Section 94 Contributions Plan

Amendment No.77

Area 1 Roads and Traffic Control

Reference 28709
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Effective From: 30 November 2005

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1. Introduction

The Contributions Plan (CP) 1993 is a comprehensive CP covering some 340 projects and has now been in force for 10 years. The CP has not been a static document over this time but has been changed on an individual project basis through a number of amendments.

However, there are several factors that have led to a need for a comprehensive review of the CP. Some of these factors are:

- changes that have occurred in strategies or policies;
- a need for increased flexibility to make implementation of the CP easier;
- a need to spend accumulated S94 funds;
- changes in project details;
- add new projects where it is appropriate;
- effect a closer integration between the CP and the long and short term works and financial programs of Council; and
- improve the format of the CP.

2. Legal

This Contributions Plan is made under the provisions of Part 4, Division 6, Section 94B of the Environmental Planning and Assessment Act 1979 (as amended), in accordance with Part 4 of the EP and A Act Regulations 2002.

3. Planning Area 1

- The largest percentage of people resides in the Nowra/Bomaderry and Northern Shoalhaven Planning Area (49%) or 37,571 people. The majority of these people are located within the Nowra/Bomaderry urban area, although Kangaroo Valley is the fastest growing centre within this precinct.

- The Northern Shoalhaven Planning Area has a younger profile than the remainder of the City, with 22.1% of the precinct's residents under 12 years of age, and 40% between the ages of 25-54 years.

- The largest percentage of Aboriginal and Torres Strait Islanders (62%) reside in this precinct.

- This area has the largest percentage of one-parent families within the Shoalhaven (16.1%).

- Area 1 has the lowest unemployment rate (11.2%) and the highest percentage of residents in the labour force (54.4% of the total labour force of the Shoalhaven).

- Households in Area 1 have the highest average weekly income ($658 per week), although this is still below the average the Illawarra and NSW.

- Most public housing is located within Area 1 as well as the highest percentage of flat, unit or apartment buildings (5.6%) and percentage of dwellings rented (29.3%).

4. Purpose of the Plan

(Clause 27(1)(a) E P & A Regulation 2000)

The purpose (aim) of the Plan is to fund a proportion of the costs of providing roads and other traffic facilities within Planning Area 1 by way of a Section 94 levy on new (future) development of land within the relevant project benefit areas.

Further aims of this Plan are to:

- delete eighty-five (85) Area 1 road projects from the S94 Contributions Plan;
- retain and update forty-four (44) projects from the Contributions Plan;
- retain nine (9) recoupment projects for the cost of roads that Council has constructed in anticipation of new development; and
- create two new road projects:
  - 01 ROAD 0142 - Yalwal Road, Nowra Hill; and
  - 01 ROAD 0143 - Quinns Lane to Browns Road Link, South Nowra.

5. Deleted Projects

This Plan deletes eighty-five (85) Area 1 road projects from the Contributions Plan.

The main reasons for deleting projects are:

- project completed;
- all contributions collected;
- benefit Area developed; and
- no contributions received .

Area 1 road projects deleted in this Plan are shown in *Appendix A*.

To match S94 expenditure on a proportional basis, Council needs to spend an additional $188,710 on the following deleted projects:

01 ROAD 0005:
Agars Lane, Berry = $107,770

01 ROAD 0011:
Fletchers Lane, Bomaderry = $ 12,520

01 ROAD 0021:
Irvines Road, Berry Mountain = $ 4,000

01 ROAD 0063:
Mackays Road,
Upper Kangaroo Valley = $ 63,270

01 ROAD 0123:
Mnt Scanzi Road,
Kangaroo Valley = $ 1,150

Where the date of consent for an approved development is before the date this plan becomes effective, and such conditions of consent include contributions to Road projects to be deleted in this Plan, payment of the contribution will still be required.

6. Projects Updated & Retained

This Plan retains and updates forty-four (44) projects currently contained in the S94 Contributions Plan 1993.

Area 1 road projects retained in this Plan are shown in *Appendix B.*

7. Recoupment Projects

This Plan retains nine (9) road projects for which recoupment of costs are sought for roads that Council has constructed in anticipation of new development:

Area 1 road projects retained in this Plan for recoupment are listed below.

Project No	Description	Expenditure to be recouped
01ROAD0049	Woodhill Mt Rd	$17,004
01ROAD0053	Kangaroo River Bridge	$179,307
01ROAD0075	Illaroo Rd	$19,065
01ROAD0083	Cabbage Tree Lane	$80,565
01ROAD0096	Pyree Lane / Culburra Rd	$153,401
01ROAD0099	Greenwell Pt Road	$193,340
01ROAD00100	Greenwell Pt Road	$2,082
01ROAD00120	Judith Drive / Page Avn	$133,996
01ROAD00141	Central Avn roundabout	Recoupment on behalf of developer

8. New Projects

This plan contains two new road projects:

01 ROAD 0142 Yalwal Road
01 ROAD 0143 Quinns Lane/Browns Road Link

Refer to *Appendix C* for additional information on new projects.

9. Land to which the Plan Applies

(Clause 27(1)(b) E P & A Regulation 2000**)**

The Plan applies to the lands situated within the Benefit Areas associated with the individual road projects contained in this Plan. The subject areas are shown hatched and bordered by a thick black line on the Benefit Area maps in the Appendices to this Plan.

The subject lands benefiting from a particular road project are generally located adjoining and adjacent to, and gain vehicular access from that road project.

For more detail, refer to the Benefit Area Maps in the appendices to this Plan.

10. Nexus

(Clause 27(1)(c) E P & A Regulation 2000)

Where new development requires the construction of roads or the upgrading of existing roads, each additional dwelling (or equivalent tenement - E.T.) will be levied a proportion of the cost.

Generally the proportion of the cost levied on new development will be equivalent to its proportion of traffic usage of the new or upgraded facility. This ensures that new development pays an equitable share of the costs associated with providing a suitable road network.

It is assumed that the most direct routes will be used and areas closest to a specific road project gain the maximum benefit.

Where roads benefit existing development (including "through" traffic), Council is responsible for that component of the cost.

Given the uncertainty of how industrial or commercial land will be developed, contributions are based on land area or road frontage. Since land area limits development potential, traffic generation is proportional to site area and/or frontage.

The rate of wear and the standard of pavement required increases with higher volumes of traffic. As a consequence the pavement will require strengthening and/or sealing where new development generates additional traffic.

Prior to such work, the pavement is tested and designed to cater for future traffic volumes. Upgraded pavements will then have a level of service equivalent to a new road and will benefit both existing and future developments.

11. Contributions Formula

(Clause 27(1)(d) E P & A Regulation 2000)

11.1 Standard Development

For standard developments, the contribution is based on the following formula:

$$\text{Contribution} = \frac{\text{estimated project cost}}{\text{estimated number of all benefiting lots/dwellings (E.T.'s) or square metres or lineal metres}}$$

divided by

11.2 Rural Residential Development

For rural residential developments, the contribution is based on the following formula:

$$\text{Contribution} = \frac{\text{estimated project cost}}{\text{estimated number of potential (new) lots/dwellings (E.T.'s)}}$$

12. Contribution Rates

(Clause 27(1)(e) E P & A Regulation 2000)

Contribution rates relating to individual road projects are listed in *Appendix D* to this Plan.

The rates are adjusted annually in line with the Implicit Price Deflator, (New Engineering and Construction) from the Australian Bureau of Statistics.

For additional information relating to contribution rates, refer to the Apportionment and Estimated Cost Tables in the appendices to this Plan.

13. Contribution Payment

(Clause 27(1)(f) E P & A Regulations 2000)

The Road contribution is required for all development.

13.1 Method of Payment

The methods for the payment of monetary Section 94 contributions are:

- cash;
- money order; or
- bank cheque.

The payment for residential development will be by way of cash contributions per lot (E.T.) on release of the linen plan where subdivision is involved. For other types of development, or where construction is involved, cash payment will be made prior to the issuing of a construction certificate.

13.2 Deferment

Under exceptional circumstances only, and subject to suitable financial undertakings, Council may allow the deferment of the monetary contributions payment, provided the following criteria are satisfied:

- the contribution(s) do not relate to facilities that could threaten public health or safety;
- the maximum deferral period not to exceed two years from the date of the construction certificate, release of the linen plan or the endorsement date of the development consent; and
- the applicant will be required to provide:
  - a bank guarantee for the required amount, plus a penalty interest rate apportioned over the period of the bank guarantee; and
  - payment of a minor administration fee.

Deferral of S94 contribution payments is based on individual merit. Precedents set by this, or any other Council should not be relied upon.

The interest rate applying to authorised deferred payments will be in accordance with the current interest rates charged by Council on overdue rates.

Deferred or periodic payments are subject to the approval of the Director Development and Environmental Services, or nominee.

13.3 Land Dedication

Council may require dedication of land for projects identified in this Plan.

Such land will be assessed at the development or subdivision stage when Council will commission a valuation of the subject land.

The value of the land may be offset against the monetary contribution.

Where land has not been identified for acquisition in this Plan, a monetary contribution will be required.

14. Estimated Costs

(Clause 27(1)(g) E P & A Regulation 2000)

Estimated costs associated with individual road projects are shown in the Apportionment and Estimated Costs Tables in the Appendices to this Plan.

15. Schedule of Facilities

(Clause 27(1)(g) E P & A Regulation 2000)

15.1 Introduction

Road projects selected for inclusion in this Contributions Plan fall into three (3) main categories:

(a) strengthen an existing sealed pavement;
(b) upgrade an existing gravel pavement to a sealed road standard;
(c) other traffic devices, facilities and road works, such as:
- a new road;
- widening an existing road;
- a new bridge;
- a new traffic facility;
- an upgraded intersection.

15.2 Strengthen an Existing Sealed Pavement

A number of sealed roads throughout the Shoalhaven were designed and constructed to cater for traffic volumes below their current level of usage. Consequently, some pavements are showing signs of distress.

Shoalhaven City Council has developed a strategy to rehabilitate existing roads showing signs of distress due to increased traffic volumes. This work involves the strengthening of the road pavement, and may involve:

(a) increasing the pavement thickness;
(b) mechanical or chemical stabilization of the pavement; and/or
(c) hotmix overlay.

15.3 Upgrade Gravel Pavement to Sealed Road Standard

A number of roads will require upgrading from gravel to a sealed standard due to increasing traffic volumes. The projects have been selected using the following criteria as a guide:

(a) the anticipated traffic volumes;
(b) the use of the road as a bus route;
(c) the grade of the road where it affects the integrity of the pavement;
(d) the proximity and number of houses close to the road, where dust problems may develop; and
(e) the distribution and density of development along the road.

The upgrading work involves a seal treatment to the pavement and may involve additional drainage and an improved road alignment.

16. Timing

(Clause 27(1)(g) E P & A Regulation 2000)

Subject to sufficient development the implementation of projects are anticipated as follows:

Project	Anticipated Year
01 ROAD 0007	2005- 2010
01 ROAD 0025	2010- 2015
01 ROAD 0026	2010- 2015
01 ROAD 0027	2010- 2015
01 ROAD 0028	2010- 2015
01 ROAD 0038	2005- 2010
01 ROAD 0039	2005- 2010
01 ROAD 0040	2010- 2015
01 ROAD 0042	2010- 2015
01 ROAD 0043	2010- 2015
01 ROAD 0045	2010- 2015
01 ROAD 0049	Existing
01 ROAD 0053	Existing
01 ROAD 0054	2010- 2015
01 ROAD 0064	2005- 2010
01 ROAD 0067	2005- 2008
01 ROAD 0068	2010- 2015
01 ROAD 0071	2010- 2015
01 ROAD 0072	2010- 2015
01 ROAD 0073	2010- 2015
01 ROAD 0074	2005- 2010
01 ROAD 0075	Existing
01 ROAD 0077	2010- 2015
01 ROAD 0078	2010- 2015
01 ROAD 0079	2010- 2015
01 ROAD 0080	2010- 2015
01 ROAD 0081	2010- 2015
01 ROAD 0082	2010- 2015
01 ROAD 0083	Existing
01 ROAD 0090	2005- 2010
01 ROAD 0091	2005- 2010
01 ROAD 0093	2005- 2010
01 ROAD 0096	Existing
01 ROAD 0099	Existing
01 ROAD 0100	Existing
01 ROAD 0101	2010- 2015
01 ROAD 0102	2010- 2015
01 ROAD 0103	2005- 2010
01 ROAD 0104	2010- 2015
01 ROAD 0105	2010- 2015
01 ROAD 0106	2010- 2015
01ROAD0109	On going
01 ROAD 0120	Existing
01 ROAD 0124	2005- 2010
01 ROAD 0126	2005- 2010
01 ROAD 0127	2010- 2015
01 ROAD 0128	2010- 2015
01 ROAD 0129	2005- 2010
01 ROAD 0131	2010- 2015
01 ROAD 0132	2010- 2015
01 ROAD 0133	On going
01 ROAD 0137	2005- 2010
01 ROAD 0141	Existing
01 ROAD 0142	2010- 2015
01 ROAD 0143	2010- 2015

In some cases it may not be cost-effective to construct a project until the benefit area generates at least 80% of the demand.

References

- Section 94 Environmental Planning & Assessment Act, 1979;
- Clauses 26-38 (inclusive) Environmental Protection and Authority Regulations 2000; and
- Shoalhaven City Council Contributions Plan Manual.

