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

30th April 2024

Our Reference: 23765:NB1848

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
RATHDOWNE – STAGE 19 (WOLLERT)

Please find attached our Report No's 23765/R001 and 23765/R002 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 March 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).

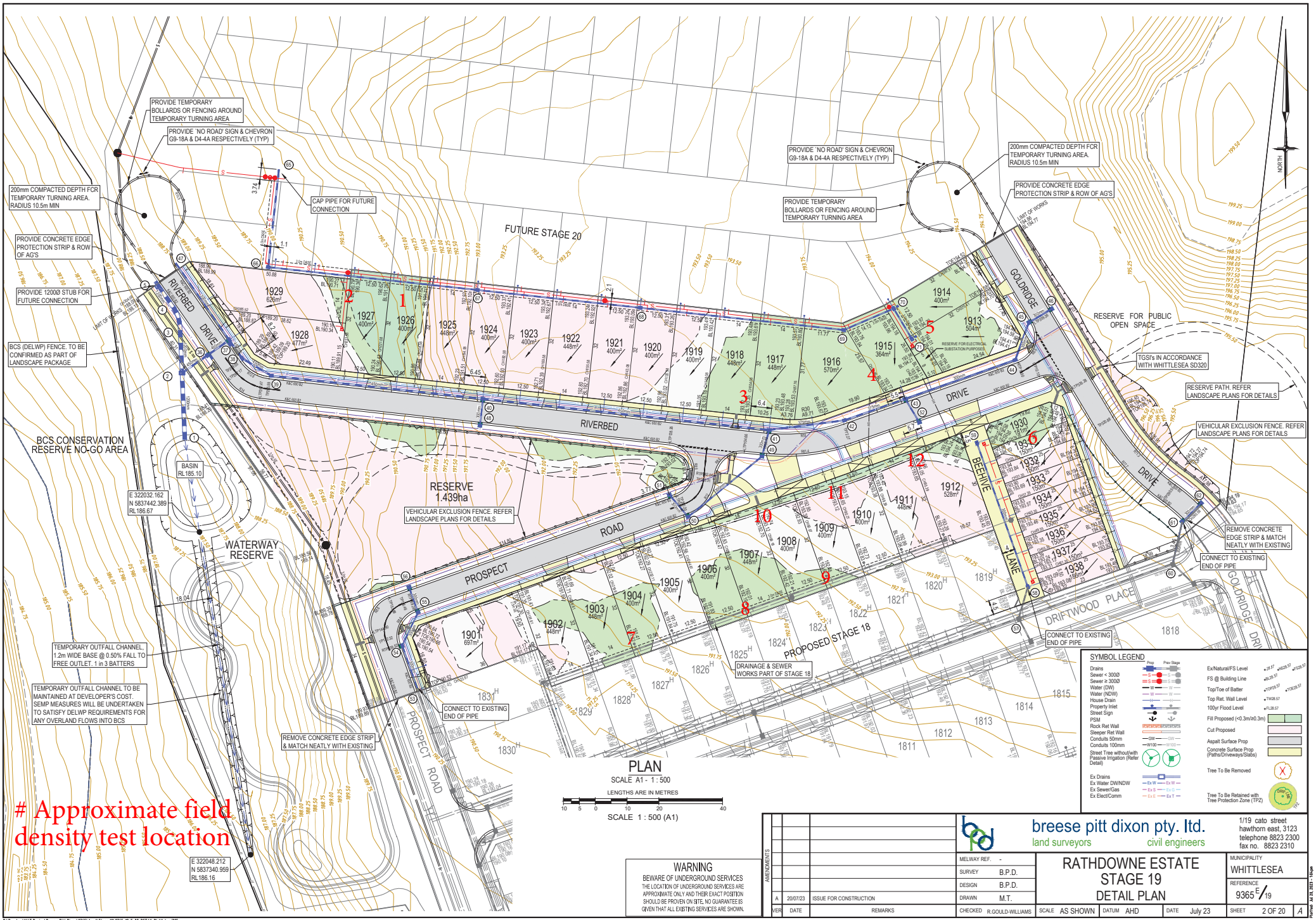
We are of the view that the bulk fill materials that have been placed across the reported allotments by Winslow Constructors during the aforementioned period can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Nick Brock

