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

29th June 2012

Our Reference: 11421:JHF614

Peet Cranbourne Central Sydicate Limited
Level 3, 492 St Kilda Road
MELBOURNE VIC 3004

Dear Sirs,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
LIVINGSTON ESTATE (STAGE 2) – CRANBOURNE EAST

Please find attached our Report Nos 11421AA to 11421AC that 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 was performed in mid to late November 2011.

The inspection 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 supervision and testing was performed by an experienced geotechnician 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 Georgiou during the aforementioned period. The approximate locations of the field density tests can be seen on the attached plan (Figure 1).

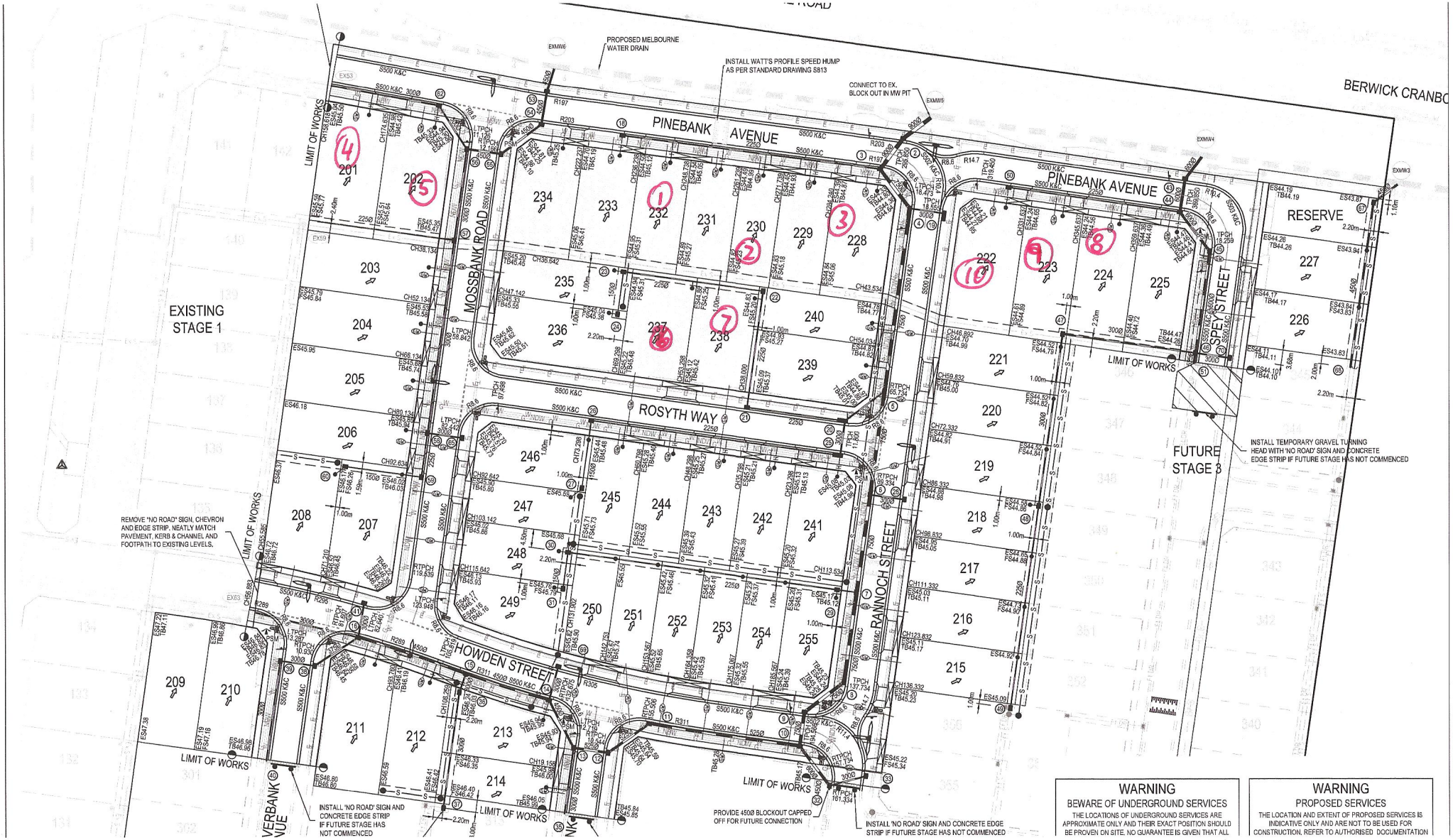
When interpreting the requirements of AS 2870 - Residential Slabs and Footings (2011), we are of the view that the bulk fill materials that have been placed across the filled allotments by Georgiou can be considered as having been placed in a controlled manner to a minimum density ratio of 95% (standard compactive effort).

Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

Justin Fry

FIGURE 1



(#) APPROXIMATE FIELD DENSITY LOCATION

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	11421
		Report No	11421AA
		Date Issued	28/11/11
Client	PEET CRANBOURNE CENTRAL SYNDICATE LIMITED (MELBOURNE)	Tested by	KC
Project	CRANBOURNE CENTRAL - STAGE 2	Date tested	16/11/11
Location	CRANBOURNE EAST	Checked by	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	11:00

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/m³*	1.69	1.71	1.73	-	-	-
Field moisture content	*%*	49.1	46.9	45.2	-	-	-

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/m³*	1.78	1.80	1.80	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	37.0	35.0	33.5	-	-	-

Moisture Variation From Optimum Moisture Content	15.5% wet	14.5% wet	14.0% wet	-	-	-

Density Ratio (R_{HD})	*%*	**95.0**	**95.0**	**96.0**	**-**	**-**	**-**

Material description

Test No 1 - 3 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES
6 - 8 Rose Avenue, Croydon 3136

		Job No	11421
		Report No	11421AB
		Date Issued	12/12/11
Client	PEET CRANBOURNE CENTRAL SYNDICATE LIMITED (MELBOURNE)	*Tested by*	KC
Project	CRANBOURNE CENTRAL - STAGE 2	*Date tested*	17/11/11
Location	CRANBOURNE EAST	*Checked by*	JHF

Feature **EARTHWORKS** *Layer thickness* 200 mm *Time:* 12:28

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**4**	**5**	**-**	**-**	**-**	**-**
Location		REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL		-	-	-	-	-	-
Measurement depth	*mm*	175	175	-	-	-	-
Field wet density	*t/m³*	1.80	1.73	-	-	-	-
Field moisture content	*%*	36.0	45.5	-	-	-	-

Test procedure AS 1289.5.7.1

Test No		4	5	-	-	-	-
Compactive effort		Standard					
Oversize rock retained on sieve	*mm*	19.0	19.0	-	-	-	-
Percent of oversize material	*wet*	0	0	-	-	-	-
Peak Converted Wet Density	*t/m³*	1.89	1.83	-	-	-	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	29.5	35.5	-	-	-	-

Moisture Variation From Optimum Moisture Content		6.5% wet	10.5% wet	-	-	-	-

Density Ratio (R_{HD})	*%*	**95.0**	**95.0**	**-**	**-**	**-**	**-**

Material description

Test No 4 - 5 Clay Fill

Approved Signatory : Justin Fry

COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

		Job No	11421
		Report No	11421AC
		Date Issued	15/12/11
Client	PEET CRANBOURNE CENTRAL SYNDICATE LIMITED (MELBOURNE)	*Tested by*	KC
Project	CRANBOURNE CENTRAL - STAGE 2	*Date tested*	22/11/11
Location	CRANBOURNE EAST	*Checked by*	JHF

Feature	**EARTHWORKS**	*Layer thickness*	200 mm	*Time:*	14:08

Test procedure AS 1289.2.1.1 & 5.8.1

Test No		**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	
Approximate depth below FSL		-	-	-	-	-	-
Measurement depth	*mm*	175	175	175	175	175	-
Field wet density	*t/m³*	1.79	1.76	1.72	1.75	1.75	-
Field moisture content	*%*	56.9	49.8	49.8	46.9	45.6	-

Test procedure AS 1289.5.7.1

Test No		6	7	8	9	10	-
Compactive effort		Standard					
Oversize rock retained on sieve	*mm*	19.0	19.0	19.0	19.0	19.0	-
Percent of oversize material	*wet*	0	0	0	0	0	-
Peak Converted Wet Density	*t/m³*	1.88	1.85	1.80	1.84	1.78	-
Adjusted Peak Converted Wet Density	*t/m³*	-	-	-	-	-	-
Optimum Moisture Content	*%*	47.0	37.5	37.5	34.5	34.5	-

Moisture Variation From Optimum Moisture Content	9.0% wet	13.5% wet	15.0% wet	14.0% wet	14.0% wet	-

Density Ratio (R_{HD})	*%*	**95.5**	**95.0**	**96.0**	**95.0**	**98.5**	**-**

Material description

Test No 6 - 10 Clay Fill

Approved Signatory : Justin Fry