



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

10th March 2021

Our Reference: 20583:NB899

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
EYNESBURY – STAGE 8C (EYNESBURY)**

Please find attached our Report No's 20583/R001 to 20583/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 testing commenced in November 2020 and was completed in March 2021.

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).

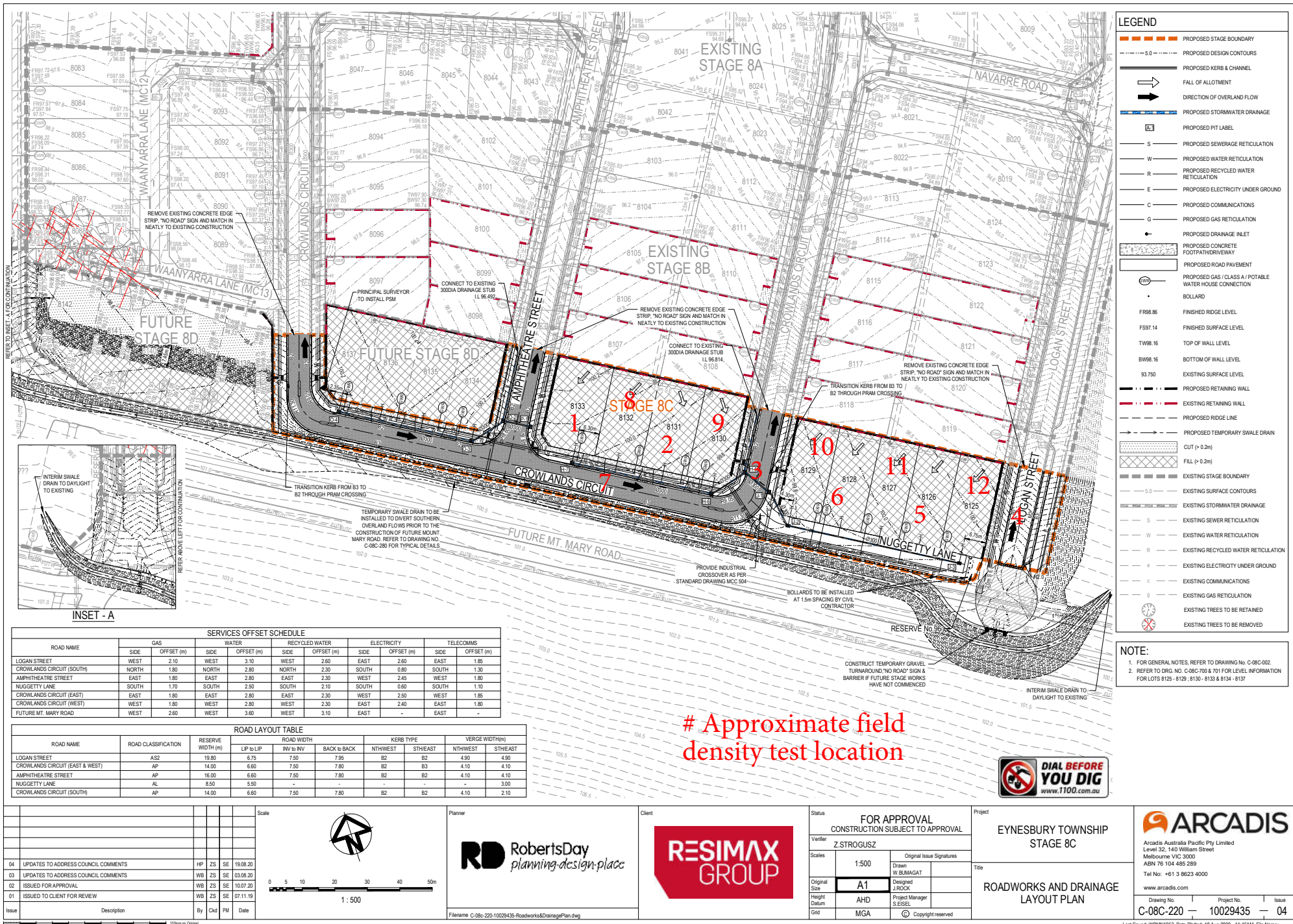
Please contact the undersigned if you require any additional information.