Section 94 Contributions Plan 2004 Area 1 Roads and Traffic Control, being this written Statement and accompanying maps, which was exhibited from 14th April 2005 to 16th May 2005 and was:

Adopted by Council: 2 November 2005

and

Became effective from: 30 November 2005

R D Pigg
General Manager

Date: 22 – 11 - 05

Appendices

A Deleted Projects
B Updated and Retained Projects
C New Projects
D Proposed Contribution Rates
E Apportionment and Estimated Cost Tables
F Benefit Area Maps

APPENDIX A – DELETED PROJECTS: REASONS FOR DELETION

PROJECT NUMBER	DESCRIPTION	REASON
01 ROAD 0001	Back Forest Road	Project completed
01 ROAD 0002	O'Keefe Lane	Project completed
01 ROAD 0003	Mullers Lane	Project completed
01 ROAD 0004	Austral Park Rd	No contributions received
01 ROAD 0005	Agars Lane	Contributions collected
01 ROAD 0006	Wire Lane South	Contributions collected
01 ROAD 0008	Turners Lane	Benefit Area developed
01 ROAD 0009	Morschels Lane	Benefit Area developed
01 ROAD 0010	Lamonds Lane	No contributions received
01 ROAD 0011	Fletchers Lane	Spend balance on project
01 ROAD 0012	Pestells Lane	No contributions received
01 ROAD 0013	Grahams Road	Project completed
01 ROAD 0014	Devitts Lane	Benefit Area developed
01 ROAD 0015	Strongs Road	Project completed
01 ROAD 0016	Schofields Lane	Project completed
01 ROAD 0017	Croziers Road	No contributions received
01 ROAD 0018	Croziers Road	Benefit Area developed
01 ROAD 0019	Bong Bong Rd	Project completed
01 ROAD 0020	Bundewallah Rd	Project completed
01 ROAD 0021	Irvines Road	Contributions collected
01 ROAD 0022		No contributions received
01 ROAD 0023		No contributions received
01 ROAD 0024	Taylors Lane	Benefit Area developed
01 ROAD 0029	Old Boxsells Rd	No contributions received
01 ROAD 0030	Carrington Road	Benefit Area developed
01 ROAD 0031	Tannery Road	Benefit Area developed
01 ROAD 0032	Barfield Road	No contributions received
01 ROAD 0033	Main Road	Project completed
01 ROAD 0034	Main Road	Benefit Area developed
01 ROAD 0035	Hillcrest Avenue	Project completed
01 ROAD 0036	G'well Pnt Rd	Project completed
01 ROAD 0037	Old Southern Road	Project completed
01 ROAD 0041	Tullouch Road	Project completed
01 ROAD 0044	Wattamolla Rd	Project completed
01 ROAD 0046	Wattamolla Rd	Contributions collected
01 ROAD 0047	Formans Road	Benefit Area developed
01 ROAD 0048	Priddles Lane	Benefit Area developed
01 ROAD 0050	Wattamolla Jtion	Project completed
01 ROAD 0051	Kan. Valley Rd	Project completed
01 ROAD 0052	Tourist Road	Contributions collected
01 ROAD 0055	Gerringong Ck Br	No contributions received
01 ROAD 0056	Gerringong Ck Rd	No contributions received
01 ROAD 0057	Kings Creek Br	No contributions received

APPENDIX A – DELETED PROJECTS: REASONS FOR DELETION ….cont

PROJECT NUMBER	DESCRIPTION	REASON
01 ROAD 0058	Gerringong Ck Rd	No contributions received
01 ROAD 0059	Kellys Road	Benefit area developed
01 ROAD 0060	Battys Road	Benefit area developed
01ROAD 0061	Jarretts Road	Non-Council right of way
01 ROAD 0062	Scotts Road	No contributions received
01 ROAD 0063	Mackays Road	Contributions collected
01 ROAD 0065	Upper River Road	Project completed
01 ROAD 0066	Upper River Road	Benefit Area developed
01 ROAD 0069	Glenmurray Rd	No contributions received
01 ROAD 0070	Bunkers Hill Rd	Project no longer required
01 ROAD 0076	Main/TapitalleeRd	Contributions collected
01 ROAD 0084	Yalwal Road	Project compoleted
01 ROAD 0085	Yalwal Rd (Danjera)	No contributions received
01 ROAD 0086	Yalwal Rd (Yalwal)	No contributions received
01 ROAD 0087	Burrier Road	Project completed
01 ROAD 0088	Wogamia Rd	No contributions received
01 ROAD 0089	Yerriyong Rd	Benefit area developed
01 ROAD 0092	Hames Rd	Benefit area developed
01 ROAD 0094	Mulgen Ck Cross	Project completed
01 ROAD 0095	Braidwood Rd	Project no longer required
01 ROAD 0097	Mayfield Rd	Contributions collected
01 ROAD 0098	Springbank Rd	Project completed
01 ROAD 0107	Browns Rd	Project completed
01 ROAD 0108	Albatross Rd	Benefit area developed
01 ROAD 0110	Albany Street	No contributions received
01 ROAD 0111	Coolangatta Rd	No contributions received
01 ROAD 0112	Tindalls Lane	No contributions received
01 ROAD 0113	Koloona Drive	No contributions received
01 ROAD 0114	Gerroa Road	No contributions received
01 ROAD 0115	Comerong Isl Rd	No contributions received
01 ROAD 0116	Jarretts Ln	No contributions received
01 ROAD 0117	Mt Scanzi Rd	Project no longer required
01 ROAD 0118	Moeyan Rd	No contributions received
01 ROAD 0119	Willowglen Rd	No contributions received
01 ROAD 0121	BTU Rd	No contributions received
01 ROAD 0122	Abernethys Rd	No contributions received
01 ROAD 0123	Mount Scanzi Rd	Project no longer required
01 ROAD 0125	Nugents Creek Rd	Contributions collected
01 ROAD 0130	Chalmers Rd	Project no longer required
01 ROAD 0200	Andersons Ln	Contributions collected
01 ROAD 0201	Schofields Ln	Contributions collected
01 ROAD 0202	Beach Rd	Transfer to 01 ROAD 0133

APPENDIX B – UPDATED AND RETAINED PROJECTS: APPORTIONMENT

PROJECT NUMBER	DESCRIPTION	COUNCIL SHARE	%	DEVELOPER CONTRIBUTION	%	ESTIMATED COST
01 ROAD 0007	Beach (Tannery) Road	$345,835	61.47%	$216,755	38.53%	$858,270
01 ROAD 0025	Lilly Pilly Lane	$0	39.77%	$113,100	60.23%	$113,100
01 ROAD 0026	Ironbark Road	$0	53.85%	$91,710	46.15%	$91,710
01 ROAD 0027	Flannery Lane	$0	37.50%	$200,320	62.50%	$200,320
01 ROAD 0028	Browns Mountain Road	$0	68.75%	$236,650	31.25%	$236,650
01 ROAD 0038	Old Southern Rd	$119,860	14.69%	$695,820	85.31%	$815,680
01 ROAD 0039	Quinns Ln/Old Sthn Rd R'bout	$205,950	61.54%	$128,700	38.46%	$334,650
01 ROAD 0040	Quinns Lane	$31,552	46.81%	$35,848	53.19%	$67,400
01 ROAD 0042	Broughton Vale Road	$260,382	81.25%	$60,088	18.75%	$320,470
01 ROAD 0043	Brogers Creek Road	$631,544	92.50%	$51,206	7.50%	$682,750
01 ROAD 0045	Wattamolla Road	$473,481	90.00%	$52,609	10.00%	$526,090
01 ROAD 0054	Gerringong Creek Road	$72,069	34.48%	$136,931	65.52%	$209,000
01 ROAD 0064	Upper River Road	$152,861	70.14%	$65,089	29.86%	$217,950
01 ROAD 0067	Jacks Corner Road	$133,082	73.47%	$48,058	26.53%	$181,140
01 ROAD 0068	Green Valley Road	$216,765	64.29%	$120,425	35.71%	$337,190
01 ROAD 0071	Carters Road	$90,561	81.25%	$20,899	18.75%	$111,460
01 ROAD 0072	Grahams Road	$275,005	78.95%	$73,335	21.05%	$348,340
01 ROAD 0073	Emerys Road	$282,503	48.39%	$301,337	51.61%	$583,840
01 ROAD 0074	Illaroo Road	$155,641	65.17%	$83,179	34.83%	$238,820
01 ROAD 0077	Selbys Road	$29,262	30.00%	$68,278	70.00%	$97,540
01 ROAD 0078	Lower Bugong Road	$121,088	23.81%	$387,48	76.19%	$508,570
01 ROAD 0079	Bundanon Road	$76.967	9.52%	$731,183	90.48%	$808,150
01 ROAD 0080	Bundanon Road Illaroo	$86,713	27.66%	$226,787	72.34%	$313,500
01 ROAD 0081	Hughs Road	$86,059	17.65%	$401,611	82.35%	$487,670
01 ROAD 0082	Bugong Road	$525,579	47.15%	$589,111	52.85%	$1,114,690

APPENDIX B – UPDATED AND RETAINED PROJECTS: APPORTIONMENT …cont

PROJECT NUMBER	DESCRIPTION	COUNCIL SHARE	%	DEVELOPER CONTRIBUTION	%	ESTIMATED COST
01 ROAD 0090	Parma Road [Western End]	$169,435	53.33%	$148,256	46.67%	$317,690
01 ROAD 0091	Parma Road [Eastern End]	$237,894	79.41%	$61,676	20.59%	$299,570
01 ROAD 0093	Beinda/Brinawarr Streets	$67,289	85.77%	$11,161	14.23%	$78,450
01 ROAD 0101	North Nowra Link Road	$7,324,250	63.69%	$4,175,750	36.31%	$11,500,000
01 ROAD 0102	Princes Highway	$0	0.00%	$475,530	100.00%	$475,530
01 ROAD 0103	Sth Nowra Service Road	$208,971	64.84%	$113,329	35.16%	$322,300
01 ROAD 0104	Sth Nowra Internal Service Rd	$0	0.00%	$2,967,000	100.00%	$2,967,000
01 ROAD 0105	Int Service Road Drainage	$0	0.00%	$987,470	100.00%	$987,470
01 ROAD 0106	Bomaderry Industrial Bypass	$5,180,274	33.51%	$10,279,727	66.49%	$15,460,000
01 ROAD 0109	Burrier Road	Subject to further investigation				
01 ROAD 0124	Moss/Brereton Sts R'bout	$111,912	74.61%	$38,088	25.39%	$150,000
01 ROAD 0126	Nowra CBD Traffic Facilities	$1,638,304	80.63%	$393,486	19.37%	$2,031,790
01 ROAD 0127	Moss Vale / Carters Roads	$57,863	76.32%	$17,957	23.68%	$75,820
01 ROAD 0128	Riversdale Road	$0	0.00%	$202,310	100.00%	$202,310
01 ROAD 0129	Spotted Gum Drive	$0	0.00%	$143,670	100.00%	$143,670
01 ROAD 0131	Illaroo Road Tapitallee	$0	0.00%	$60,350	100.00%	$60,350
01 ROAD 0132	Illaroo Road Tapitallee	$0	0.00%	$534,200	100.00%	$534,200
01 ROAD 0133	Beach Road / Tannery Road	$0	0.00%	Ongoing	100.00%	Base rate $0.31 per t
01 ROAD 0137	Boston Road	$0	0.00%	$182,790	100.00%	$182,790

APPENDIX C – NEW PROJECTS

PROJECT NUMBER	DESCRIPTION	COUNCIL SHARE	% EST COST	S94 SHARE	% EST COST	ESTIMATED COST
01 ROAD 0142	Yalwal Road	$287,770	86.18%	$46,140	13.82%	$333,910
01 ROAD 0143	Quinns/Browns Link	$0	0.00%	$379,570	100.00%	$379,570
	Total =	$287,770	40.33%	$425,710	59.67%	$713,480

APPENDIX D – PROPOSED CONTRIBUTION RATES

PROJECT NUMBER	DESCRIPTION	CONTRIBUTION RATE
01 ROAD 0007 Benefit Area 1	Beach (Tannery) Road	$11,301.17/E.T.
01 ROAD 0007 Benefit Area 2	Beach (Tannery) Road	$3,715.45/E.T.
01 ROAD 0025	Lilly Pilly Lane	$10,669.81/E.T.
01 ROAD 0026	Ironbark Road	$15,285.00/E.T.
01 ROAD 0027	Flannery Lane	$13,354.67/E.T.
01 ROAD 0028	Browns Mountain Road	$15,776.67/E.T.
01 ROAD 0038	Old Southern Road	$ 1,094.06/E.T.
01 ROAD 0039	Quinns Ln/Old Sthn Rd R'bout	$ 125.93/E.T.
01 ROAD 0040	Quinns Lane	$ 35.63/E.T.
01 ROAD 0042	Broughton Vale Road	$ 5,007.34/E.T.
01 ROAD 0043	Brogers Creek Road	$17,068.75/E.T.
01 ROAD 0045	Wattamolla Road	$17,536.33/E.T.
01 ROAD 0049	Woodhill Mountain Road	$808.02/E.T.
01 ROAD 0053	Kangaroo River Bridge	$21,497.61/E.T.
01 ROAD 0054	Gerringong Creek Road	$ 7,206.90/E.T.
01 ROAD 0064	Upper River Road	$ 2,958.60/E.T.
01 ROAD 0067	Jacks Corner Road	$ 3,696.73/E.T.
01 ROAD 0068	Green Valley Road	$24,085.00/E.T.
01 ROAD 0071	Carters Road	$ 6,966.23/E.T.
01 ROAD 0072	Grahams Road	$18,333.68/E.T.
01 ROAD 0073	Emerys Road	$18,833.55/E.T.
01 ROAD 0074	Illaroo Road	$ 487.56/E.T.
01 ROAD 0075	Illaroo Road	$ 107.54E.T.
01 ROAD 0077	Selbys Road	$ 9,754.00/E.T.
01 ROAD 0078	Lower Bugong Road	$24,217.61/E.T.
01 ROAD 0079	Bundanon Road	$38,483.33/E.T.
01 ROAD 0080	Bundanon Road Illaroo	$ 6,670.21/E.T.
01 ROAD 0081	Hughs Road	$28,686.47/E.T.
01 ROAD 0082	Bugong Road	$17,326.78/E.T.
01 ROAD 0083	Cabbage Tree Lane	$2,652.84/E.T.
01 ROAD 0090	Parma Road [Western End]	$21,179.36/E.T.
01 ROAD 0091	Parma Road [Eastern End]	$ 8,810.88/E.T.
01 ROAD 0093	Beinda/Brinawarr Streets	$404.38/E.T.
01 ROAD 0096 Benefit Area 1	Pyree Lane/Culburra Road	$83.77/E.T.
01 ROAD 0096 Benefit Area 2	Pyree Lane/Culburra Road	$94.12/E.T.
01 ROAD 0096 Benefit Area 3	Pyree Lane/Culburra Road	$95.81/E.T.
01 ROAD 0096 Benefit Area 4	Pyree Lane/Culburra Road	$98.53/E.T.

