



Our Ref: (2020/220115)

Phone Enquiries: [REDACTED]  
Scott Henderson

9/06/2020

Office of the Independent Planning Commission NSW  
Level 3, 201 Elizabeth Street  
SYDNEY NSW 2000

Dear Stephen,

**Re: Brandy Hill Quarry Expansion – SSD 5899**

I refer to your letter dated 2 June 2020 regarding Brandy Hill Quarry Expansion – SSD 5899 and provide the following comment:

**1. Road maintenance contribution**

The Road Maintenance Contribution has been modelled on a 30-year timeframe, and for varying discount rates (which factors in the Road Cost Index). Assumptions have been made on: the volume of material extraction (including road density), initial average volume of daily heavy vehicles on the subject route, and the discount rate.

Over a 30-year, the estimated monetary contribution is \$158,931 using a discount rate of 3% per annum. Modelling of Road Maintenance Contribution has been undertaken for additional discount rates and is provided in the Attachment 1.

**2. Road classification and heavy vehicle haulage routes**

Paterson Road is classified as a Local road from the Maitland local government area boundary at Paterson River to Tocal Road, and, is classified as a Regional Road from Tocal Road to Flat Road.

South of Flat Road there are two heavy haulage route options identified:

Option 1:-

The Flat Road and Pitnacree Road route are classified as Regional Roads. Pitnacree Road joins with the State road network at Melbourne Street.

Option 2:-

Paterson Road south of Flat Road is classified as a Regional road and connects to a Regional road route to the State road network at the New England Highway. This Regional road route is via Belmore Road – Ken Tubman Drive – Alan Walsh Drive – Church Street.

Haulage routes identified in the application (SSD 5899 and described in this letter) currently permit general access heavy vehicles and are subject to exemptions and restrictions. General access vehicles are those vehicles that do not exceed 2.5 metres in width, 12.5 metres in length (rigid truck) or 19 metres (articulated combination), 4.3 metres in height and General Mass Limits (GML) as set by law.

In New South Wales, the National Class 3 Truck and Dog Trailer Mass Exemption Notice 2018 (No.2) under the Heavy Vehicle Law, provides exemptions on the vehicle type and loading permitted on the road network (e.g. Schedule 2: New South Wales 2. Conditions – General mass limits, and steer axle mass exemption limits 1) The mass of a truck and Dog heavy vehicle operating under this notice and the steer axle mass exemption limits must not be more than: b) in the case of a combination consisting of a rigid truck with 3 axles towing a dog trailer with 4 axles – 50.5t.).

There are also local posted signage restrictions from time to time on sections of the road network which limit the vehicle type and loading (e.g. restriction on the number of heavy vehicles on bridge).

Should you require further information please contact me on [REDACTED]

Yours sincerely,



Andrew Neil  
Manager Strategic Planning  
Planning and Environment | Maitland City Council

## Attachment 1: Calculations using methodology in Maitland City Wide Section 94 Contributions Plan 2016 Brandy Hill Quarry Expansion Project

### Brandy Hill Quarry: Material extraction

mass (quarry expansion component)	m	880,000	tonnes
density	p	2.65	
volume	V	332,075	cubic metres

### Traffic distribution

Heavy Vehicle deliveries distribution	f	25%	through Maitland LGA
Volume material extraction	Z	83,019	cubic metres

### Road maintenance contribution

Maintenance cost	Ms	\$ 8,059	
Length of sealed road	Ls	9.9	kilometres
Volume of initial heavy vehicles on network	Vi	550	vehicle trips per day
Volume of heavy vehicles from development (quarry)	Vd	59	vehicle trips per day
Proportion of Heavy vehicles from development	Vd/(Vi + Vd)	0.10	
Road Cost Index (RCI)	ly	1.047	RCI from 2015 (time of Maitland Citywide Contributions Plan to 2020)
Road Maintenance Contribution	Cs	\$ 8,108.53	year 2020

### Financial Modelling

Annual fee	A	\$ 8,108.53	\$ 8,108.53	\$ 8,108.53	\$ 8,108.53
Discount rate	DF	2.0%	3.0%	5.0%	10.0%
periods	n	30	30	30	30
Present Worth Factor	P/A	22.39646	19.60044	15.37245	9.42691
Present worth	P	\$181,602.33	\$158,930.77	\$124,647.98	\$ 76,438.42

### Discount rate

nominal interest rate	i	3.2648%				p.a.
inflation rate	h	1.2400%				p.a.
real interest rate	r	2.0000%	3.0000%	5.0000%	10.0000%	p.a.

Note: Assuming inflation rate, h equals Road Cost Index, RCI, and, Discount rate, DF equals real interest rate, r

### Road Cost Index (Maintenance) Annual Movement

2014/15	RCI %change	1.0%	p.a.
2015/16	RCI %change	0.4%	p.a.
2016/17	RCI %change	0.5%	p.a.
2017/18	RCI %change	1.4%	p.a.
2018/19	RCI %change	2.9%	p.a.
5yr-Avg p.a.	RCI %change	1.2%	p.a.