



HEATH CONSULTING ENGINEERS

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27 October 2012

Cambrune Pty Ltd
233 College Road
BATHURST NSW 2795

Attention: Mr Ray Carter

Dear Sir,

RE. SUMMARY OF WATER & SEWER FOR 369 STEWART STREET, BATHURST

Please find below a summary of the facts with regard to water and sewer access charges for the above property.

- Existing Water Meter/Service size – large size due to fire hydrant service being metered 100mm diameter
- Estimated Water Meter/Service size required to satisfy Probable Simultaneous Flowrates (PSFR) for the building based on AS3500 and AS2441 (refer attached which identifies the number of water fixtures in the building as advised by Ray Carter) 40mm diameter
- Estimated Water Meter/Service size required based on actual average annual water usage over last Eight (8) years (One Equivalent Tenements) (refer attached) 20mm diameter
 - Actual annual water usage – 2004/2005 84kL
 - Actual annual water usage – 2005/2006 11kL
 - Actual annual water usage – 2006/2007 27kL
 - Actual annual water usage – 2007/2008 0kL
 - Actual annual water usage – 2008/2009 0kL
 - Actual annual water usage – 2009/2010 0kL
 - Actual annual water usage – 2010/2011 0kL
 - Actual annual water usage – 2011/2012 0kL
- Bathurst Regional Council staff advised they generally use a figure of 220 to 240L/person/day for their sewage load with an average of 2.3persons/ET. This equates to an annual sewage load of 185kL to 202kL. 200kL
- The total amount of water used from 2004 to 2007 is approximately 20% of the residential water usage for the same period.
- Fire hydrants are located external to the building and therefore cannot discharge to the sewerage system as there no external sewerage drainage points.

- Fire hose reels are located around the building but predominantly away from any floor wastes that discharge to the sewerage system thereby making it impossible for the maximum load from the water meter to be placed on the sewerage system
- Comparison of actual costs being charge by BRC against actual load that could be placed on Council's sewerage system are shown on the attached sheet.
- Sewer access charge up to 2400% greater than residential sewer access charge.
- Actual water consumption figures show that this property discharges less than 20% of the amount of water a residential property is expected to discharge.

Yours faithfully

Heath Consulting Engineers



Per:

ROGER HEATH

Enc.

RATE ASSESSMENT
 Prefabricated Buildings Pty Ltd

PROPERTY ADDRESS:

369 Stewart Street
 Bathurst

METER NO

ASSESSMENT NO.

LOT NO.

DATE

YEAR	WC	SHR.	SINK	BRN.	URIL	RW	STW	FHR	YO	TAP	SIZE	WATER METER	WATER METER	WATER METER	KL WATER CONSUMPTION	SDF	SEWER RICHES	SEWER ACCESS	WATER AVAILABILITY CHARGE	REQUIRED AVAILABILITY CHARGE	SEWER ACCESS CHARGE based on Equivalent Number of ET's	SEWER ACCESS CHARGE based on Nominal Water Meter Size	WATER AVAILABILITY CHARGE based on Nominal Water Meter Size	WATER AVAILABILITY CHARGE based on Nominal Water Meter Size	Water Usage Change	Sewer Change	Cost per rotat flush based on average of 6 L/flush
2004-05	22	9	6	8	8	5	8	14	5	100	100				84	100%	\$ 7,287.50	\$ 6,450.00		\$ 1,167.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 65.52	\$ 0.50	\$ 43.00	6 L/flush
2006-06	22	9	6	8	8	5	8	14	5	100	100			11	100%	\$ 7,287.50	\$ 6,285.00		\$ 1,167.00	\$ 1,000.00	\$ 1,000.00	\$ 1,000.00	\$ 65.52	\$ 0.50	\$ 43.00	6 L/flush	
2008-08	22	9	6	8	8	5	8	14	5	100	100			27	100%	\$ 7,287.50	\$ 6,475.00		\$ 1,235.00	\$ 1,036.00	\$ 1,036.00	\$ 1,036.00	\$ 65.52	\$ 0.50	\$ 43.00	6 L/flush	
2009-09	22	9	6	8	8	5	8	14	5	100	100			0	95%	\$ 7,287.50	\$ 6,735.00		\$ 1,276.00	\$ 1,076.00	\$ 1,076.00	\$ 65.52	\$ 0.50	\$ 43.00	6 L/flush		
2010-10	22	9	6	8	8	5	8	14	5	100	100			0	95%	\$ 8,326.85	\$ 3,425.00		\$ 1,338.00	\$ 943.00	\$ 943.00	\$ 65.52	\$ 0.50	\$ 43.00	6 L/flush		
2011-11	22	9	6	8	8	5	8	14	5	100	100			0	95%	\$ 8,348.40	\$ 3,428.00		\$ 1,339.00	\$ 943.00	\$ 943.00	\$ 65.52	\$ 0.50	\$ 43.00	6 L/flush		
2012-12	22	9	6	8	8	5	8	14	5	100	100			0	95%	\$ 8,350.95	\$ 3,428.00		\$ 1,340.00	\$ 943.00	\$ 943.00	\$ 65.52	\$ 0.50	\$ 43.00	6 L/flush		
2013-12	22	9	6	8	8	5	8	14	5	100	100			0	95%	\$ 8,350.95	\$ 3,428.00		\$ 1,340.00	\$ 943.00	\$ 943.00	\$ 65.52	\$ 0.50	\$ 43.00	6 L/flush		
Totals																			\$ 2,592.00	\$ 10,985.00	\$ 6,579.00	\$ 6,579.00	\$ 1.05	\$ 1.38			