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



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 ROAD PAVEMENT
	PROPOSED GAS / CLASS A / POTABLE WATER HOUSE CONNECTION
	BOLLARD
	FR88.86 FINISHED RIDGE LEVEL
	FS97.14 FINISHED SURFACE LEVEL
	TW8.16 TOP OF WALL LEVEL
	BW8.16 BOTTOM OF WALL LEVEL
	93.750 EXISTING SURFACE LEVEL
	PROPOSED RETAINING WALL
	EXISTING RETAINING WALL
	PROPOSED RIDGE LINE
	PROPOSED TEMPORARY SWALE DRAIN
	CUT (p 0.2m)
	FILL (p 0.2m)
	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 TREES TO BE RETAINED
	EXISTING TREES TO BE REMOVED

NOTE:
 1. FOR GENERAL NOTES, REFER TO DRAWING NO. C-08C-002.
 2. REFER TO DRG. NO. C-08C-700 & 701 FOR LEVEL INFORMATION FOR LOTS 8125 - 8129, 8130 - 8133 & 8134 - 8137.

Approximate field density test location



SERVICES OFFSET SCHEDULE										
ROAD NAME	GAS		WATER		RECYCLED WATER		ELECTRICITY		TELECOMMS	
	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)	SIDE	OFFSET (m)
LOGAN STREET	WEST	2.10	WEST	3.10	WEST	2.60	EAST	2.60	EAST	1.86
CROWLANDS CIRCUIT (SOUTH)	NORTH	1.80	NORTH	2.80	NORTH	2.30	SOUTH	0.80	SOUTH	1.30
AMPHITHEATRE STREET	EAST	1.80	EAST	2.80	EAST	2.30	WEST	2.45	WEST	1.80
NUGGETTY LANE	SOUTH	1.70	SOUTH	2.50	SOUTH	2.10	SOUTH	0.60	SOUTH	1.10
CROWLANDS CIRCUIT (EAST)	EAST	1.80	EAST	2.80	EAST	2.30	WEST	2.50	WEST	1.86
CROWLANDS CIRCUIT (WEST)	WEST	1.80	WEST	2.80	WEST	2.30	EAST	2.40	EAST	1.80
FUTURE MT. MARY ROAD	WEST	2.60	WEST	3.60	WEST	3.10	EAST	-	EAST	-

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	STEAST	NTHWEST	STEAST
LOGAN STREET	AS2	19.80	6.75	7.50	7.95	B2	B2	4.90	4.90
CROWLANDS CIRCUIT (EAST & WEST)	AP	14.00	6.60	7.50	7.80	B2	B3	4.10	4.10
AMPHITHEATRE STREET	AP	16.00	6.60	7.50	7.80	B2	B2	4.10	4.10
NUGGETTY LANE	AL	8.50	5.50	-	-	-	-	-	3.00
CROWLANDS CIRCUIT (SOUTH)	AP	14.00	6.60	7.50	7.80	B2	B2	4.10	2.10

Scale: 1:500

Issue	Description	By	Ckd	Pln	Date
04	UPDATES TO ADDRESS COUNCIL COMMENTS	HP	ZS	SE	19.08.20
03	UPDATES TO ADDRESS COUNCIL COMMENTS	WB	ZS	SE	03.08.20
02	ISSUED FOR APPROVAL	WB	ZS	SE	10.07.20
01	ISSUED TO CLIENT FOR REVIEW	WB	ZS	SE	07.11.19

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

Client: **RESIMAX GROUP**

Filename: C-08c-220-10029435-Roadworks&DrainagePlan.dwg

Status: FOR APPROVAL
CONSTRUCTION SUBJECT TO APPROVAL

Verifier: 2.STROGUSZ

Scales: 1:500

Original Size: A1

Height Datum: AHD

Grid: MGA

Project: EYNEBURY TOWNSHIP STAGE 8C

Title: ROADWORKS AND DRAINAGE LAYOUT PLAN

Project No.: 10029435

Issue No.: 04

ARCADIS

ArCADIS Australia Pacific Pty Limited
 Level 32, 140 William Street
 Melbourne VIC 3000
 ABN 76 104 465 289
 Tel No: +61 3 8623 4000
 www.arcadis.com