APPENDIX D – PROPOSED CONTRIBUTION RATES … cont

PROJECT NUMBER	DESCRIPTION	CONTRIBUTION RATE
01 ROAD 0096 Benefit Area 5	Pyree Lane/Culburra Road	$95.81/E.T.
01 ROAD 0096 Benefit Area 6	Pyree Lane/Culburra Road	$95.81/E.T.
01 ROAD 0099 Benefit Area 1	Greenwell Point Road	$22.21/E.T.
01 ROAD 0099 Benefit Area 2	Greenwell Point Road	$24.96/E.T.
01 ROAD 0099 Benefit Area 3	Greenwell Point Road	$25.41/E.T.
01 ROAD 0099 Benefit Area 4	Greenwell Point Road	$26.13/E.T.
01 ROAD 0099 Benefit Area 5	Greenwell Point Road	$25.41/E.T.
01 ROAD 0099 Benefit Area 6	Greenwell Point Road	$23.91/E.T.
01 ROAD 0099 Benefit Area 7	Greenwell Point Road	$30.69/E.T.
01 ROAD 0100	Greenwell Point Road	$49.42/E.T.
01 ROAD 0101 Benefit Area 1	North Nowra Link Road	$ 2,169.07/E.T.
01 ROAD 0101 Benefit Area 2	North Nowra Link Road	$ 1,499.28/E.T.
01 ROAD 0101 Benefit Area 3	North Nowra Link Road	$ 2,920.82/E.T.
01 ROAD 0101 Benefit Area 4	North Nowra Link Road	$ 5,016.89/E.T.
01 ROAD 0101 Benefit Area 5	North Nowra Link Road	$ 3,630.16/E.T.
01 ROAD 0101 Benefit Area 6	North Nowra Link Road	$ 4,443.19/E.T.
01 ROAD 0101 Benefit Area 7	North Nowra Link Road	$ 2,603.13/E.T.
01 ROAD 0102	Princes Highway	$ 270.19/E.T.
01 ROAD 0103	South Nowra Service Road	$ 655.08/L.M.
01 ROAD 0104	Sth Nowra Int Service Road	$ 618.13/L.M.
01 ROAD 0105	Int Service Road Drainage	$ 3.82/S.M.
01 ROAD 0106	Bomaderry Bypass	$ 18.78/S.M.
01 ROAD 0120 Benefit Area 1	Judith Dr/Page Ave R'bout	$1,902.62/E.T
01 ROAD 0120 Benefit Area 1	Judith Dr/Page Ave R'bout	$2,946.48/E.T
01 ROAD 0120 Benefit Area 1	Judith Dr/Page Ave R'bout	$1,140,96/E.T
01 ROAD 0124	Moss/Brereton Sts R'bout	$ 705.75/Unit
01 ROAD 0124	Moss/Brereton Sts R'bout	$ 211.45/Bed
01 ROAD 0126 Benefit Area 1	Nowra CBD and Traffic Facilities	$ 111,159/L.S.
01 ROAD 0126 Benefit Area 2	Nowra CBD Traffic Facilities	$ 282,327/L.S.
01 ROAD 0127	Moss Vale / Carters Roads	$ 1,995.26/E.T.
01 ROAD 0128	Riversdale Road	$18,391.82/E.T.
01 ROAD 0129	Spotted Gum Drive	$11,972.50/E.T.
01 ROAD 0131	Illaroo Road Tapitallee	$ 1,311.96/E.T.
01 ROAD 0132	Illaroo Road Tapitallee	$ 4,253.18/E.T.
01 ROAD 0133	Beach Road / Tannery Road	$ 0.31/TONNE
01 ROAD 0137	Boston Road	$ 4,686.92/E.T.
01 ROAD 0141 Benefit Area 1	Central Ave Roundabout	$0.33/S.M.
01 ROAD 0141 Benefit Area 2	Central Ave Roundabout	$6.43/S.M.
01 ROAD 0141 Benefit Area 3	Central Ave Roundabout	$536.31/E.T.
01 ROAD 0141 Benefit Area 3A	Central Ave Roundabout	$1.34/S.M.
01 ROAD 0142	Yalwal Road	$607.11/E.T.
01 ROAD 0143	Quinns/Browns Ind.Link Rd	$ 11.35/S.M.

Appendix E - 01 ROAD 0007 - Beach/Tannery Road, Berry

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0007	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T.(lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1 (Rural Residential)	49	21	3	73	657	31.60%	$271,228	$11,301.17
2 (Rural)	69	4	12	85	765	36.80%	$315,814	$3,715.45
Assumed Through Traffic					657	31.60%	$271,228	
					2,079	100.00%	$858,270	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

Project 01 ROAD 0007 Estimated Cost								
	Length		Width	Quantity	x	Rate	=	Total
Upgrade and Seal Pavement	2,350	m x	6.1	14,335 m2	x	$32	=	$458,720
Bridge	13.5	m x	10	135 m2			=	$300,000
					x	Sub-Total	=	$758,720
Design				3.0%	x	$758,720	=	$13,890
Supervision				3.0%	x	$758,720	=	$13,890
Administration and On-costs				15.5%	x	$758,720	=	$71,770
					x	Estimated Project Cost	=	$858,270

Appendix E - 01 ROAD 0025 - Lilly Pilly Lane, Tapitallee
Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0025	ESTIMATED EQUIVALENT TENEMENTS (lots/dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot/dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	7	0	10.6	17.6	158.4	100.00%	$113,100	$10,669.81
Assumed Through Traffic					0	0.00%	$0	
					158	100.00%	$113,100	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0025 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	370	m x	5	1,850m^2	x	$36.82	=	$68,120
Intersection	124	m x	3.5	434 m^2	x	$36.54	=	$15,860
Intersection	Excavator			1day	x	$830.00	=	$830
	Truck			1day	x	$450.00	=	$450
Pavement and Seal				100 m^2	x	$26.10	=	$2,610
Lighting				1 item	x	$5,220.00	=	$5,220
						Sub-Total	=	$93,090
Design				3.0%	x	$93,090	=	$2,790
Supervision				3.0%	x	$93,090	=	$2,790
Administration and On Costs				15.5%		$93,090	=	$14,430
						Estimated Project Cost	=	$113,100

Appendix E - 01 ROAD 0026 – Ironbark Road, Tapitallee

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0026	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area cost	
1	6	1	6	13	117	100.00%	$91,710	$15,285.00
Assumed Through Traffic					0	0.00%	$0	
					117	100.00%	$91,710	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0026 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	410	m x	5	2,050m^2	x	$36.82	=	$75,480
Design				3.0%	x	$75,480	=	$2,265
Supervision				3.0%	x	$75,480	=	$2,265
Administration and On Costs				15.5%	x	$75,480	=	$11,700
Share of Illaroo Road Int.				31.58%	x	$0	=	$23,540
						Estimated Project Cost	=	$91,710

Appendix E - 01 ROAD 0027 – Flannery Lane, Tapitallee

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0027	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	8	1	15	24	216	100.00%	$200,320	$13,354.67
Assumed Through Traffic					0	0.00%	$0	
					216	100.00%	$200,320	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0027 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	850	m x	5	4,250m^2	x	$36.82	=	$156,485
Design				3.0%	x	$156,485	=	$4,695
Supervision				3.0%	x	$156,485	=	$4,695
Administration and On-Costs				15.5%	x	$156,485	=	$24,255
Share of Illaroo Road Int.				44.0%item	x	$23,164	=	$10,190
						Estimated Project Cost	=	$200,320

Appendix E - 01 ROAD 0028 – Browns Mountain Road, Tapitallee

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0028	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	25	8	15	48	432	100.00%	$236,650	$15,776.67
Assumed Through Traffic					0	0.00%	$0	
					432	100.00%	$236,650	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0028 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	1,000	m x	5	5,000m^2	x	$36.82	=	$184,100
Design				3.0%	x	$184,100	=	$5,520
Supervision				3.0%	x	$184,100	=	$5,520
Administration and On-Costs				15.5%	x	$184,100	=	$28,540
Share of Illaroo Road Int.				56.0%	x	$0	=	$12,970
						Estimated Project Cost	=	$236,650

Appendix E - 01 ROAD 0038 – Old Southern Road – South of Quinns Lane, South Nowra
Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0038	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	28	7	636	671	6,039	90.00%	$734,112	$1,094.06
Assumed Through Traffic					671	10.00%	$81,568	
					6,710	100.00%	$815,680	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0038 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	1,000	m x	8	8,000m^2	x	$36.82	=	$294,560
Kerb and Gutter	1,000	m x	2	2,000 m^2	x	$104.33	=	$208,660
Drainage Pipe	375	RR	Class Y	50 m^2	x	$89.60	=	$4,480
Drainage Pipe	375		Class X	50 m^2	x	$73.64	=	$3,680
Drainage Pipe	450		Class Y	10 m^2	x	$123.97	=	$1,240
Drainage Pipe	450		Class X	200 m^2	x	$104.33	=	$20,870
Drainage Pipe	525		Class Y	10 m^2	x	$155.88	=	$1,560
Drainage Pipe	525		Class X	140 m^{22}	x	$131.33	=	$18,390
Drainage Pipe	600		Class Y	20 m^2	x	$193.93	=	$3,880
Drainage Pipe	600		Class X	200 m^2	x	$162.02	=	$32,400
Drainage Pipe	750		Class Y	10 m^2	x	$321.58	=	$3,220
Drainage Pipe	750		Class X	220 m^2	x	$250.39	=	$55,090
Drainage Pit	standard			23 item	x	$613.70	=	$14,110

01 ROAD 0038 Estimated Cost …cont								
Drainage Pit	large			4 item	x	$1,227.40	=	$4,910
Erosion Control Headwalls	standard			3 Item	x	$1,227.40	=	$3,680
Erosion Control Headwalls	large			1 item	x	$613.70	=	$610
						Sub-Total	=	$671,340
Survey, Design and Supervision				6.0%		$671,340	=	$40,280
Administration and On-Costs				15.5%		$671,340	=	$104,060
						Estimated Project Cost	=	$815,680

Appendix E - 01 ROAD 0039 – Quinns Lane/Old Southern Road Roundabout, South Nowra
Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0039	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	34	7	1,022	1,063	9,567	40.00%	$133,863	$125.93
Assumed Through Traffic					14,350	60.00%	$200,787	
					23,917	100.00%	$334,650	

Note 1: For traffic generation, refer to the East Nowra Traffic Study by R.J. Nairn & Partners P/L.

Note 2: NSW Traffic Authority guidelines 9 vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0039 Estimated Cost							
	Length	Width	Quantity		Rate		Total
Construct Roundabout			1 item	x	$201,355	=	$201,355
Traffic Management [site, traffic, environmental, safety and quality management plans]			1 item	x	$29,170	=	$29,170
Street Lighting [design and installation]			1 item	x	$34,800	=	$34,800
					Sub-Total	=	$265,325
Survey and Supervision			3.0%	x	$265,325	=	$7,960
Design			3.0%	x	$265,325	=	$7,960
Administration and On-costs			15.5%	x	$265,325	=	$41,123
Land Acquisition			1 item	x	$12,280	=	$12,280
					Estimated Project Cost	=	$334,650

Appendix E - 01 ROAD 0040 – Quinns Lane, South Nowra

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0040	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	50	7	1,006	1,063	9,567	56.20%	$37,879	$35.63
Assumed Through Traffic					7,456	43.80%	$29,521	
					17,023	100.00%	$67,400	

Note 1: For traffic generation, refer to the East Nowra Traffic Study by R.J. Nairn & Partners P/L.