Calculation of Water Meter Size based on Probable Simultaneous Flow Rates

Year No. of Loading Units from ASP5001	1	2	3	4	5	6	7	8	Total
WC	1	2	3	4	5	6	7	8	28
SHR	1	1	1	1	1	1	1	1	8
SINK	1	1	1	1	1	1	1	1	8
URIL	1	1	1	1	1	1	1	1	8
RW	1	1	1	1	1	1	1	1	8
STW	1	1	1	1	1	1	1	1	8
FHR	1	1	1	1	1	1	1	1	8
YO	1	1	1	1	1	1	1	1	8
TAP	1	1	1	1	1	1	1	1	8
SIZE	1	1	1	1	1	1	1	1	8
WATER METER	1	1	1	1	1	1	1	1	8
WATER METER	1	1	1	1	1	1	1	1	8
WATER METER	1	1	1	1	1	1	1	1	8
KL WATER CONSUMPTION	1	1	1	1	1	1	1	1	8
SDF	1	1	1	1	1	1	1	1	8
SEWER RICHES	1	1	1	1	1	1	1	1	8
SEWER ACCESS	1	1	1	1	1	1	1	1	8
WATER AVAILABILITY CHARGE	1	1	1	1	1	1	1	1	8
REQUIRED AVAILABILITY CHARGE	1	1	1	1	1	1	1	1	8
SEWER ACCESS CHARGE based on Equivalent Number of ET's	1	1	1	1	1	1	1	1	8
SEWER ACCESS CHARGE based on Nominal Water Meter Size	1	1	1	1	1	1	1	1	8
WATER AVAILABILITY CHARGE based on Nominal Water Meter Size	1	1	1	1	1	1	1	1	8
WATER AVAILABILITY CHARGE based on Nominal Water Meter Size	1	1	1	1	1	1	1	1	8
Water Usage Change	1	1	1	1	1	1	1	1	8
Sewer Change	1	1	1	1	1	1	1	1	8
Cost per rotat flush based on average of 6 L/flush	1	1	1	1	1	1	1	1	8

Probable Simultaneous Flow Rate for building 1.65 L/s
 Nominal Meter Size Required to cater for above flow 40 mm
 Require Fire Hose Flow (2 HRT @ 0.5L/s each) 0.66 L/s
 TOTAL Flow Rate Required for the Site 2.31 L/s
 Nominal Meter Size Required to allow for Fire Hose Flows 40 mm

Average Water Usage = 42 K/L/annum (average taken on all water consumptions > 0)
 Peak Load per ET = 200 L/annum (refer to report by Heath Consulting Engineers for 15 Vele Road, Bathurst dated 2 December 2008)
 No. of ET's = 0.2 ET's
 Minimum ET = 1 ET