



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

25th January 2018

Our Reference: 18061:NB120

Rokon Pty Ltd
1 / 75 River Street
RICHMOND VIC 3121

Dear Sirs/Madams,

RE: LEVEL 1 EARTHWORKS INSPECTION AND TESTING
ROTHWELL – STAGE 9 (TRUGANINA)

Please find attached our Report No 18061/R001 which relates to the field density testing that was conducted at the filled allotments of the above subdivision. The level 1 inspections and associated field density testing were performed in September 2017.

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 inspections 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 filled allotments by Rokon 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 filled allotments by Rokon 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

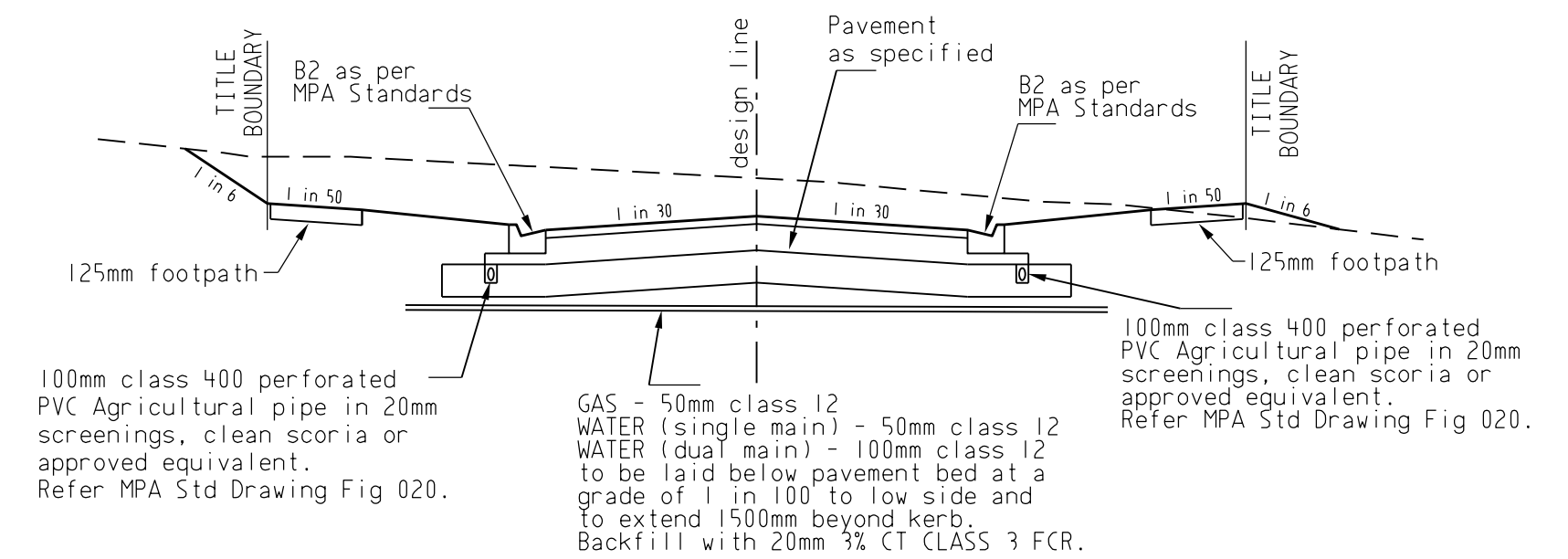
PROPOSED STAGE 7

PIPE CURVE DETAILS

STREET NAME	Rd.RESERVE	WATER		GAS	ELECTRICITY		FIBRE TO THE HOME		Bk. of KERB	JOINT TRENCHING
		DW	NDW		CABLES	POLES	FTTH CABLES	FTTH PITS		
EDGEWOOD BLVD (LOTS 903/904 & 916/917)	21-00	3-30W	2-75W	2-25W	2-65E	1-00 W BOX	1-85E	1-85 E & W	4-25E/4-85W	W & G, E & FTTH
EDGEWOOD BLVD (LOTS 905-912)	21-00	3-30W	2-75W	2-25W	2-40E	1-10 E BOX	1-85E	1-85 E & W	4-25E/4-85W	W & G, E & FTTH
BLAZON DRIVE	16-00	3-20S	2-70S	2-25S	2-60N	1-00 BOX	1-85N	1-85N & S	4-35S/4-05N	W & G, E & FTTH
LODGING DRIVE	16-00	3-20S	2-70S	2-25S	2-60N	1-00 BOX	1-85N	1-85N & S	4-35S/4-05N	W & G, E & FTTH