Note 2: NSW Traffic Authority Guidelines 9 vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0040 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Rehabilitate Pavement	600m	x	8	4,800m^2	x	$10.01	=	$48,060
Widen Pavement	100	x	2	200 m^2	x	$37.08	=	$7,420
						Sub-Total	=	$55,480
Design				3.0%	x	$55,480	=	$1,660
Supervision				3.0%	x	$55,480	=	$1,660
Administration and On-costs				15.5%	x	$55,480	=	$8,600
						Estimated Project Cost	=	$67,400

Appendix E - 01 ROAD 0042 – Broughton Vale Road, Broughton Vale

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0042	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	43	9	12	64	576	100.00%	$320,470	$5,007.34
Assumed Through Traffic					0	0.00%	$0	
					576	100.00%	$320,470	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0042 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	2,300m	x	6.1	14,030m^2	x	$18.80	=	$263,765
Design				3.0%	x	$263,765	=	$7,910
Supervision				3.0%	x	$263,765	=	$7,910
Administration and On-costs				15.5%	x	$263,765	=	$40,885
						Estimated Project Cost	=	$320,470

Appendix E - 01 ROAD 0043 – Brogers Creek Road, Brogers Creek

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0043	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	36	1	3	40	360	100.00%	$682,750	$17,068.75
Assumed Through Traffic					0	0.00%	$0	
					360	100.00%	$682,750	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0043 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	4,900m	x	6.1	29,890m^2	x	$18.80	=	$561,930
Design				3.0%	x	$561,930	=	$16,860
Supervision				3.0%	x	$561,930	=	$16,860
Administration and On-costs				15.5%	x	$561,930	=	$87,100
						Estimated Project Cost	=	$682,750

Appendix E - 01 ROAD 0045 – Wattamolla Road, Wattamolla

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0045	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	14	1	3	18	162	60.00%	$315,654	$17,536.33
Assumed Through Traffic					108	40.00%	$210,436	
					270	100.00%	$526,090	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0045 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	2,100m	x	5.6	11,760m^2	x	$36.82	=	$433,000
Design				3.0%	x	$433,000	=	$12,990
Supervision				3.0%	x	$433,000	=	$12,990
Administration and On-costs				15.5%	x	$433,000	=	$67,110
						Estimated Project Cost	=	$526,090

Appendix E - 01 ROAD 0049 – Woodhill Mountain Road, Berry – Recoupment Project

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0049 RECOUPMENT PROJECT	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	160	38	26	224	2,016	75.00%	$180,998	$808.02
Assumed Through Traffic					672	25.00%	$60,333	
					2,688	100.00%	$241,331	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

Appendix E - 01 ROAD 0053 – Kangaroo River Bridge at Gerringong Creek, Upper Kangaroo Valley

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0053RECOUPMENT PROJECT	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	11	10	12	33	297	100.00%	$709,421	$21,497.61
Assumed Through Traffic					0	0.00%	$0	
					297	100.00%	$709,421	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

Appendix E - 01 ROAD 0054 – Gerringong Creek Road, Upper Kangaroo Valley

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0054	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	10	6	13	29	261	100.00%	$209,000	$7,206.90
Assumed Through Traffic					0	0.00%	$0	
					261	100.00%	$209,000	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0054 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	1,500m	x	6.1	9,150m^2	x	$18.80	=	$172,020
Design				3.0%	x	$172,020	=	$5,160
Supervision				3.0%	x	$172,020	=	$5,160
Administration and On-costs				15.5%	x	$172,020	=	$26,660
						Estimated Project Cost	=	$209,000

Appendix E - 01 ROAD 0064 – Upper River Road, Upper Kangaroo Valley

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0064	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	38	10	22	70	630	95.02%	$207,102	$2,958.60
Assumed Through Traffic					33	4.98%	$10,848	
					663	100.00%	$217,950	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0064 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	870m	x	5.6	4,872m^2	x	$36.82	=	$179,390
Design				3.0%	x	$179,390	=	$5,380
Supervision				3.0%	x	$179,390	=	$5,380
Administration and On-costs				15.5%	x	$179,390	=	$27,800
						Estimated Project Cost	=	$217,950

Appendix E - 01 ROAD 0067 – Jacks Corner Road, Upper Kangaroo Valley

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0067	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	36	3	10	49	441	100.00%	$181,140	$3,696.73
Assumed Through Traffic					0	0.00%	$0	
					441	100.00%	$181,140	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0067 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	1,300m	x	6.1	7,930m^2	x	$18.80	=	$149,085
Design				3.0%	x	$149,085	=	$4,475
Supervision				3.0%	x	$149,085	=	$4,475
Administration and On-costs				15.5%	x	$149,085	=	$23,105
						Estimated Project Cost	=	$181,140

Appendix E - 01 ROAD 0068 – Green Valley Road, Beaumont

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0068	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	8	1	5	14	126	100.00%	$337,190	$24,085.00
Assumed Through Traffic					0	0.00%	$0	
					126	100.00%	$337,190	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0068 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	2,420m	x	6.1	14,762m^2	x	$18.80	=	$277,525
Design				3.0%	x	$277,525	=	$8,325
Supervision				3.0%	x	$277,525	=	$8,325
Administration and On-costs				15.5%	x	$277,525	=	$43,015
						Estimated Project Cost	=	$337,190

Appendix E - 01 ROAD 0071 – Carters Road, Kangaroo Valley (Barrengary)

Contributions Apportionment Table

BENEFIT AREA ROAD 0071	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	11	2	3	16	144	100.00%	$111,460	$6,966.23
Assumed Through Traffic					0	0.00%	$0	
					144	100.00%	$111,460	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0071 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	800m	x	6.1	4,880m^2	x	$18.80	=	$91,740
Design				3.0%	x	$91,740	=	$2,750
Supervision				3.0%	x	$91,740	=	$2,750
Administration and On-costs				15.5%	x	$91,740	=	$14,220
						Estimated Project Cost	=	$111,460

Appendix E - 01 ROAD 0072 – Grahams Road, Kangaroo Valley (Barrengary)

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0072	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	14	1	4	19	171	100.00%	$348,340	$18,333.68
Assumed Through Traffic					0	0.00%	$0	
					171	100.00%	$348,340	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0072 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	2,500m	x	6.1	15,250m^2	x	$18.80	=	$286,700
Design				3.0%	x	$286,700	=	$8,600
Supervision				3.0%	x	$286,700	=	$8,600
Administration and On-costs				15.5%	x	$286,700	=	$44,440
						Estimated Project Cost	=	$348,340

Appendix E - 01 ROAD 0073 – Emerys Road, Emerys Plateau

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0073	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	15	11	5	31	279	100.00%	$583,840	$18,833.55
Assumed Through Traffic					0	0.00%	$0	
					279	100.00%	$583,840	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0073 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	4,260m	x	6	25,560m^2	x	$18.80	=	$480,530
Design				3.0%	x	$480,530	=	$14,415
Supervision				3.0%	x	$480,530	=	$14,415
Administration and On-costs				15.5%	x	$480,530	=	$74,480
						Estimated Project Cost	=	$583,840

Appendix E - 01 ROAD 0074 – Illaroo Road 1,333m Bangarra Lane to Bangalee Road, Tapitallee

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0074	ESTIMATED EQUIVALENT TENEMENTS(lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Sep 2002 Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	284	35	136	455	4,091	92.81%	$221,647	$487.56
Assumed Through Traffic					317	7.19%	$17,173	
					4,408	100.00%	$238,820	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0074 Estimated Cost								
Rehabilitate Pavement and Strengthen as required	Length		Width	Quantity		Rate		Total
	1,333m	x	9	12,000m^2	x	$14.59	=	$175,030
Erosion Control				1,000item	x	$21.53	=	$21,530
					x	Sub-Total	=	$196,560
Design				3.0%	x	$196,560	=	$5,895
Supervision				3.0%	x	$196,560	=	$5,895
Administration and On-costs				15.5%	x	$196,560	=	$30,470
						Estimated Project Cost	=	$238,820

Appendix E - 01 ROAD 0075 – Illaroo Road 7.2km from Princes Highway for 300m from Bangalee Road, Tapitallee

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0075 RECOUPMENT PROJECT	ESTIMATED EQUIVALENT TENEMENTS(lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T (lot / dwelling)
	Sep 2002 Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	160	0	130	290	2,610	90.00%	$31,185	$107.54
Assumed Through Traffic					290	10.00%	$3,465	
					2,900	100.00%	$34,650	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0075 Recoupment Project Cost								
Rehabilitate Pavement and Strengthen as required	Length		Width	Quantity		Rate		Total
	300m	x	9	2,700m^2	x	$5.39	=	$14,550
Traffic Control and Miscellaneous				1item	x	$3,230	=	$3,230
Erosion Control				300	m x	$7.97	=	$2,390
						Sub-Total	=	$20,170
Design				3.0%	x	$20,174	=	$605
Supervision				3.0%	x	$20,174	=	$605
Administration and On-costs			15.5%	x	$20,174	=	$3,130	
						Sub-Total	=	$24,510
Widen Pavement to 7.2m from Browns Mountain Road east for 500m								
	500m	x	1.2	600 m^2	x	$13.92	=	$8,350

01 ROAD 0075 Recoupment Project Cost…cont								
Design				3.0%	x	$8,352	=	$250
Supervision				3.0%	x	$8,352	=	$250
Administration and On-costs				15.5%	x	$8,352	=	$1,290
						Sub-Total	=	$10,140
						Estimated Project Cost	=	$34,650

Appendix E – 01 ROAD 0077 – Selbys Road Upgrade Gravel Pavement 700m x 6.1m, Upper Bugong Creek

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0077	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
1	3	5	2	10	90	100.00%	$97,540	$9,754.00
Assumed Through Traffic					0	0.00%	$0	
					90	100.00%	$97,540	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0077 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	700m	x	6.1	4,270m^2	x	$18.80	=	$80,275
Design				3.0%	x	$80,275	=	$2,410
Supervision				3.0%	x	$80,275	=	$2,410
Administration and On-costs				15.5%	x	$80,275	=	$12,445
						Estimated Project Cost	=	$97,540

Appendix E – 01 ROAD 0078 – Lower Bugong Road, Bugong Vale

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0078	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit AreaCost	
1	3	2	16	21	189	100.00%	$508,570	$24,217.61
Assumed Through Traffic					0	0.00%	$0	
					189	100.00%	$508,570	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0078 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	3,650m	x	6.1	22,265m^2	x	$18.80	=	$418,580
Design				3.0%	x	$418,580	=	$12,555
Supervision				3.0%	x	$418,580	=	$12,555
Administration and On-costs				15.5%	x	$418,580	=	$64,880
						Estimated Project Cost	=	$508,570

Appendix E – 01 ROAD 0079 – Lower Bundanon Road, Illaroo

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0079	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	2	0	19	21	189	100.00%	$808,150	$38,483.33
Assumed Through Traffic					0	0.00%	$0	
					189	100.00%	$808,150	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0079 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	5,800m	x	6.1	35,380m^2	x	$18.80	=	$665,144
Design				3.0%	x	$665,144	=	$19,954
Supervision				3.0%	x	$665,144	=	$19,954
Administration and On-costs				15.5%	x	$665,144	=	$103,097
						Estimated Project Cost	=	$808,150

Appendix E – 01 ROAD 0080 – Bundanon Road, Illaroo

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0080	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	13	1	33	47	423	100.00%	$313,500	$6,670.21
Assumed Through Traffic					0	0.00%	$0	
					423	100.00%	$313,500	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0080 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	2,250m	x	6.1	13,725m^2	x	$18.80	=	$258,030
Design				3.0%	x	$258,030	=	$7,740
Supervision				3.0%	x	$258,030	=	$7,740
Administration and On-costs				15.5%	x	$258,030	=	$39,990
						Estimated Project Cost	=	$313,500

Appendix E – 01 ROAD 0081 – Hughes Road, Illaroo

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0081	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	3	0	14	17	153	100.00%	$487,670	$28,686.47
Assumed Through Traffic					0	0.00%	$0	
					153	100.00%	$487,670	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0081 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	3,500m	x	6.1	21,350m^2	x	$18.80	=	$401,380
Design				3.0%	x	$401,380	=	$12,040
Supervision				3.0%	x	$401,380	=	$12,040
Administration and On-costs				15.5%	x	$401,380	=	$62,210
						Estimated Project Cost	=	$487,670

Appendix E – 01 ROAD 0082 – Bugong Road, Bugong

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0082	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	27	11	23	61	549	94.82%	$1,056,934	$17,326.78
Assumed Through Traffic					30	5.18%	$57,756	
					579	100.00%	$1,114,690	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0082 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	8,000m	x	6.1	48,800m^2	x	$18.80	=	$917,440
Design				3.0%	x	$917,440	=	$27,523
Supervision				3.0%	x	$917,440	=	$27,523
Administration and On-costs				15.5%	x	$917,440	=	$142,203
						Estimated Project Cost	=	$1,114,690

Appendix E – 01 ROAD 0083 – Cabbage Tree Lane, West Nowra – Recoupment Project

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0083 RECOUPMENT PROJECT	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	20	191	32	243	2,187	100.00%	$644,640	$2,652.84
Assumed Through Traffic					0	0.00%	$0	
					2,187	100.00%	$644,640	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

Appendix E – 01 ROAD 0090 – Parma Road (Western End), Parma

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0090	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	8	0	7	15	135	100.00%	$317,690	$21,179.36
Assumed Through Traffic					0	0.00%	$0	
					135	100.00%	$317,690	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0090 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	2,280	m x	6.1	13,908m^2	x	$18.80	=	$261,470
Design				3.0%	x	$261,470	=	$7,845
Supervision				3.0%	x	$261,470	=	$7,845
Administration and On-costs				15.5%	x	$261,470	=	$40,530
						Estimated Project Cost	=	$317,690

Appendix E – 01 ROAD 0091– Parma Road (Eastern End), Parma

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0091	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	27	3	4	34	306	100.00%	$299,570	$8,810.88
Assumed Through Traffic					0	0.00%	$0	
					306	100.00%	$299,570	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0091 Estimated Cost								
Upgrade Gravel Pavement	Length		Width	Quantity		Rate		Total
Seal Treatment	2,150	m x	6.1	13,115m^2	x	$18.80	=	$246,560
Design				3.0%	x	$246,560	=	$7,395
Supervision				3.0%	x	$246,560	=	$7,395
Administration and On-costs				15.5%	x	$246,560	=	$38,220
						Estimated Project Cost	=	$299,570

Appendix E – 01 ROAD 0093 – Beinda and Brinawarr Streets, Bomaderry
Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0093	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	55	0	28	83	747	42.78%	$33,564	$404.38
Assumed Through Traffic					999	57.22%	$44,886	
					1,746	100.00%	$78,450	

