



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

17th May 2018

Our Reference: 18126:NB197

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
CORNERSTONE – STAGE 9 (WYNDHAM VALE)**

Please find attached our Report No's 18126/R001 and 18126/R002 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 February 2018 and was completed in March 2018.

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 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).

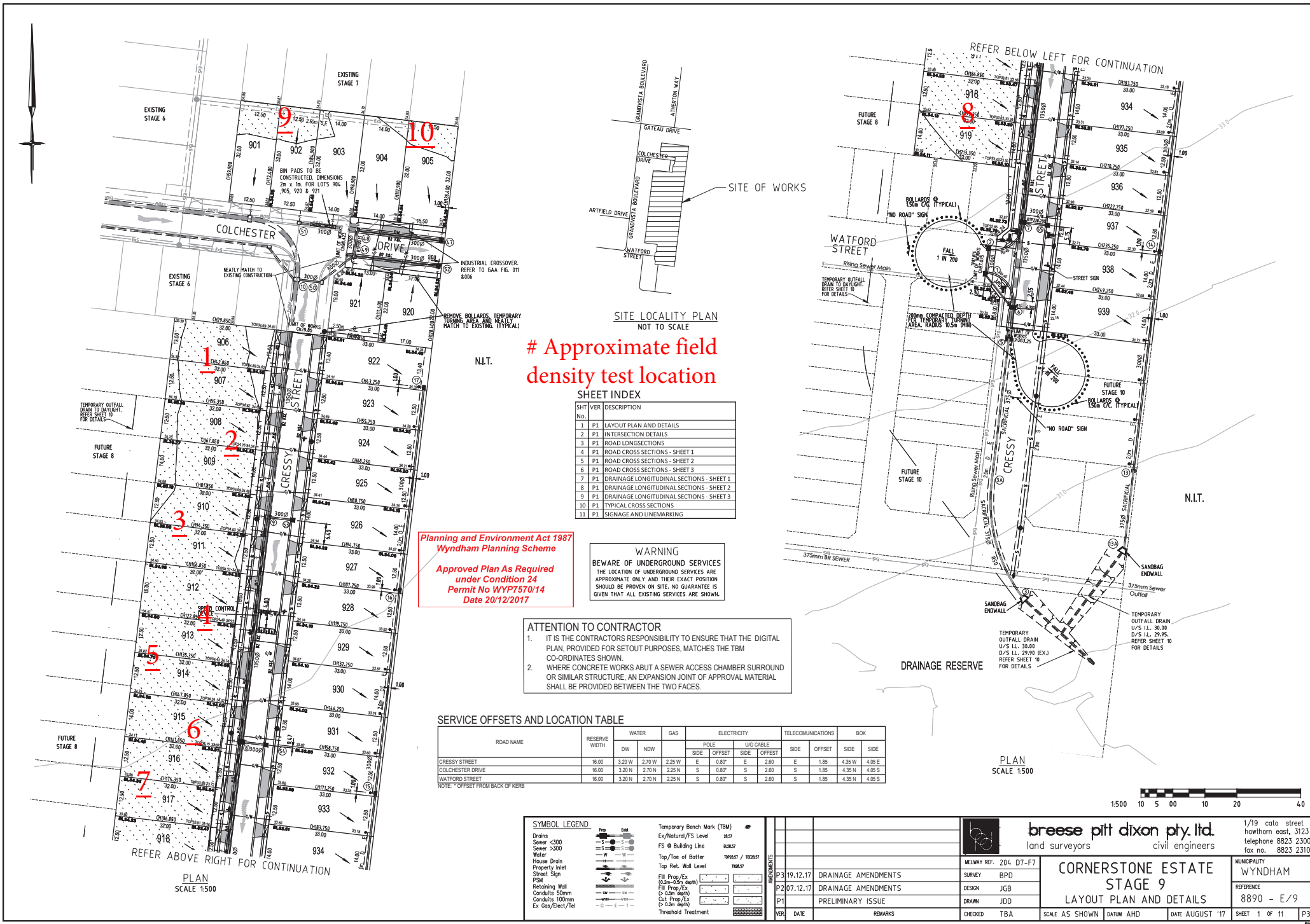
Please contact the undersigned if you require any additional information.

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



SITE LOCALITY PLAN
NOT TO SCALE

Approximate field density test location

SHEET INDEX

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5	P1	ROAD CROSS SECTIONS - SHEET 2
6	P1	ROAD CROSS SECTIONS - SHEET 3
7	P1	DRAINAGE LONGITUDINAL SECTIONS - SHEET 1
8	P1	DRAINAGE LONGITUDINAL SECTIONS - SHEET 2
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11	P1	SIGNAGE AND LINEMARKING

Planning and Environment Act 1987
Wyndham Planning Scheme
Approved Plan As Required
under Condition 24
Permit No WYP7570/14
Date 20/12/2017

WARNING
BEWARE OF UNDERGROUND SERVICES
THE LOCATION OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

ATTENTION TO CONTRACTOR

- IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM CO-ORDINATES SHOWN.
- WHERE CONCRETE WORKS ABOUT A SEWER ACCESS CHAMBER SURROUND OR SIMILAR STRUCTURE, AN EXPANSION JOINT OF APPROVAL MATERIAL SHALL BE PROVIDED BETWEEN THE TWO FACES.