No	Dia	Radius	Angle	Arc	Hand
1-2	1200	13.4	90.16°	21.09	RIGHT

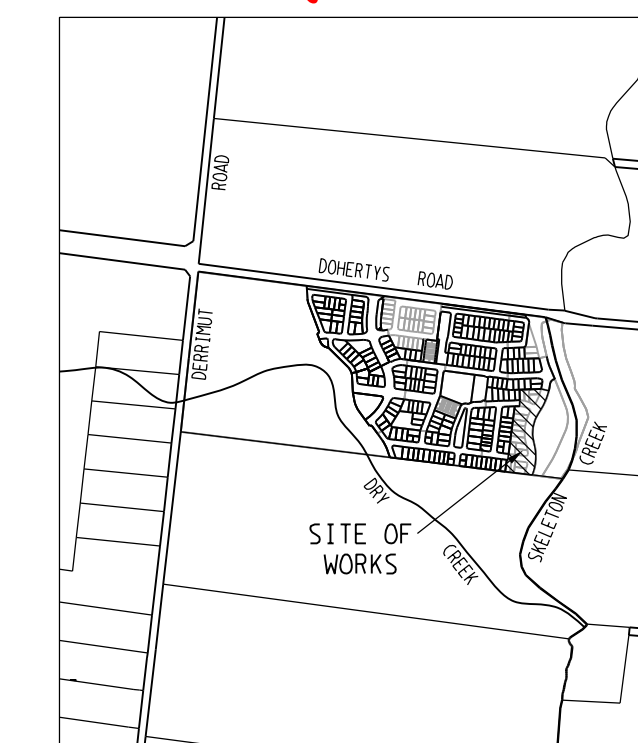
Note: Hand is nominated looking upstream.



NOTE:
1. REFER CROSS SECTION SHEETS FOR INDIVIDUAL ROAD WIDTHS AND KERB & FOOTPATH OFFSETS.
2. REFER SERVICES SCHEDULE FOR SERVICES OFFSETS.

(nts)

Approximate field density test location



LOCALITY PLAN

SCALE 1:20000

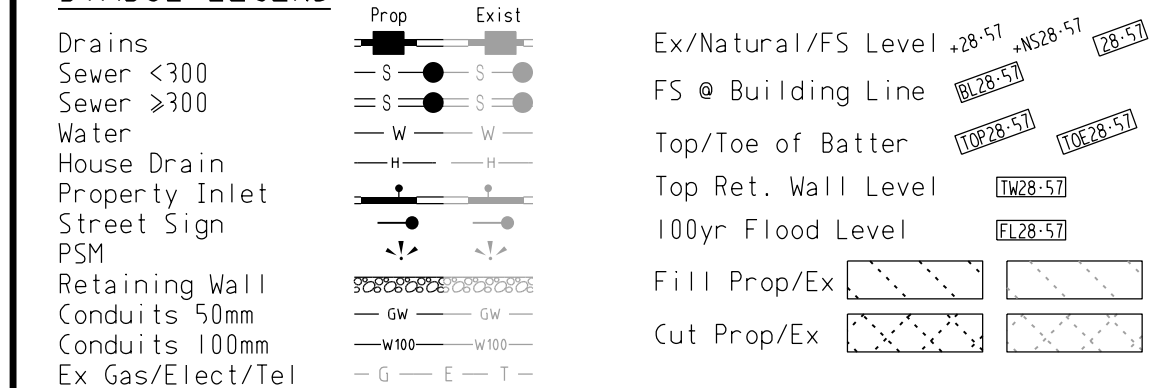
SHEET INDEX

SHT No.	VER	DESCRIPTION
1	B	PLAN, LOCALITY PLAN, SERVICES SCHEDULE & TYPICAL CROSS SECTION
2	B	NOTES, MISC. DETAILS & INTERSECTION DETAILS
3	A	LONGITUDINAL & CROSS SECTIONS - EDGEWOOD BOULEVARD
4	A	CROSS SECTIONS (CONT.) - EDGEWOOD BOULEVARD
5	A	LONGITUDINAL & CROSS SECTIONS - LODGING DRIVE
6	A	LONGITUDINAL & CROSS SECTIONS - BLAZON DRIVE
7	B	DRAINAGE LONGITUDINAL SECTIONS, PIT 2 DETAILS & PIT SCHEDULE

ATTENTION TO CONTRACTOR

1. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.
2. Contractor to ensure that the site is pegged and or set out checked by the licenced surveyor responsible for certifying the Plan of Subdivision prior to underground infrastructure being installed.
3. Where concrete works at a sewer access chamber surround or similar structure, an expansion joint of approved material shall be provided between the two faces.

SYMBOL LEGEND



PLAN

SCALE 1:500



breese pitt dixon pty. ltd.
land surveyors civil engineers

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

ROTHWELL EAST
STAGE 9

SYNDHAM

REFERENCE
3584 E/9

ET 1 OF 7 B Plotted:

T:\H8584\ENG\ST09\F09_R01_PLAN1.DGN



COMPACTION ASSESSMENT

CIVIL GEOTECHNICAL SERVICES

6 - 8 Rose Avenue, Croydon 3136

Client ROKON (RICHMOND)
Project ROTHWELL ESTATE - STAGE 9
Location TRUGANINA

Job No 18061
Report No 18061/R001
Date Issued 25/09/2017

Tested by JB
Date tested 18/09/2017
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				
Location	REFER TO FIGURE 1	REFER TO FIGURE 1				
Approximate depth below FSL						
Measurement depth mm	175	175				
Field wet density t/m ³	1.74	1.78				
Field moisture content %	25.9	30.2				

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/m ³	1.82	1.83				
Adjusted Peak Converted Wet Density t/m ³	-	-				
Optimum Moisture Content %	28.5	32.0				

Moisture Variation From Optimum Moisture Content	2.5% dry	1.5% dry				
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Density Ratio (R_{HD})	%	96.0	97.5			
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Material description

No 1 - 2 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

Justin Fry

Approved Signatory : Justin Fry

AVRLOT HILF V1.10 MAR 13