Note: Traffic Authority of NSW Guidelines 9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0091 Estimated Cost								
Provision of Right Hand Turning Lane	Length		Width	Quantity		Rate		Total
Open Drain Pipe [Beinda St]								
2 x 600mm dia	70	x	2	140m	x	$384.71	=	$53,860
Widen Pavement	70m	x	7	490m^2	x	$4.49	=	$2,200
Trim, Spread and Compact	490m^2	x	0.225 + 10%	121.28m^3	x	$25.64	=	$3,110
Seal				490m^2	x	$4.49	=	$2,200
Traffic Control				1item	x	$2,560.00	=	$2,560
Linemarking				1item	x	$640.00	=	$640
						Sub-Total	=	$64,570
Design				3.0%	x	$64,570	=	$1,940
Supervision				3.0%	x	$64,570	=	$1,940
Administration and On-costs				15.5%	x	$64,570	=	$10,000
						Estimated Project Cost	=	$78,450

Appendix E – 01 ROAD 0096 – Pyree Lane/ Culburra Road, Pyree – Recoupment Project

Contributions Apportionment Table

BENEFIT AREA ROAD 0096 RECOUPMENT PROJECT	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	563	17	6	586	5,140	7.27%	$49,088	$83.77
2	1,742	458	184	2,384	23,497	33.25%	$224,379	$94.12
3	1	0	8	9	90	0.13%	$862	$95.81
4	2,264	287	808	3,359	34,658	49.05%	$330,959	$98.53
5	3	1	8	12	120	0.17%	$1,150	$95.81
6	4	1	4	9	90	0.13%	$862	$95.81
Assumed Through Traffic					7,064	10.00%	$67,460	
					70,660	100.00%	$674,760	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

Appendix E - 01 ROAD 00099 Greenwell Point Road, Worrigee – Recoupment Project

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0099 RECOUPMENT PROJECT	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	563	17	6	586	5,154	6.42%	$13,018	$22.21
2	1,742	458	184	2,384	23,559	29.33%	$59,503	$24.96
3	1	0	8	9	91	0.11%	$229	$25.41
4	2,264	287	808	3,359	34,749	43.26%	$87,767	$26.13
5	3	1	8	12	121	0.15%	$305	$25.41
6	646	72	51	769	7,279	9.06%	$18,385	$23.91
7	72	21	17	110	1,337	1.66%	$3,376	$30.69
Assumed Through Traffic					8,031	10.00%	$20,285	
					80,320	100.00%	$202,868	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

Appendix E - 01 ROAD 0100 Greenwell Point Road, Greenwell Point – Recoupment Project
Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0100 RECOUPMENT PROJECT	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	702	18	48	768	6,912	90.44%	$37,956	$49.42
Assumed Through Traffic					731	9.56%	$4,014	
					7,643	100.00%	$41,970	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

Appendix E - 01 ROAD 0101 North Nowra Link Road, North Nowra

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0101	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	1,139	47	62	1,248	1,626	23.54%	$2,706,998	$2,169.07
2	203	25	32	260	234	3.39%	$389,813	$1,499.28
3	109	180	39	328	575	8.33%	$958,029	$2,920.82
4	41	7	397	445	1,341	19.41%	$2,232,517	$5,016.89
5	35	15	36	86	188	2.71%	$312,194	$3,630.16
6	373	124	9	506	1,350	19.55%	$2,248,253	$4,443.19
7	110	31	127	268	419	6.07%	$697,640	$2,603.13
Assumed Through Traffic					1,174	17.00%	$1,954,555	
					6,907	100.00%	$11,500,000	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

Appendix E - 01 ROAD 0101 North Nowra Link Road, North Nowra… cont

01 ROAD 0101 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Clearing	1,680	m x	20	33,600m^2	x	$9.15	=	$307,440
Roadworks	1,680	m x	11	18,480m^2	x	$109.75	=	$2,028,180
Bridge	60	m x	11	660m^2	x	$4,756	=	$3,138,810
Environmental Protection				1item	x	$731,660	=	$731,660
Road Narrowing	at	Public School		1item	x	$146,300	=	$146,300
Roundabout	at	McMahons Road		1item	x	$438,980	=	$438,980
Roundabout	at	Falcon Crescent		1item	x	$365,830	=	$365,830
Roundabout	at	Page Avenue		1item	x	$292,670	=	$292,670
Illaroo RoadWest Diversion				1item	x	$186,120	=	$186,120
Earthworks				1item	x	$365,830	=	$365,830
Drainage				1item	x	$731,650	=	$731,600
Erosion Control				1uten	x	$731,650	=	$731,600
						Sub-Total	=	$9,465,020
Design				3.0%	x	$9,465,020	=	$283,950
Supervision				3.0%	x	$9,465,020	=	$283,950
Administration and On-costs				15.5%	x	$9,465,020	=	$1,467,080
						Estimated Project Cost	=	$11,500,000

Appendix E - 01 ROAD 0102 Princes Highway Drainage Works, South Nowra

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0102	ESTIMATED LINEAL METRES				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per Lineal Metre
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	0	139	1,621	1,760	N/A	N/A	$475,530	$270.19
Assumed Through Traffic					N/A	N/A	$0	
							$475,530	

01 ROAD 0102 Estimated Cost								
Construct Accelleration/Decelleration Lanes and Kerb + Gutter	Length		Width	Quantity		Rate		Total
Kerb + Gutter	960m	x				$169.24	=	$162,470
Shoulder Seal	960m	x				$142.96	=	$137,240
Driveway Restoration				1item	x	$40,600.00	=	$40,600
Services				1item	x	$10,860.00	=	$10,860
Site Establishment				1item	x	$19,690.00	=	$19,690
Corner Quinns Lane				1item	x	$20,520.00	=	$20,520
						Sub-Total	=	$391,380
Design				3.0%	x	$391,380	=	$11,740
Supervision				3.0%	x	$391,380	=	$11,740
Administration and On-costs				15.5%	x	$391,380	=	$60,670
						Estimated Project Cost	=	$475,530

Appendix E - 01 ROAD 0103 Service Road Western side of Highway, South Nowra

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0103	ESTIMATED LINEAL METRES				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per Lineal Metre
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	291	28	173	492	N / A	N / A	$322,300	$655.08
Assumed Through Traffic					N / A	N / A	N / A	
	59.15%	5.69%	35.16%	100.00%	N / A	N / A	N / A	

01 ROAD 0103 Estimated Cost								
Stage 1: Southern Section	Length		Width	Quantity		Rate		Total
Seal Gravel Pavement	85.0m	x	9.5	808m^2	x	$34	=	$27,700
Seal and Construct	65.0m	x	9.5	618m^2	x	$34	=	$21,180
Seal and Construct	113.0m	x	9.5	1,074m^2	x	$34	=	$36,820
Temp Return to Gravel Road	25m	x	10	250m^2	x	$34	=	$8,575
Kerb + Gutter	178m	x				$117	=	$20,760
Edge Strip	178m	x				$96	=	$17,100
Stage 1: Northern Section								
Seal and Construct	230.0m	x	9.5	2,185m^2	x	$34	=	$74,950
New Highway Intersection	15m	x	10	150m^2	x	$34	=	$5,145
Tree Removal				1item	x	$4,120	=	$4,120
Kerb + Gutter	230m	x				$117	=	$26,825
Edge Strip	230m	x				$96	=	$22,095

01 ROAD 0103 Estimated Cost ….cont								
						Sub-Total	=	$265,270
Design				3.0%	x	$265,270	=	$7,960
Supervision				3.0%	x	$265,270	=	$7,960
Administration and On-costs				15.5%	x	$265,270	=	$41,110
						Estimated Project Cost	=	$322,300

Appendix E - 01 ROAD 0104 – Quinns / Old Southern Link, South Nowra

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0104	ESTIMATED LINEAL METRES				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per Lineal Metre
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	0	150	4,650	4,800	N / A	N / A	$2,967,000	$618.13
Assumed Through Traffic					N / A	N / A	N / A	
	0.00%	3.13%	96.88%	100.00%	N / A	N / A	N / A	

01 ROAD 0104 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Seal Pavement Service Rd	1,530m	x	13	19,890m^2		$31.52	=	$626,890
Seal Pavement Loop Road	680m	x	9	6,120m^2	x	$31.52	=	$192,890
Seal Pavement Access Rd	190m	x	9	1,710m^2	x	$31.52	=	$53,895
Seal Pavement Old Sthn Rd	300m	x	13	3,900m^2	x	$25.21	=	$98,335
K and G Service Road	3,060m	x				$107.16	=	$327,910
K and G Loop Road	1,360m	x				$107.16	=	$145,740
K and G Access Rd	380m	x				$107.16	=	$40,720
K and G Old Sthn Rd	600m	x				$107.17	=	$64,300
						Sub-Total	=	$1,550,680
Design				3.0%	x	$1,550,680	=	$46,520

Appendix E - 01 ROAD 0104 - Quinns / Old Southern Link, South Nowra… cont

Supervision				3.0%	x	$1,550,680	=	$46,520
Administration and On-costs				15.5%	x	$1,550,680	=	$240,355
Land Acquisition Access Rd	178m	x	20	3,560m^2	x	$21.43	=	$76,300
Land Acquisition Service Road	1,530	x	20	30,600m^2	x	$21.43	=	$655,825
Land Acquisition Loop Road	680m	x	15	10,200m^2	x	$21.43	=	$218,610
Share of Drainage Costs	3.16	divided by	25.85	12.22%	x	$1,081,370	=	$132,190
						Estimated Project Cost	=	$2,967,000

Appendix E - 01 ROAD 0105 - Quinns /Old Southern Link Drainage, South Nowra

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0105	ESTIMATED SQUARE METRES				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per Square Metre
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	0	10,470	248,030	258,500	N / A	N / A	$987,470	$3.82
Assumed Through Traffic					N / A	N / A	N / A	
	0.00%	4.05%	95.95%	100.00%	N / A	N / A	N / A	

01 ROAD 0105 Estimated Cost								
	Diameter		Class	Quantity		Rate		Total
Drainage Pipe	375	dia. RR	Class X	304m	x	$79.28	=	$24,100
Drainage Pipe	375	dia. RR	Class Y	87m	x	$96.44	=	$8,390
Drainage Pipe	450	dia. RR	Class X	806m	x	$112.31	=	$90,520
Drainage Pipe	600	dia. RR	Class X	164m	x	$174.39	=	$28,600
Drainage Pipe	600	dia. RR	Class Y	62m	x	$208.79	=	$12,945
Drainage Pipe	750	dia. RR	Class X	440m	x	$269.55	=	$118,600
Drainage Pipe	750	dia. RR	Class Y	20m	x	$346.25	=	$6,925
Drainage Pipe	900	dia. RR	Class X	636m	x	$420.17	=	$267,230
Drainage Pipe	900	dia. RR	Class Y	22m	x	$537.73	=	$11,830
Drainage Pipe	1,050	dia. RR	Class X	180m	x	$547.03	=	$98,465
Drainage Pipe	1,050	dia. RR	Class Y	22m	x	$704.32	=	$15,495
Drainage Pipe	1,200	dia. RR	Class X	60m	x	$685.83	=	$41,150
Drainage Pipe	1,200	dia. RR	Class Y	20m	x	$882.50	=	$17,650

01 ROAD 0105 Estimated Cost cont

Pits				38item	x	$1,981.97	=	$75,315
Headwalls				4item	x	$1,982.50	=	$7,930
Sand Backfill Supply and Place				2,865m^3	x	$22.47	=	$64,355
Sedimentation Control Pond				1item	x	$33,030.00	=	$33,030
Legal Costs Easements				4item	x	$1,057.50	=	$4,230
						Sub-Total	=	$926,760
Design				3.0%	x	$926,760	=	$27,800
Supervision				3.0%	x	$926,760	=	$27,800
Administration and On-costs				15.5%	x	$926,760	=	$143,650
						Sub-Total	=	$1,126,010
						Less Road Drainage	=	-$138,540
						Estimated Project Cost	=	$987,470

Appendix E - 01 ROAD 0106 - Bomaderry Bypass

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0106	ESTIMATED SQUARE METRES				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per Square Metre
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	275,868	6,466	540,966	823,300	N / A	100.00%	$15,460,000	$18.78
Assumed Through Traffic				0	N / A	0.00%	$0	
	33.51%	0.79%	65.71%	100.00%	N / A	N / A	$15,460,000	

01 ROAD 0106 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Fill (Supply, Place, Compact)								
Assume 500m3/day = 27,050/500 = 54 days								
Dozer				54days	x	$2,531	=	$136,650
Traxcavator				54days	x	$2,214	=	$119,540
Trucks (Assume 10km & 6m3/truck)								
Trucks Number of Trips				27,050m^3	x	$19	=	$523,930
Supervision				54days	x	$593	=	$32,010
Material				27,050 m^3	x	$32	=	$855,420
Place and Compact 350m3/day = 27,050/350 = 78 days								
Grader				78days	x	$1,976	=	$154,160
Roller				78days	x	$1,383	=	$107,910
Water Cart				78days	x	$1,383	=	$107,910
Fill (Supply, Place, Compact)								
Construct Road	2,480m	x	11	27,280 m^2	x	$94	=	$2,568,590

