Issued 02/03/24

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	FOREST RIDGE - STAGE 1	Date tested	21/02/24
Location	STRATHFIELDSAYE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:43
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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	m	0.4	0.2	0.2			
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t/m ³	2.12	2.11	2.11	-	-	-
Field moisture content	%	18.6	18.7	18.3	-	-	-

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	2.13	2.16	2.14	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	18.5	20.5	20.5	-	-	-

Moisture Variation From Optimum Moisture Content		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})	%	99.5	98.0	98.5	-	-	-
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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 24036
 Report No 24036/R002
 Date Issued 02/03/24

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	FOREST RIDGE - STAGE 1	Date tested	22/02/24
Location	STRATHFIELDSAYE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 07:45
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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	m	0.2	0.2	fsl			
Measurement depth	mm	175	175	175	-	-	-
Field wet density	t/m ³	2.12	2.12	2.09	-	-	-
Field moisture content	%	21.9	21.3	20.4	-	-	-

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 ³	2.18	2.17	2.14	-	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	23.0	23.0	22.5	-	-	-

Moisture Variation From Optimum Moisture Content		1.0% 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})	%	97.5	98.0	98.0	-	-	-
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Material description

No 4 - 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

Job No 24036
 Report No 24036/R003
 Date Issued 19/03/24

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	FOREST RIDGE - STAGE 1	Date tested	29/02/24
Location	STRATHFIELDSAYE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:57
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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	m	fsl	fsl	fsl	fsl	fsl	fsl
Measurement depth	mm	175	175	175	175	175	175
Field wet density	t/m ³	2.06	2.03	2.05	2.10	2.10	2.08
Field moisture content	%	17.9	16.9	17.1	17.9	18.7	17.9

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	2.09	2.09	2.08	2.13	2.14	2.09
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-	-
Optimum Moisture Content	%	20.0	19.0	18.5	18.0	20.5	20.5

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	1.5% dry	0.0%	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})	%	98.5	97.0	98.5	98.5	98.0	99.5
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Material description

No 7 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13



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