



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

23rd March 2012

Our Reference: 12036:JHF565

Winslow Constructors Pty Ltd
50 Barry Road
CAMPBELLFIELD VIC 3061

Dear Sirs,

**RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
ESTUARY ESTATE (STAGE 6) – LEOPOLD**

Please find attached our Report No 12036AA 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 early February 2012.

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 an experienced geotechnician from this office. Any areas that were deemed unsatisfactory were reworked and retested under his 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).

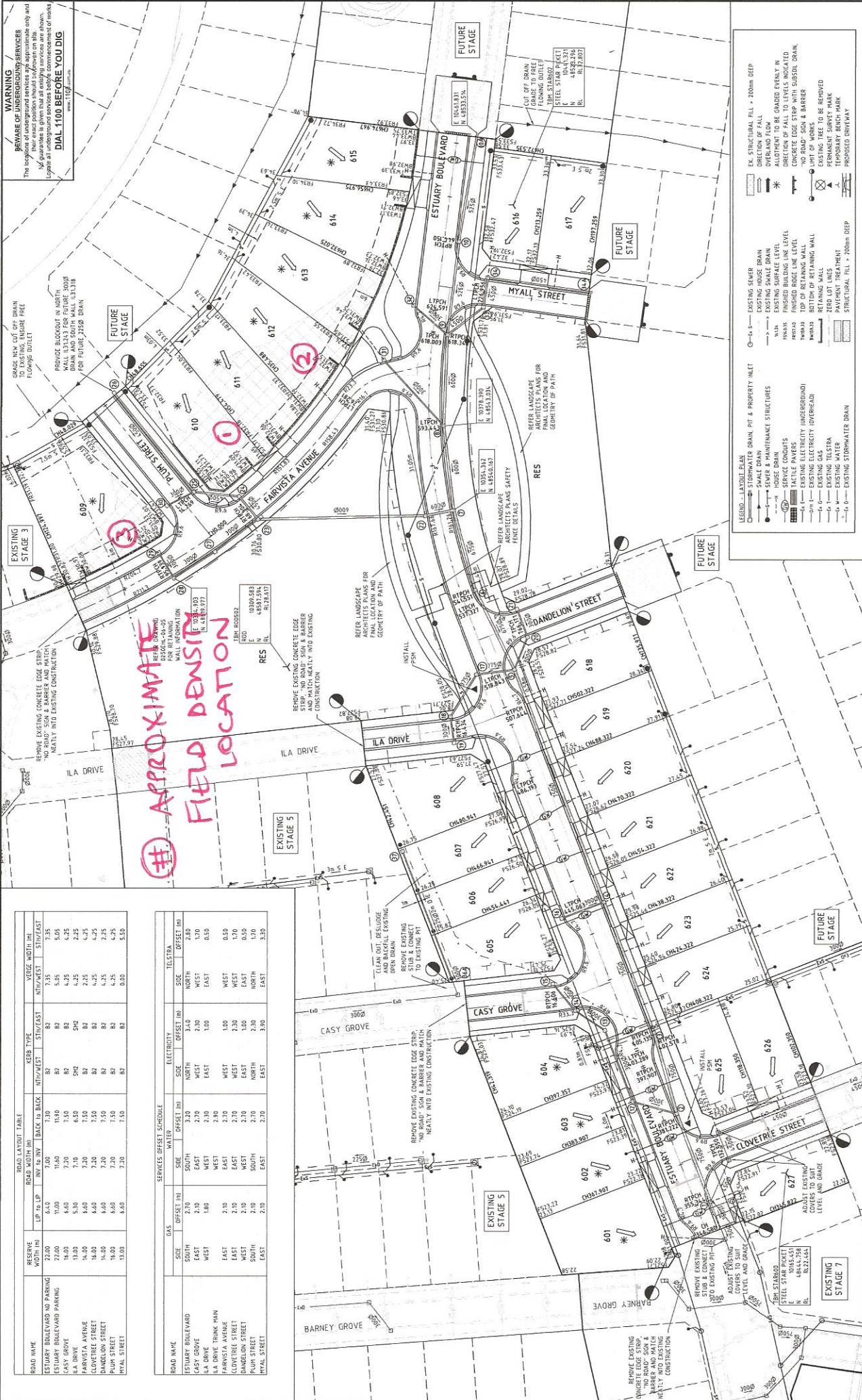
Please contact the undersigned if you require any additional information.