Appendix E - 01 ROAD 0106 - Bomaderry Bypass cont

Drainage	1,225m	x	20	24,500 m^2	x	$56	=	$1,384,090
Bridge over Railway	45m	x	13	585 m^2	x	$4,143	=	$2,423,590
Environmental Study and Protection				1item	x	$376,638	=	$376,640
						Sub-Total	=	$8,790,440
Design				3.0%	x	$8,790,440	=	$263,715
Supervision				3.0%	x	$8,790,440	=	$263,715
Administration and On-costs				15.5%	x	$8,790,440	=	$1,362,520
						Sub-Total	=	$10,680,390
Bolong Road Link								
Land Acquisition (building)				1item	x	$753,246	=	$753,250
Demolition and Removal of Building				1item	x	$18,837	=	$18,840
Construct Road	700m	x	11	7,700 m^2	x	$94	=	$725,000
Land Acquisition (road)	700m	x	20	14,000 m^2	x	$56	=	$790,920
Fill (Supply, Place, Compact)				7,350 m^3	x	$75	=	$553,630
Culverts				3item	x	$301,295	=	$903,880
Environmental Study and Protection				1item	x	$188,312	=	$188,310
						Sub-Total	=	$3,933,830
Design				3.0%	x	$3,933,830	=	$118,020
Supervision				3.0%	x	$3,933,830	=	$118,020
Administration and On-costs				15.5%	x	$3,933,830	=	$609,740
						Sub-Total	=	$4,779,610
						Estimated Project Cost	=	$15,460,000

Appendix E - 01 ROAD 0120 - Judith Drive/Page Avenue and Roundabout, North Nowra – Recoupment Project
Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0120 RECOUPMENT PROJECT	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	0	69	48	117	1,053	68.20%	$222,607	$1,902.62
2	0	24	0	24	216	21.67%	$70,715	$2,946.48
3	0	29	0	29	261	10.14%	$33,088	$1,140.96
Assumed Through Traffic				0	0	0.00%	$0	
	0.00%	58.97%	41.03%	100.00%	1,530	100.00%	$326,410	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0120 Recoupment Project Cost								
	Length		Width	Quantity		Rate		Total
Road	133m	x	13	1,729m^2	X	$43.97	=	$76,020
Road	125m	x	9	1,125 m^2	x	$43.97	=	$49,460
Kerb + Gutter				51m	X	$124.65	=	$6,360
Median [K & G both sides 1.2 min. fill]				160m	x	$124.65	=	$19,940
at both 90 degree bends				96 m^2	x	$73.28	=	$7,040
Road Drainage	600		Class Y	170m	x	$197.88	=	$33,640
Pits				2	x	$1,450.00	=	$2,900
						Sub-Total	=	$195,360
Design				3.0%	x	$195,360	=	$5,860
Supervision				3.0%	x	$195,360	=	$5,860

01 ROAD 0120 Recoupment Project Cost …cont								
Administration and On-costs				15.5%	X	$195,360	=	$5,860
						Road Cost	=	$237,360
Roundabout to accommodate buses								
	hotmix overlay			1item	X	$73,290	=	$73,290
Design				3.0%	x	$73,290	=	$2,200
Supervision				3.0%	x	$73,290	=	$2,200
Administration and On-costs				15.5%	x	$73,290	=	$11,360
						Roundabout Cost	=	$89,050
						Project Cost	=	$326,410

Appendix E - 01 ROAD 0124 – Moss Street and Brereton Street Roundabout, Nowra
Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0124	ESTIMATED DEVELOPMENT (Units and Beds)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per Unit per Bed
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Benefit Area Cost	
30 x 2 bed Self Care Units	0	12	18	30	189	14.12%	$21,173	$705.75per unit
80 Bed Hostel Complex	0	0	80	80	151	11.28%	$16,916	$211.45per bed
Assumed Through Traffic					999	74.61%	$111,912	
					1,339	100.00%	$150,000	

01 ROAD 0124 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Roadworks				1item	x	$49,390.00	=	$49,390
Road Realignment				1item	x	$24,690.00	=	$24,690
Relocation of Services				1item	x	$24,690.00	=	$24,690
Roundabout Construction				1item	x	$24,690.00	=	$24,690
						Sub-Total	=	$123,460
Design				3.0%	x	$123,460	=	$3,705
Supervision				3.0%	x	$123,460	=	$3,705
Administration and On-costs				15.5%	x	$123,460	=	$19,130
						Estimated Project Cost	=	$150,000

Appendix E - 01 ROAD 0126 – Nowra CBD and Traffic Facilities, Nowra

Contributions Apportionment Table

BENEFIT AREA 1 Coles Only			Without Development		With Development		2006 Traffic Increase		Contribution Lump Sum
Intersection	Link Used	Total Cost	1997	2006	1997	2006	Volume	Proportion	
A: Hwy/Bridge	Bridge Rd	$414,650	17,253	17,253	17,512	17,512	259	0.0148	$6,133
B: Bridge/North/Berry	North St (east)	$221,150	5,386	8,618	5,792	9,024	406	0.0450	$9,950
C: Hwy/Moss/North	west of Hwy	$1,174,840	5,986	9,578	6,686	10,278	700	0.0681	$80,014
D: O'Keefe/North	to Hwy	$221,150	5,986	9,578	6,686	10,278	700	0.0681	$15,062
								Total Coles Contribution =	$111,159

BENEFIT AREA 2 Woolworths Only			Without Development		With Development		2006 Traffic Increase		Contribution Lump Sum
Intersection	Link Used	Total Cost	1997	2006	1997	2006	Volume	Proportion	
A: Hwy/Bridge	Bridge Rd	$414,650	17,253	17,253	17,997	17,997	744	0.0413	$17,142
B: Bridge/North/Berry	North St (east)	$221,150	5,386	8,618	11,183	14,415	5,797	0.4021	$88,936
C: Hwy/Moss/North	west of Hwy	$1,174,840	5,986	9,578	7,370	10,962	1,384	0.1262	$148,329
D: O'Keefe/North	to Hwy	$221,150	5,986	9,578	7,370	10,962	1,384	0.1262	$27,921
								Total Woolworths Contribution =	$282,327

Note 1:Modelled traffic volumes are estimated average weekday daily volumes outside of school holidays.

01 ROAD 0126 Estimated Cost							
Intersection Upgrade	Location		Quantity		Rate		Estimate
Intersection A	Princes Highway and Bridge Road		1item		$414,650	=	$414,650
Intersection B	Bridge Road, North and Berry Streets		1item	x	$221,150	=	$221,150
Intersection C	Princes Hwy, Moss and North Streets		item	x	$1,174,840	=	$1,174,840
Intersection D	O'Keefe Avenue and North Street		1item	x	$221,150	=	$221,150
					Estimated Project Cost	=	$2,031,790

Appendix E - 01 ROAD 0127 – Moss Vale + Carters Roads Intersection, Kangaroo Valley and Barrengary
Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0127	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	29	0	9	38	342	100.00%	$75,820	$1,995.26
Assumed Through Traffic					0	0.00%	$0	
					342	100.00%	$75,820	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0127 Estimated Cost								
Upgrade Intersection	Length		Width	Quantity		Rate		Total
Land Acquisition - fencing				1item	x	$3,470	=	$3,470
Road Realignment				120m	x	$156	=	$18,750
Widen Moss Vale Road				300m^2	x	$29	=	$8,680
Signage				8item	x	$174	=	$1,390
Relocate Bus Shelter				1item	x	$580	=	$580
						Sub-Total	=	$32,870
Design				3.0%	x	$32,870	=	$985
Supervision				3.0%	x	$32,870	=	$985
Administration and On-costs				15.5%	x	$32,870	=	$5,095
Land Acquisition - survey/legal				1item	x	$6,945	=	$6,945
Land Acquisition - compensation				1item	x	$28,940	=	$28,940
						Estimated Project Cost	=	$75,820

Appendix E - 01 ROAD 0128 – Riversdale Road, Tapitallee

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0128	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	3	2	9	14	126	100.00%	$202,310	$18,391.82
Assumed Through Traffic					0	0.00%	$0	
					126	100.00%	$202,310	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0128 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	805m	x	5	4,025 m^2		$36.82	=	$148,200
Illaroo Road and Riversdale Road Intersection	124m	x	3.5	434 m^2	x	$37.67	=	$16,350
Lighting				1item	x	$1,960.00	=	$1,960
						Sub-Total	=	$166,510
Design				3.0%	x	$166,510	=	$4,995
Supervision				3.0%	x	$166,510	=	$4,995
Administration and On-costs				15.5%	x	$166,510	=	$25,810
						Estimated Project Cost	=	$202,310

Appendix E - 01 ROAD 0129 – Spotted Gum Drive, Tapitallee

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0129	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	5	4	8	17	153	100.00%	$143,670	$11,972.50
Assumed Through Traffic					0	0.00%	$0	
					153	100.00%	$143,670	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0129 Estimated Cost								
Spotted Gum Drive	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	650m	x	5	3,250m^2	x	$23.50	=	$76,370
Design				3.0%	x	$76,370	=	$2,290
Supervision				3.0%	x	$76,370	=	$2,290
Administration and On-costs				15.5%	x	$76,370	=	$11,840
						Total	=	$92,790
Illaroo Road and Spotted Gum Drive Intersection								
	124m	x	3.5	434m^2	x	$33.31	=	$14,455
	Excavator			2days	x	$7,612.50	=	$15,225
	Truck			2days	x	$817.50	=	$1,635
	Traffic Control			2days	x	$285	=	$570

01 ROAD 0129 Estimated Cost …cont								
New Culvert	45	dia.		15item	x	$95	=	$1,425
Head Wall				1item	x	$950	=	$950
Pavement and Seal				100m^2	x	$23.80	=	$2,380
Guide Posts				25item	x	$19.20	=	$480
Lighting				1item	x	$4,760	=	$4,760
						Sub-Total	=	$41,880
Design				3.0%	x	$41,880	=	$1,255
Supervision				3.0%	x	$41,880	=	$1,255
Administration and On-costs				15.5%	x	$41,880	=	$6,490
						Sub-Total	=	$50,880
						Estimated Project Cost	=	$143,670

Appendix E - 01 ROAD 0131– Illaroo Road (Bugong Road to Riversdale Road) Tapitallee

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0131	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	20	4	42	66	594	100.00%	$60,350	$1,311.96
Assumed Through Traffic					0	0.00%	$0	
					594	100.00%	$60,350	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0131 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	250m	x	5	1,250m^2	x	$35.43	=	$44,290
Lighting				1item	x	$5,380	=	$5,380
						Sub-Total	=	$49,670
Design				3.0%	x	$49,670	=	$1,490
Supervision				3.0%	x	$49,670	=	$1,490
Administration and On-costs				15.5%	x	$49,670	=	$7,700
						Estimated Project Cost	=	$60,350

Appendix E - 01 ROAD 0132– Illaroo Road (Browns Mountain Road to Bugong Road), Tapitallee
Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0132	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	115	25	101	241	2,165	100.00%	$534,200	$4,253.18
Assumed Through Traffic					0	0.00%	$0	
					2,165	100.00%	$534,200	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0132 Estimated Cost										
	Length		Width	Quantity			Rate		Total	
Browns Mountain Road to Lot 2 DP791835										
Widen Pavement 5.5m to 7.2m	800m	x	1.7	1,360m^2		x	$37.42	=	$50,885	
Lot 2 DP791835 to Spotted Gum Drive										
Widen Pavement 5.5m to 7.2m			800m	x	1.7	1,360m^2	x	$37.42	=	$50,885
Concrete Dish Gutter						300m	x	$96.20	=	$28,860
Construct Drainage Pit						4item	x	$1,282.50	=	$5,130
Remove Rock						200m^3	x	$106.85	=	$21,370
Centre Line Marking						800m	x	$3.20	=	$2,560
								Sub-Total	=	$108,805

01 ROAD 0132 Estimated Cost cont.								
Spotted Gum Drive to Ironbark Road								
Earthworks / Clearing				1item	x	$5,350.00	=	$5,350
Widen Pavement 5.5m to 7.2m	150m	X	1.7	255m^2	x	$37.42	=	$9,540
Centre Line Marking				150m	X	$3.20	=	$480
						Sub-Total	=	$15,370
Ironbark Road to Lilly Pilly Lane								
Earthworks / Cearing				1item	x	$5,350.00	=	$5,350
Widen Pavement 5.5m to 6.2m	250m	x	0.7	175m^2	x	$37.42	=	$6,550
Centre Line Marking				250m	x	$3.20	=	$800
Bend Adjacent to Lot 2 DP733536				1item	x	$32,070.00	=	$32,070
Reconstruct Pavement	200m	x	6.2	1,240m^2	x	$37.42	=	$46,395
Road Widening				1item	x	$16,035.00	=	$16,035
Lighting				1item	x	$5,345.00	=	$5,345
Pavement from Lot 2 DP733536 to Lilly Plilly Lane Earthworks / Cearing				1item	x	$5,350.00	=	$5,350
Widen Pavement 5.5m to 6.2m	200m	x	0.7	140m^2	x	$37.42	=	$5,240
Guide Posts				4item	x	$21.25	=	$85
Centre Line Marking				200m	x	$3.20	=	$640
Extend Major Culvert at Lilly Plilly Lane				1item	x	$10,690.00	=	$10,690
						Sub-Total	=	$134,550
Lilly Pilly Lane to Bugong Road								
Earthworks / Cearing				1item	x	$5,350.00	=	$5,350
Widen Pavement 5.5m to 6.2m	980m	x	0.7	686m^2	x	$37.42	=	$25,670
Guide Posts				20item	x	$21.25	=	$425
Centre Line Marking				900m	x	$3.20	=	$2,880
Extend 450dia. Culverts	1.2m	X	2	2.4m	x	$108.33	=	$260

01 ROAD 0132 Estimated Cost cont.								
Headwalls				2item	x	$535.00	=	$1,070
Scour Protection (conc. drains)	400m	x	2	800m	x	$96.20	=	$76,960
Widen Pavement 5.5m to 6.2m	400m	x	0.7	280m^2	x	$37.42	=	$10,480
Centre Line Marking				400m	x	$3.20	=	$1,280
Guide Posts				16item	x	$21.25	=	$340
Illaroo / Bugong Road Intersection Lighting				1item	x	$5,345.00	=	$5,345
						Sub-Total	=	$130,060
						Sub-Total	=	$439,670
Design				3.0%	x	$439,670	=	$13,190
Supervision				3.0%	x	$439,670	=	$13,190
Administration and On-costs				15.5%	x	$439,670	=	$68,150
						Estimated Project Cost	=	$534,200

Appendix E - 01 ROAD 0133– Beach (Tannery) Road Strengthen Pavement and Bridge, Berry

BENEFIT AREA 01 ROAD 0133	Depreciation Rate per Kilometre per Heavy Vehicle	X	Road Length Kilometres	divided by	Heavy Vehicle LoadTonnes	=	RATE per Tonne
CLEARY BROTHERS QUARRY	$0.54	x	6.839	divided by	12	=	$0.31

NOTE: The contribution shall be indexed and adjusted annually in accordance with the New South Wales Roads and Traffic Authority Cost Rise Index applicable to each year ending 30th June.

