



CIVIL GEOTECHNICAL SERVICES
ABN 26 474 013 724
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29th June 2012

Our Reference: 11420:JHF613

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 1) – CRANBOURNE EAST**

Please find attached our Report No 11420AA that relates 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 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).

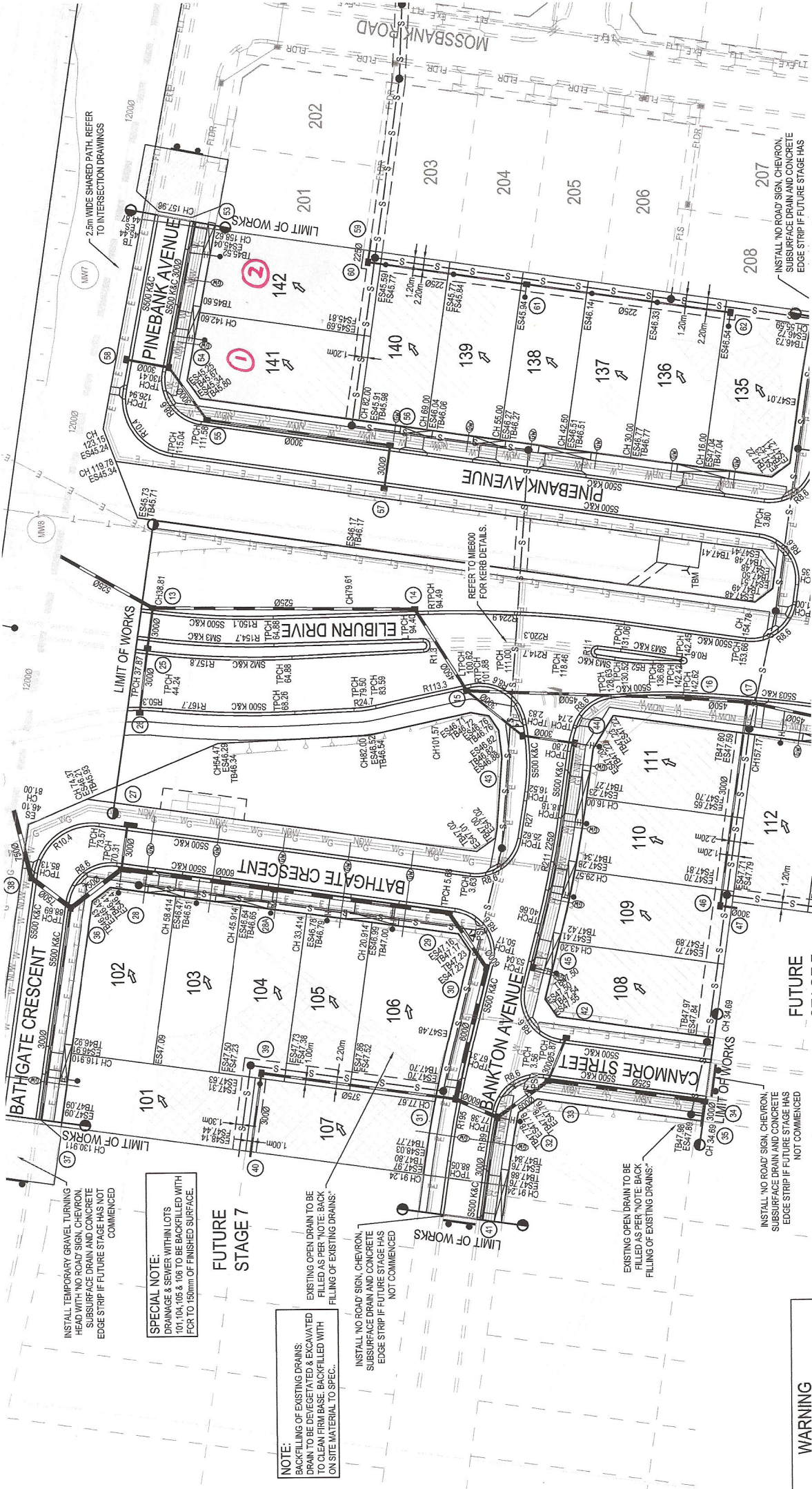
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

A handwritten signature in black ink, appearing to read 'Justin Fry', written in a cursive style.

Justin Fry

FIGURE 1



INSTALL TEMPORARY GRAVEL TURNING HEAD WITH 'NO ROAD' SIGN, CHEVRON, SUBSURFACE DRAIN AND CONCRETE EDGE STRIP IF FUTURE STAGE HAS NOT COMMENCED

SPECIAL NOTE:
DRAINAGE & SEWER WITHIN LOTS 101, 104, 105 & 106 TO BE BACKFILLED WITH FCR TO 150mm OF FINISHED SURFACE.

FUTURE STAGE 7

NOTE:
BACKFILLING OF EXISTING DRAINS: DRAIN TO BE DEVEGETATED & EXCAVATED TO CLEAN FIRM BASE. BACKFILLED WITH ON SITE MATERIAL TO SPEC.

INSTALL 'NO ROAD' SIGN, CHEVRON, SUBSURFACE DRAIN AND CONCRETE EDGE STRIP IF FUTURE STAGE HAS NOT COMMENCED

EXISTING OPEN DRAIN TO BE FILLED AS PER 'NOTE BACK' FILLING OF EXISTING DRAINS:

INSTALL 'NO ROAD' SIGN, CHEVRON, SUBSURFACE DRAIN AND CONCRETE EDGE STRIP IF FUTURE STAGE HAS NOT COMMENCED

WARNING

APPROXIMATE FIELD DENSITY LOCATION



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 11420
 Report No 11420AA
 Date Issued 12/12/11

Client	PEET CRANBOURNE CENTRAL SYNDICATE LIMITED (MELBOURNE)	Tested by	KC
Project	LIVINGSTON ESTATE - STAGE 1	Date tested	17/11/11
Location	CRANBOURNE EAST	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 12:34
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Test procedure AS 1289.2.1.1 & 5.8.1

Test No	1	2	-	-	-	-
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL	-	-	-	-	-	-
Measurement depth mm	175	175	-	-	-	-
Field wet density t/m³	1.77	1.77	-	-	-	-
Field moisture content %	36.8	39.8	-	-	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	-	-	-	-
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	1.86	1.87	-	-	-	-
Adjusted Peak Converted Wet Density t/m³	-	-	-	-	-	-
Optimum Moisture Content %	30.5	32.0	-	-	-	-

Moisture Variation From Optimum Moisture Content	6.5% wet	8.0% wet	-	-	-	-
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Density Ratio (R_{HD}) %	95.0	95.0	-	-	-	-
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Material description

Test No 1 - 2 Clay Fill

A581HILF V1.10 OCT 09



This document is issued in accordance with NATA's accreditation requirements. Accredited for compliance with ISO/IEC 17025

Accreditation No 9909

Justin Fry

Approved Signatory : Justin Fry