Civil Geotechnical Services

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

Justin Fry

FIGURE 1



ROAD LAYOUT TABLE

ROAD NAME	RESERVE WIDTH (m)		ROAD WIDTH (m)		KERB TYPE		VERGE WIDTH (m)	
	LP TO LP	LP TO R/W	INT TO INT	BACK TO BACK	NTW/EAST	STW/EAST	NTW/WEST	STW/WEST
ESTUARY BOULEVARD AND PARKING	6.40	7.00	8.2	8.2	8.2	8.2	7.35	7.35
ESTUARY BOULEVARD PARKING	11.00	11.00	8.2	8.2	8.2	8.2	5.05	5.05
CASY GROVE	5.00	5.00	5.00	5.00	5.00	5.00	2.25	2.25
ILA DRIVE	5.30	5.30	5.00	5.00	5.00	5.00	4.25	4.25
PARVOSTA AVENUE	6.60	7.00	8.2	8.2	8.2	8.2	2.25	2.25
CLOVETREE STREET	6.60	7.20	8.2	8.2	8.2	8.2	4.25	4.25
DANDELION STREET	6.60	7.20	8.2	8.2	8.2	8.2	4.25	4.25
PUM STREET	6.60	7.20	8.2	8.2	8.2	8.2	4.25	4.25
MYAL STREET	6.40	7.20	8.2	8.2	8.2	8.2	0.00	0.00

SERVICES OFFSET SCHEDULE

ROAD NAME	GAS		WATER		ELECTRICITY		TELSTRA	
	SIZE	OFFSET (m)	SIZE	OFFSET (m)	SIZE	OFFSET (m)	SIZE	OFFSET (m)
ESTUARY BOULEVARD	SOUTH	2.70	SOUTH	3.40	NORTH	3.40	NORTH	2.80
CASY GROVE	EAST	2.10	EAST	2.30	WEST	2.30	WEST	1.70
ILA DRIVE	WEST	1.80	WEST	1.00	EAST	1.00	EAST	0.50
PARVOSTA AVENUE	EAST	2.10	WEST	1.00	WEST	1.00	WEST	0.50
CLOVETREE STREET	EAST	2.10	WEST	2.30	WEST	2.30	WEST	0.50
DANDELION STREET	WEST	2.10	EAST	1.00	EAST	1.00	EAST	0.50
PUM STREET	SOUTH	2.10	SOUTH	2.30	NORTH	2.30	NORTH	1.70
MYAL STREET	EAST	2.10	EAST	2.30	EAST	2.30	EAST	3.10

WARNING
BEWARE OF UNDERGROUND SERVICES
The locations of underground services are approximate only and no guarantee is given that all existing services are shown. Locate all underground services before commencement of works.
www.1100.gov.au

DIAL 1100 BEFORE YOU DIG

LEGEND - LAYOUT PLAN

- EXISTING SEWER
- EXISTING HOSE DRAIN
- EXISTING SHALE DRAIN
- EXISTING WATER MAIN
- EXISTING GAS MAIN
- EXISTING TELEPHONE
- EXISTING CABLE
- EXISTING POWER
- EXISTING UNDERGROUND
- EXISTING OVERHEAD
- EXISTING WATER
- EXISTING STORMWATER DRAIN

DESIGNED
C. Butler

DRAWN
C. Butler

CHECKED
C. Butler

ISSUED
C. Butler

DATE
December 2010

ESTUARY Stage 6
City of Greater Geelong
Roadworks and Drainage
Layout Plan

Drawing No. 0250EHL-06-03
Sheet No. 3 of 28

Rev F
Approved for Construction

urban
consulting group

Some Urban
Urban Planning
1/141 S. GLENVIEW ST. | TRARALGON, VIC 3240
Phone: +61 3 9228 1000 | Fax: +61 3 9228 9181 | Email: info@urban.vic.au
Website: www.urban.vic.au

estuary
leapfrog

Principal
Leapfrog Property Developments Pty Ltd
Southbank, Victoria 3008

REVISION

NO.	DATE	DESCRIPTION	BY	APP'D
A	01.03.11	ISSUED TO COUNCIL FOR APPROVAL	JG	
B	19.05.11	ISSUED FOR APPROVAL	JG	
C	19.05.11	ISSUED FOR APPROVAL	JG	
D	19.05.11	ISSUED FOR APPROVAL	JG	
E	19.05.11	ISSUED FOR APPROVAL	JG	
F	28.05.11	ISSUED FOR APPROVAL	JG	

Scale @ A1
1:500

North

0 5 10 20



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Job No 12036
 Report No 12036AA
 Date Issued 13/02/12
 Tested by KTC
 Date tested 03/02/12
 Checked by JHF

Client	WINSLOW CONSTRUCTORS PTY LTD (CAMPBELLFIELD)	Tested by	KTC
Project	ESTUARY - STAGE 6	Date tested	03/02/12
Location	LEOPOLD	Checked by	JHF

Feature	EARTHWORKS	Layer thickness	200 mm	Time: 13:15
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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	1.96	1.93	2.14	-	-	-
Field moisture content %	9.9	16.2	12.5	-	-	-

Test procedure AS 1289.5.7.1

Test No	1	2	3	-	-	-
Compactive effort	Standard					
Override 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	1.99	1.95	2.04	-	-	-
Adjusted Peak Converted Wet Density t/m³	-	-	-	-	-	-
Optimum Moisture Content %	13.5	19.0	16.0	-	-	-

Moisture Variation From Optimum Moisture Content	4.0% dry	3.0% dry	3.5% dry	-	-	-
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Density Ratio (R _{HD}) %	98.5	99.5	105.0	-	-	-
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Material description

Test No 1 - 3 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