Quarry Contribution Calculation [Road Upgrading Costs per Heavy Vehicle]									
Rehabilitation Costs	=	$284,167	/km for pavement life of 1,000,000 Equivalent Standard Axles (ESA)						
assumed 1 truck	=	1.9	ESA's						
Heavy Vehicle Depreciation Rate	=	$284,167	divided by	1,000,000	x	1.9	=	$0.54	/km
Road Upgrading Cost	=	$0.54	/km/Heavy Vehicle						
Beach + Tannery Roads	=	5.77	km	+	1.069	km	=	6.839	kms
Heavy Vehicle Load	=	12	tonnes						draft S94 CP Amend. No.77 ROAD

Appendix E - 01 ROAD 0137– Boston Road, Worrigee

Contributions Apportionment Table

BENEFIT AREA 01 ROAD 0137	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	6	34	5	45	405	100.00%	$182,790	$4,686.92
Assumed Through Traffic					0	0.00%	$0	
					405	100.00%	$182,790	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0137 Estimated Cost								
	Length		Width	Quantity		Rate		Total
Upgrade and Seal Pavement	1,030m	x	6	6,180m^2	x	$24.34	=	$150,440
Design				3.0%	x	$150,440	=	$4,515
Supervision				3.0%	x	$150,440	=	$4,515
Administration and On-costs				15.5%	x	$150,440	=	$23,320
						Estimated Project Cost	=	$182,790

Appendix E - 01 ROAD 0141– Central Avenue/Princes Highway Roundabout, South Nowra

Contributions Apportionment Table

	Quantity		Rate		Estimate
Central Avenue Roundabout	1item	x	$847,453.50	=	$847,453.50
Central Avenue Drainage	1item	x	$79,716.42	=	$79,716.42
			Sub-Total	=	$927,169.92
			Less RTA Funding	=	-$270,000.00
			Estimated Project Cost	=	$657,169.92

01 ROAD 0141 Benefit Area Development Table								
	Land Use	Vehicle Per Day (VPD)				Roundabout Usage		Total Future Additional VPD
		vehicles		sq.m				
BENEFIT AREA 1	4(a) Industrial	5	per	100m^2	GFA x	25%	=	926
BENEFIT AREA 2	4(a) Bulky Goods	24	per	100m^2	GFA		=	4,028
BENEFIT AREA 3A	4(a) Industrial	5	per	100m^2	GFA		=	6,056
BENEFIT AREA 3	1(c) Rural Res	9	per	E.T. (dwelling)			=	9
BENEFIT AREA 3	1(d) Rural	9	per	E.T. (dwelling)			=	9
							Total =	11,028

Estimated Additional Vehicles Using Roundabout								
	Land Use	RTA Generation Rate veh/100m2 GFA	Levy Basis	Site Coverage		% Veh using roundabout		Estimated Additional Vehicles Using Roundabout (VPD) per 100m2 GFA
BENEFIT AREA 1	4(a) Industrial	5	per 100m2 developed site area X	45%	x	25%	=	0.56
BENEFIT AREA 2	4(a) Bulky Goods	24	per 100m2 developed site area X	45%	x	100%	=	10.8
BENEFIT AREA 3	Residential	9	per E.T. x	1 dwelling	x	100%	=	9
BENEFIT AREA 3A	4(a) Industrial	5	per 100m2 developed site area X	45%	x	100%	=	2.25

Contribution Rates						
	Land Use	Estimated Additional Vehicles Using Roundabout	Levy Basis	Cost per Each Additional Future VDP Trip	CONTRIBUTION	
BENEFIT AREA 1	4(a) Industrial	0.56	per 100m2 developed site area	$59.59	$0.33	per m2 additional future site developed
BENEFIT AREA 2	4(a) Bulky Goods	10.8	per 100m2 developed site area	$59.59	$6.43	per m2 additional future site developed
BENEFIT AREA 3	Residential	9	per E.T.	$59.59	$536.31	per additional dwelling
BENEFIT AREA 3A	4(a) Industrial	2.25	per 100m2 developed site area	$59.59	$1.34	per m2 additional future site developed
NOTE:	E.T. = Equivalent Tenement = dwelling					
	GFA = Gross Floor Area					
	Industrial Developments with a large precentage of office space will use the calculation of $59.59 X 10 VPD per 100m2 for office floor usage, and $59.59 X 5 VPD per 100m2 for the factory area.					

Appendix E - 01 ROAD 0142– Yalwal Road George Evans Lane to Cabbage Tree Lane, Mundamia

Contributions Apportionment Table

NEW PROJECT 01 ROAD 0142	ESTIMATED EQUIVALENT TENEMENTS (lots / dwellings)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per E.T. (lot / dwelling)
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	99	210	76	385	3,465	70.00%	$233,737	$607.11
Assumed Through Traffic	+ Tourist Traffic				1,485	30.00%	$100,173	
					4,950	100.00%	$333,910	

Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0142 Estimated Cost								
Rehabilitate Pavement and Strengthen as required	Length		Width	Quantity		Rate		Total
	1,000m	x	9	9,000m^2	x	$14.59	=	$131,310
Erosion Control				1,000m^2	x	$21.53	=	$21,530
						Sub-Total	=	$152,840
Design				3.0%	x	$131,310	=	$3,940
Supervision				3.0%	x	$131,310	=	$3,940
Administration and On-costs				15.5%	x	$131,310	=	$20,350
						Estimated Project Cost	=	$333,910

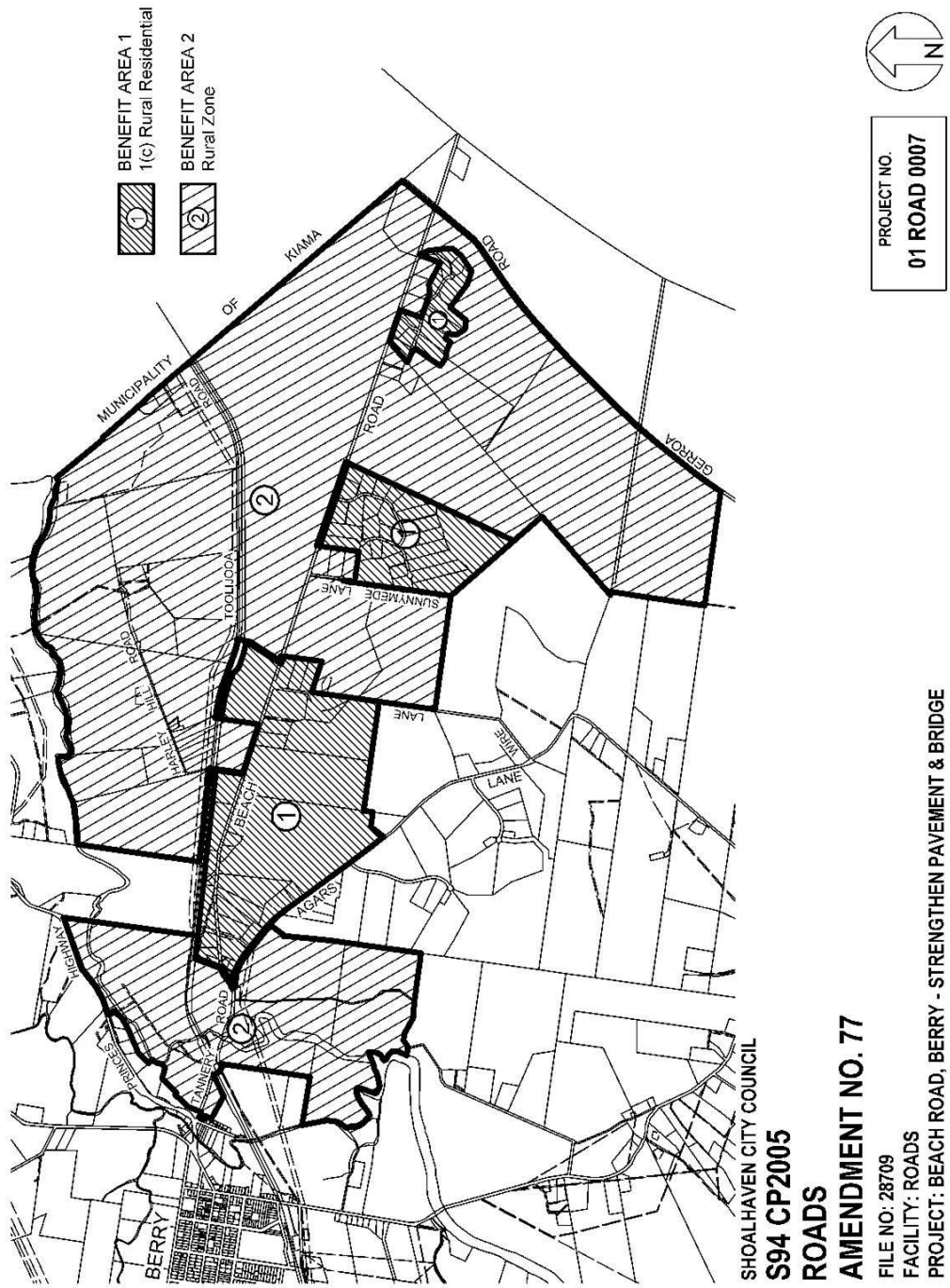
Appendix E - 01 ROAD 0143 – Browns Lane and Quinns Lane Link Road, South Nowra
Contributions Apportionment Table

NEW PROJECT 01 ROAD 0143	ESTIMATED POTENTIAL (square metres)				ESTIMATED APPORTIONMENT			CONTRIBUTION RATE per m2
	Existing	Infill	Potential	Total	Vehicles per Day	% Traffic Generation	Area Cost	
1	0	0	33,453.09	33,453.09	N/A	100.00%	$379,570	$11.35
Assumed Through Traffic					N/A	0.00%	$0	

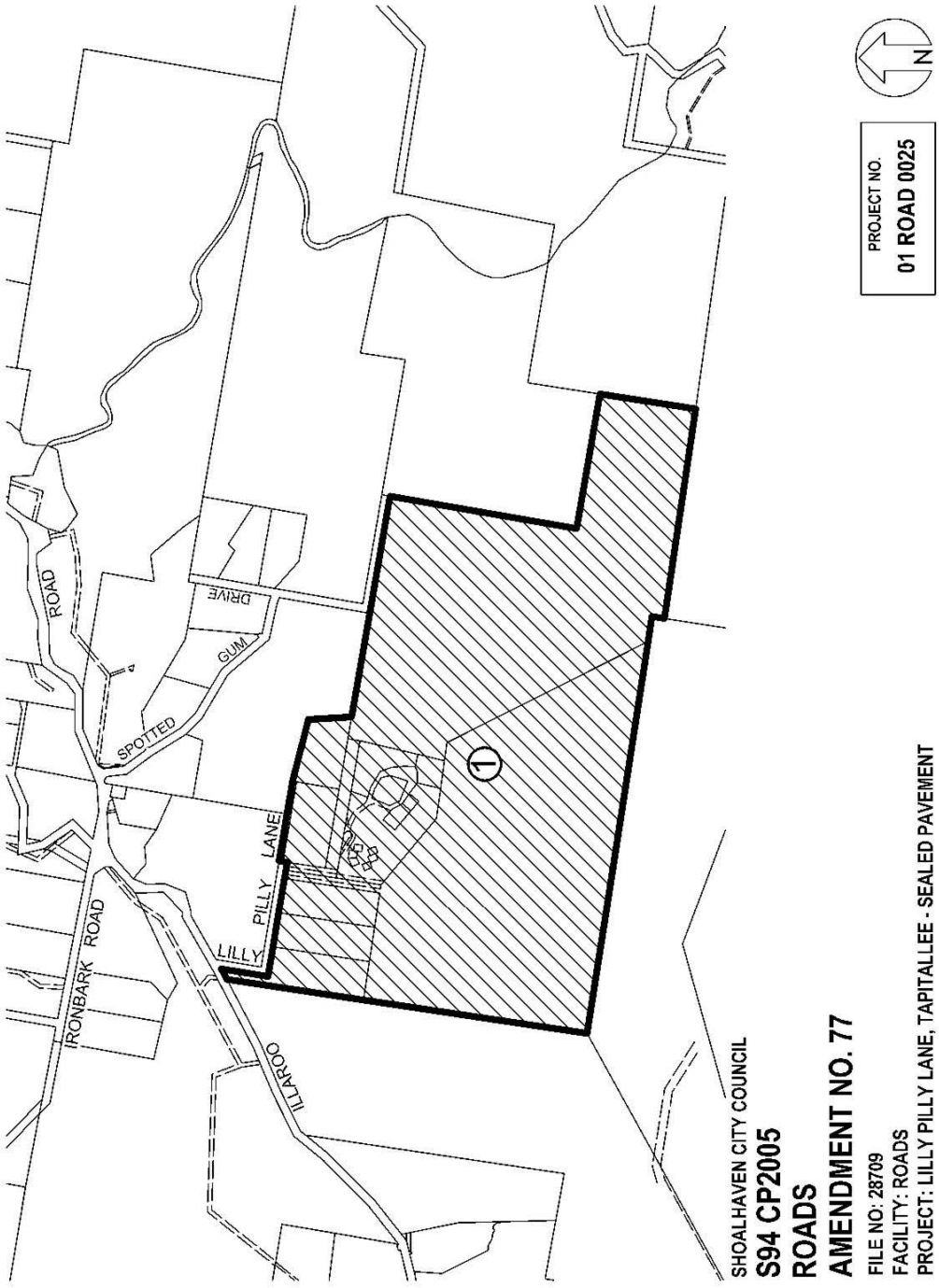
Note: Traffic Authority of NSW Guidelines
9 Vehicles/day per dwelling (i.e. per E.T.)