Project No.: 10029435
 Issue No.: 04

Last Saved: WBM1953 Date Plotted: 18 Aug 2020 - 11:46AM File Name: V1



COMPACTION ASSESSMENT

Job No 20583
 Report No 20583/R001
 Date Issued 03/03/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 8C	Date tested	30/11/20
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time:	09:30
---------	------------	-----------------	--------	-------	-------

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	1.83	1.78	1.82	-	-
Field moisture content	%	24.1	27.9	28.5	-	-

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 ³	1.92	1.87	1.86	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	22.0	26.5	29.0	-	-

Moisture Variation From Optimum Moisture Content	2.0% wet	1.5% wet	0.5% dry	-	-	-
--	----------	----------	----------	---	---	---

Density Ratio (R _{HD})	%	95.0	95.5	98.0	-	-
-----------------------------------	---	------	------	------	---	---

Material description

No 1 - 3 Clay Fill

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20583
 Report No 20583/R002
 Date Issued 14/12/2020

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	WS
Project	EYNESBURY - STAGE 8C	Date tested	01/12/20
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 10:30
----------------	-------------------	-----------------	--------	-------------

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/m³	1.79	1.81	1.77	-	-	-
Field moisture content %	29.9	28.6	29.8	-	-	-

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/m³	1.80	1.81	1.86	-	-	-
Adjusted Peak Converted Wet Density t/m³	-	-	-	-	-	-
Optimum Moisture Content %	32.0	30.0	29.5	-	-	-

Moisture Variation From Optimum Moisture Content	0.0%	1.5% dry	0.5% wet	-	-	-
---	------	-------------	-------------	---	---	---

Density Ratio (R_{HD})	99.5	100.0	95.5	-	-	-
---	-------------	--------------	-------------	---	---	---

Material description

No 4 - 6 Clay Fill						
--------------------	--	--	--	--	--	--

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20583
 Report No 20583/R003
 Date Issued 06/03/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 8C	Date tested	02/03/21
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 17:40
---------	------------	-----------------	--------	-------------

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	7	8	9	-	-	-
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	1.76	1.73	1.72	-	-
Field moisture content	%	18.5	20.5	18.3	-	-

Test procedure AS 1289.5.7.1

Test No	7	8	9	-	-	-
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	1.80	1.81	1.82	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	20.0	23.0	20.0	-	-

Moisture Variation From Optimum Moisture Content	1.5% dry	1.5% dry	1.5% dry	-	-	-
--	----------	----------	----------	---	---	---

Density Ratio (R _{HD})	%	98.0	95.5	95.0	-	-
-----------------------------------	---	------	------	------	---	---

Material description

No 7 - 9 Clay Fill

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

Job No 20583
 Report No 20583/R004
 Date Issued 10/03/2021

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	BS
Project	EYNESBURY - STAGE 8C	Date tested	03/03/21
Location	EYNESBURY	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:48
---------	------------	-----------------	--------	-------------

Test procedure AS 1289.2.1.1 & 5.8.1

Test No	10	11	12	-	-	-
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	1.71	1.71	1.70	-	-
Field moisture content	%	18.1	18.3	18.7	-	-

Test procedure AS 1289.5.7.1

Test No	10	11	12	-	-	-
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	1.78	1.73	1.75	-	-
Adjusted Peak Converted Wet Density	t/m ³	-	-	-	-	-
Optimum Moisture Content	%	20.0	20.5	21.0	-	-

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.5% dry	-	-	-
--	----------	----------	----------	---	---	---

Density Ratio (R _{HD})	%	95.5	99.0	97.5	-	-
-----------------------------------	---	------	------	------	---	---

Material description

No 10 - 12 Clay Fill

AVRLOT HILF V1.10 MAR 13



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025 - Testing

Accreditation No 9909

Approved Signatory : Justin Fry