FIGURE 1


PROVIDE TEMPORARY BOLLARDS OR FENCING AROUND TEMPORARY TURNING AREA
PROVIDE 'NO ROAD' SIGN & CHEVRON G9-18A & D4-4A RESPECTIVELY (TYP)
200mm COMPACTED DEPTH FCR TEMPORARY TURNING AREA. RADIUS 10.5m MIN
PROVIDE CONCRETE EDGE PROTECTION STRIP & ROW OF AG'S
PROVIDE 1200Ø STUB FOR FUTURE CONNECTION
BCS (DELWP) FENCE. TO BE CONFIRMED AS PART OF LANDSCAPE PACKAGE
CAP PIPE FOR FUTURE CONNECTION
FUTURE STAGE 20
RIVERBED DRIVE
GOLDRIDGE DRIVE
RESERVE FOR PUBLIC OPEN SPACE
TGSI's IN ACCORDANCE WITH WHITTLESEA SD320
RESERVE PATH. REFER LANDSCAPE PLANS FOR DETAILS
VEHICULAR EXCLUSION FENCE. REFER LANDSCAPE PLANS FOR DETAILS
BCS CONSERVATION RESERVE NO-GO AREA
BASIN RL185.10
E 322032.162 N 5837442.389 RL186.67
RESERVE 1.439ha
WATERWAY RESERVE
PROSPECT ROAD
BEEHIVE LANE
DRIFTWOOD PLACE
PROPOSED STAGE 18
DRAINAGE & SEWER WORKS PART OF STAGE 18
REMOVE CONCRETE EDGE STRIP & MATCH NEATLY WITH EXISTING
CONNECT TO EXISTING END OF PIPE
TEMPORARY OUTFALL CHANNEL, 1.2m WIDE BASE @ 0.50% FALL TO FREE OUTLET. 1 in 3 BATTERS
TEMPORARY OUTFALL CHANNEL TO BE MAINTAINED AT DEVELOPER'S COST. SEMP MEASURES WILL BE UNDERTAKEN TO SATISFY DELWP REQUIREMENTS FOR ANY OVERLAND FLOWS INTO BCS
E 322048.212 N 5837340.959 RL186.16
Approximate field density test location
SYMBOL LEGEND
PLAN
SCALE A1 - 1 : 500
LENGTHS ARE IN METRES
SCALE 1 : 500 (A1)
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.
breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310
RATHDOWNE ESTATE
STAGE 19
DETAIL PLAN
MELWAY REF. -
SURVEY B.P.D.
DESIGN B.P.D.
DRAWN M.T.
CHECKED R.GOULD-WILLIAMS
MUNICIPALITY WHITTLESEA
REFERENCE 9365E/19
SCALE AS SHOWN
DATUM AHD
DATE July 23
SHEET 2 OF 20 A
A 20/07/23 ISSUE FOR CONSTRUCTION
AMENDMENTS
VER DATE REMARKS

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	23765
		Report No	23765/R001
		Date Issued	30/04/24
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	RATHDOWNE - STAGE 19	*Date tested*	08/03/24
Location	WOLLERT	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 08:32

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/m³*	1.96	1.93	1.96	1.94	1.98	1.98
Field moisture content	*%*	22.6	20.1	18.2	19.1	18.4	19.0

Test procedure AS 1289.5.7.1

Test No		1	2	3	4	5	6
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/m³*	1.98	1.94	1.98	1.96	2.01	1.99
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	25.0	22.5	20.5	21.5	20.5	21.5

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

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**	**99.5**	**99.0**	**99.0**	**98.0**	**99.0**

Material description

No 1 - 6 Clay Fill

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	23765
		Report No	23765/R002
		Date Issued	23/04/24
Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	*Tested by*	AC
Project	RATHDOWNE - STAGE 19	*Date tested*	12/03/24
Location	WOLLERT	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 09:34

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/m³*	1.90	1.95	1.97	1.97	1.89	1.95
Field moisture content	*%*	20.3	23.7	21.1	19.6	21.7	21.0

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/m³*	1.94	1.94	2.01	1.98	1.92	1.95
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	23.0	26.5	23.0	22.0	24.0	23.0

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

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**	**100.5**	**98.0**	**99.0**	**98.5**	**100.5**

Material description

No 7 - 12 Clay Fill

NATA Accredited Laboratory No 9909
Accredited for compliance with
ISO/IEC 17025 - Testing

Approved Signatory : Justin Fry