SERVICE OFFSETS AND LOCATION TABLE

ROAD NAME	RESERVE WIDTH	WATER		GAS		ELECTRICITY		TELECOMMUNICATIONS		BOK		
		DW	NDW	DW	NDW	POLE SIDE	UG CABLE SIDE	OFFSET	OFFSET	SIDE	SIDE	
CRESSY STREET	16.00	3.20 W	2.70 W	2.25 W	E	0.80*	E	2.60	E	1.85	4.35 W	4.05 E
COLCHESTER DRIVE	16.00	3.20 N	2.70 N	2.25 N	S	0.80*	S	2.60	S	1.85	4.35 N	4.05 S
WATFORD STREET	16.00	3.20 N	2.70 N	2.25 N	S	0.80*	S	2.60	S	1.85	4.35 N	4.05 S

NOTE: * OFFSET FROM BACK OF KERB

SYMBOL LEGEND

Drains	Ex/Natural/FS Level	FS Building Line	Top/Toe of Batter	Top Ret. Wall Level	Fill Prop/Ex (0.2m-0.5m depth)	Fill Prop/Ex (>0.5m depth)	Out Prop/Ex (>0.2m depth)	Threshold Treatment
Sewer <300	FS >300	Water	House Drain	Property Inlet	Street Sign	PSM	Retaining Wall	Conduits 50mm
Conduits 100mm	Ex Gas/Elect/Tel	Temporary Bench Mark (TBM)	Ex/Natural/FS Level	FS Building Line	Top/Toe of Batter	Top Ret. Wall Level	Fill Prop/Ex (0.2m-0.5m depth)	Fill Prop/Ex (>0.5m depth)
Conduits 100mm	Ex Gas/Elect/Tel	Temporary Bench Mark (TBM)	Ex/Natural/FS Level	FS Building Line	Top/Toe of Batter	Top Ret. Wall Level	Fill Prop/Ex (0.2m-0.5m depth)	Fill Prop/Ex (>0.5m depth)

breese pitt dixon pty. ltd.
land surveyors civil engineers

MELWAY REF. 204 D7-F7

NO.	DATE	REVISIONS	CHECKED	DRAWN	DESIGN	SURVEY
P3	19.12.17	DRAINAGE AMENDMENTS	TBA	JDD	JGB	BPD
P2	07.12.17	DRAINAGE AMENDMENTS	TBA	JDD	JGB	BPD
P1		PRELIMINARY ISSUE	TBA	JDD	JGB	BPD

CORNERSTONE ESTATE
STAGE 9
LAYOUT PLAN AND DETAILS

MUNICIPALITY WYNDHAM
REFERENCE 8890 - E/9

1/19 cato street hawthorn east, 3123 telephone 8823 2300 fax no. 8823 2310

SCALE AS SHOWN DATUM AHD DATE AUGUST '17 SHEET 1 OF 11 P3



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 18126
 Report No 18126/R001
 Date Issued 15/05/2018

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	JB
Project	CORNERSTONE - STAGE 9	Date tested	28/02/18
Location	WYNDHAM VALE	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 09:33
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	3	4	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1	REFER TO FIGURE 1		
Approximate depth below FSL						
Measurement depth <i>mm</i>	175	175	175	175	-	-
Field wet density <i>t/m³</i>	1.75	1.74	1.70	1.71	-	-
Field moisture content %	26.2	25.9	25.1	26.0	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	3	4	-	-
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	-	-
Percent of oversize material <i>wet</i>	0	0	0	0	-	-
Peak Converted Wet Density <i>t/m³</i>	1.79	1.79	1.74	1.79	-	-
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	-	-	-	-
Optimum Moisture Content %	28.5	28.0	27.0	28.0	-	-

Moisture Variation From Optimum Moisture Content	2.5% dry	2.0% dry	2.0% dry	2.0% dry	-	-
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Density Ratio (R_{HD})	%	97.5	97.5	97.5	95.5	-	-
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Material description

No 1 - 4 Clay Fill



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 18126
 Report No 18126/R002
 Date Issued 17/05/2018

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	B G G
Project	CORNERSTONE - STAGE 9	Date tested	06/03/18
Location	WERRIBEE	Checked by	JHF

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

Test No	5	6	7	8	9	10
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 <i>mm</i>	175	175	175	175	175	175
Field wet density <i>t/m³</i>	1.79	1.73	1.70	1.73	1.80	1.74
Field moisture content %	27.2	27.3	23.9	27.9	24.7	23.3

Test procedure AS 1289.5.7.1

Test No	5	6	7	8	9	10
Compactive effort	Standard					
Oversize rock retained on sieve <i>mm</i>	19.0	19.0	19.0	19.0	19.0	19.0
Percent of oversize material <i>wet</i>	0	0	4	0	18	10
Peak Converted Wet Density <i>t/m³</i>	1.76	1.78	1.70	1.75	1.71	1.72
Adjusted Peak Converted Wet Density <i>t/m³</i>	-	-	1.72	-	1.80	1.77
Optimum Moisture Content %	29.0	29.5	26.0	30.5	27.0	26.0

Moisture Variation From Optimum Moisture Content	2.0% dry	2.0% dry	2.5% dry	2.5% dry	2.0% dry	2.5% dry
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Density Ratio (R_{HD})	%	101.5	97.0	99.0	98.5	100.5	98.0
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Material description

No 5 - 10 Clay Fill



The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/National standards. Accredited for compliance to ISO/IEC 17025. Accreditation No 9909

Approved Signatory : Justin Fry