01 ROAD 0143 Estimated Cost								
Construct Link Road	Length		Width	Quantity		Rate		Total
Seal Pavement	382.5	x	13	4,972.5 m^2	x	$31	=	$154,150
Kerb and Gutter				765	x	$110	=	$84,150
Drainage + Pollution Control				4,972.5	x	$4.10	=	$20,390
						Sub-Total	=	$258,690
Design				6.00%	x	$258,690	=	$15,520
On Costs				15.50%	x	$258,690	=	$40,100
Land Acquisition	Lot 7, D.P.731494		(SCC)	617.4 m^2	x	$0.00	=	$0
Land Acquisition	Lot 26, D.P.734975			609.2 m^2	x	$21.50	=	$13,100
Land Acquisition	Pt Lot 60, D.P.860730			582.2 m^2	x	$21.50	=	$12,520
Land Acquisition	Pt Lot 3, D.P.589013			1,411.0 m^2	x	$21.50	=	$30,340
	Legal / Survey			1item	x	$9,300	=	$9,300
					Estimated Project Cost		=	$379,570

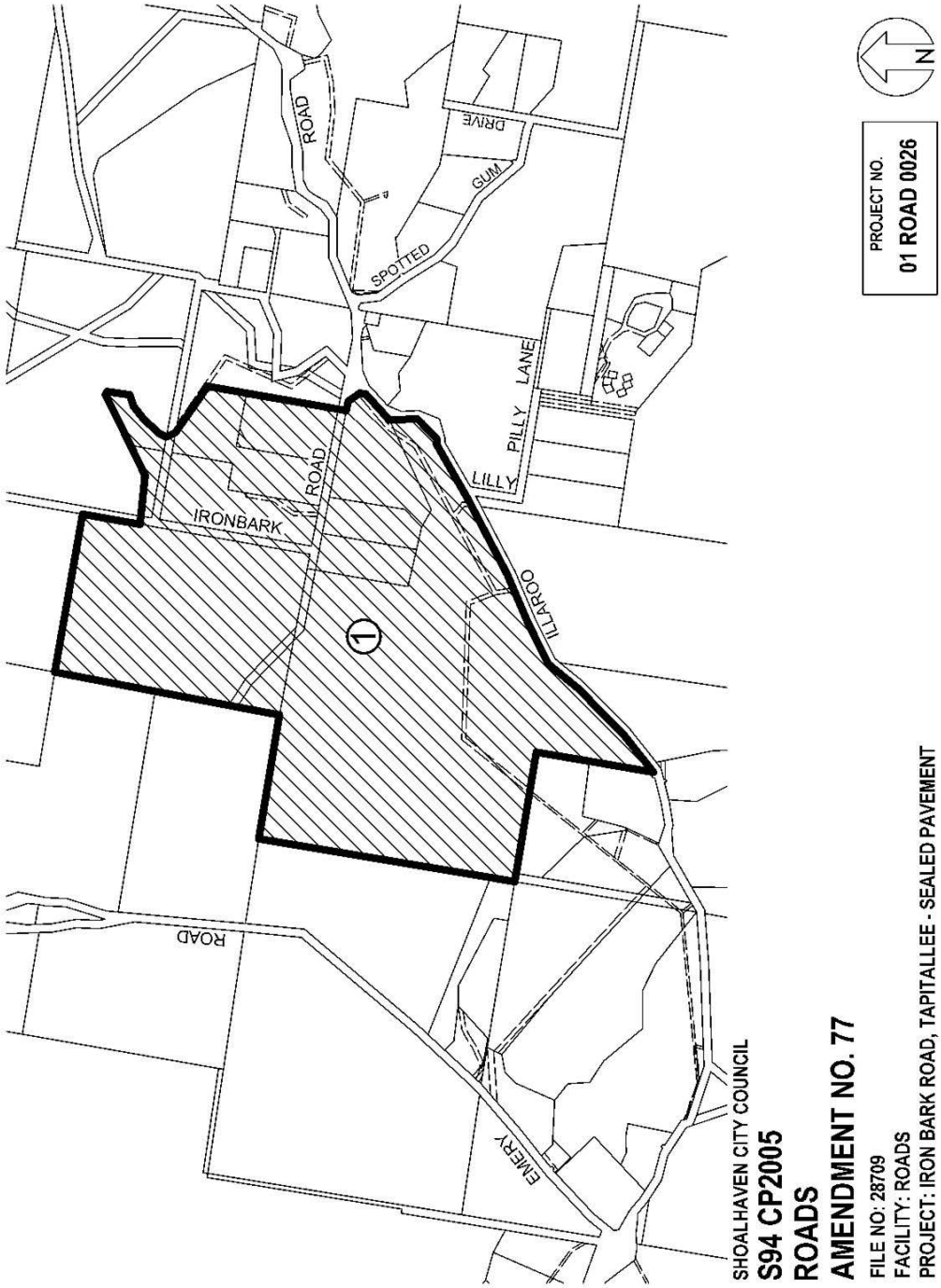
Appendix F - 01 ROAD 0007: Benefit Area Map



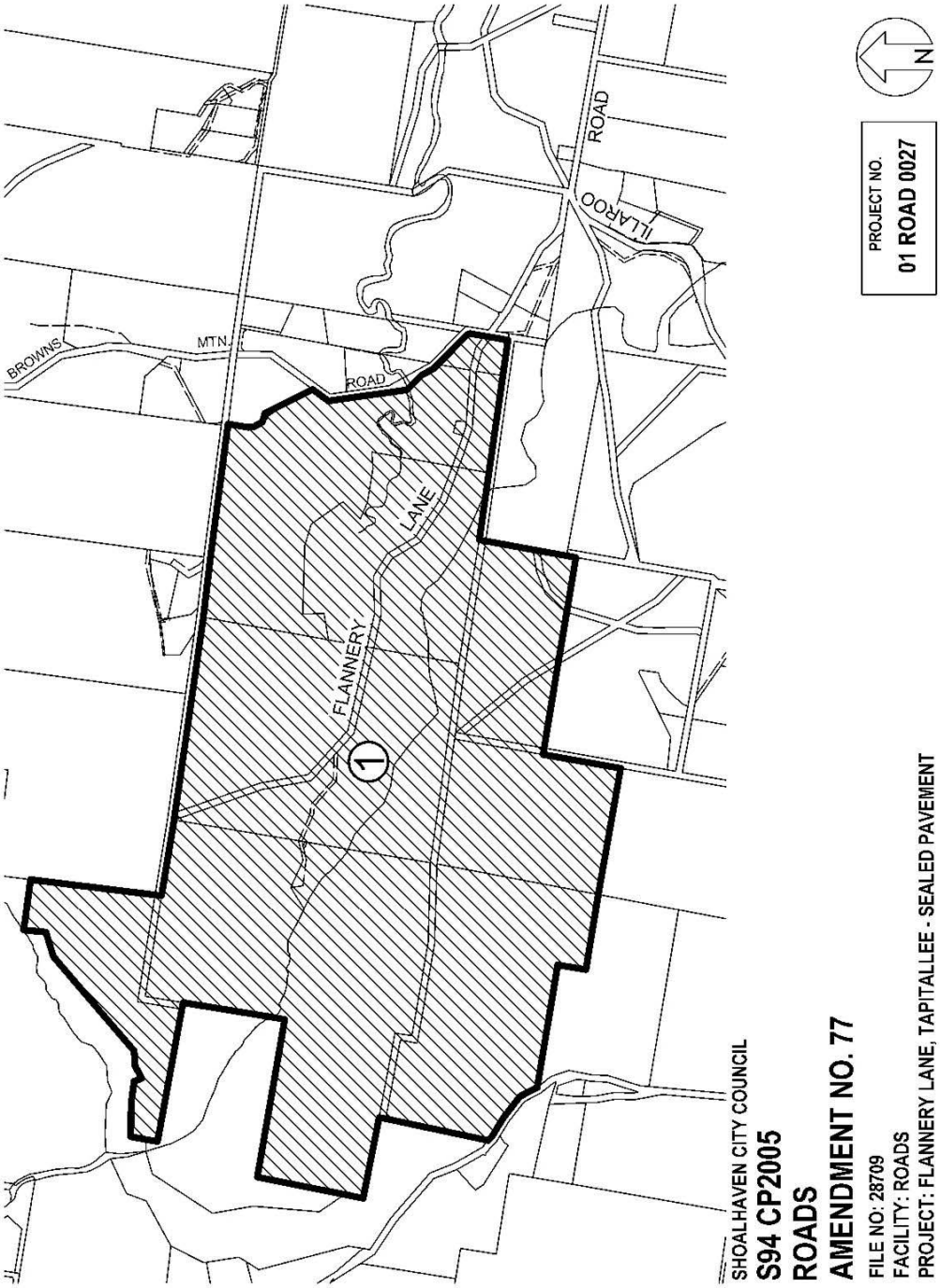
Appendix F - 01 ROAD 0025: Benefit Area Map



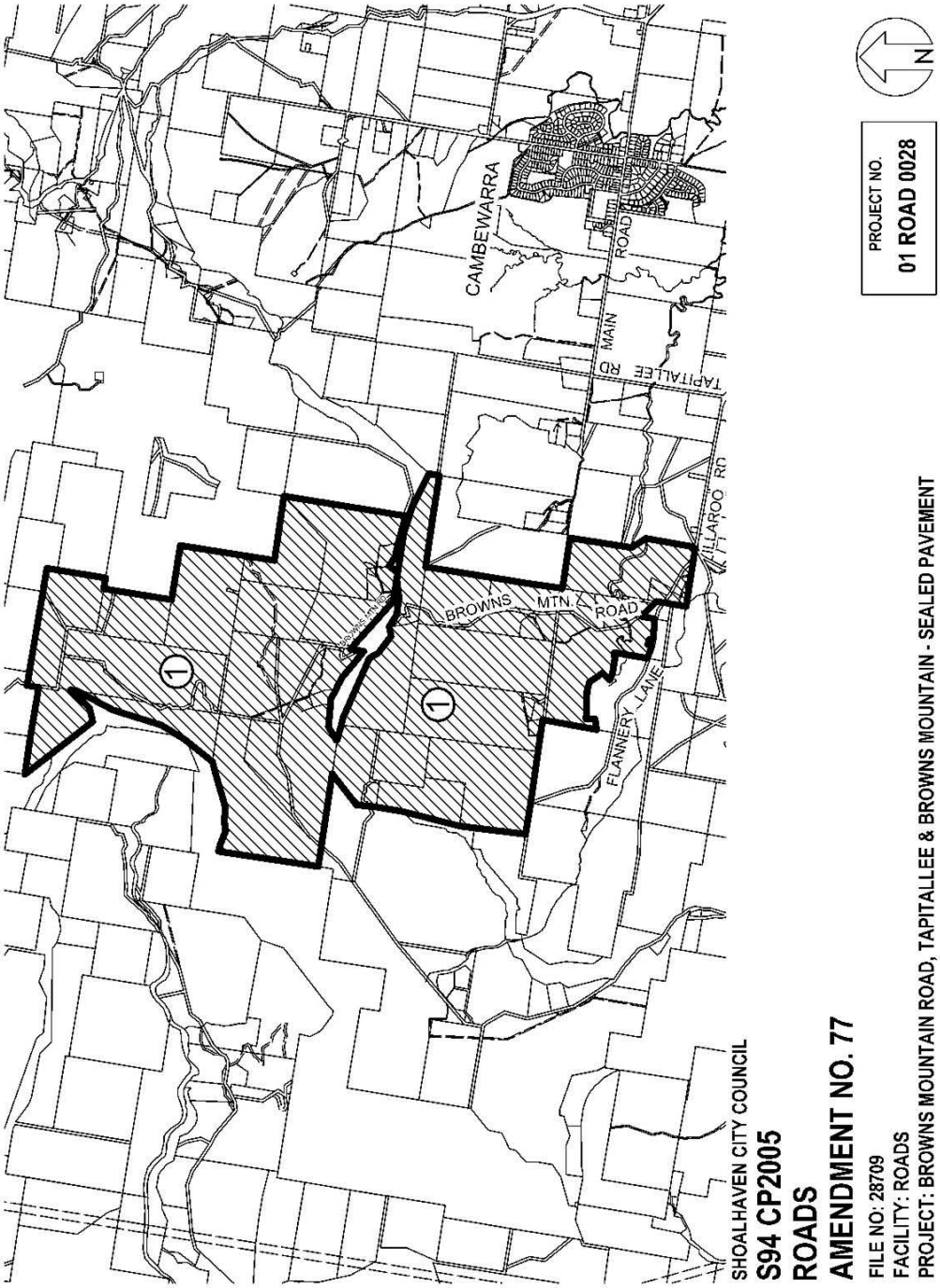
Appendix F - 01 ROAD 0026: Benefit Area Map



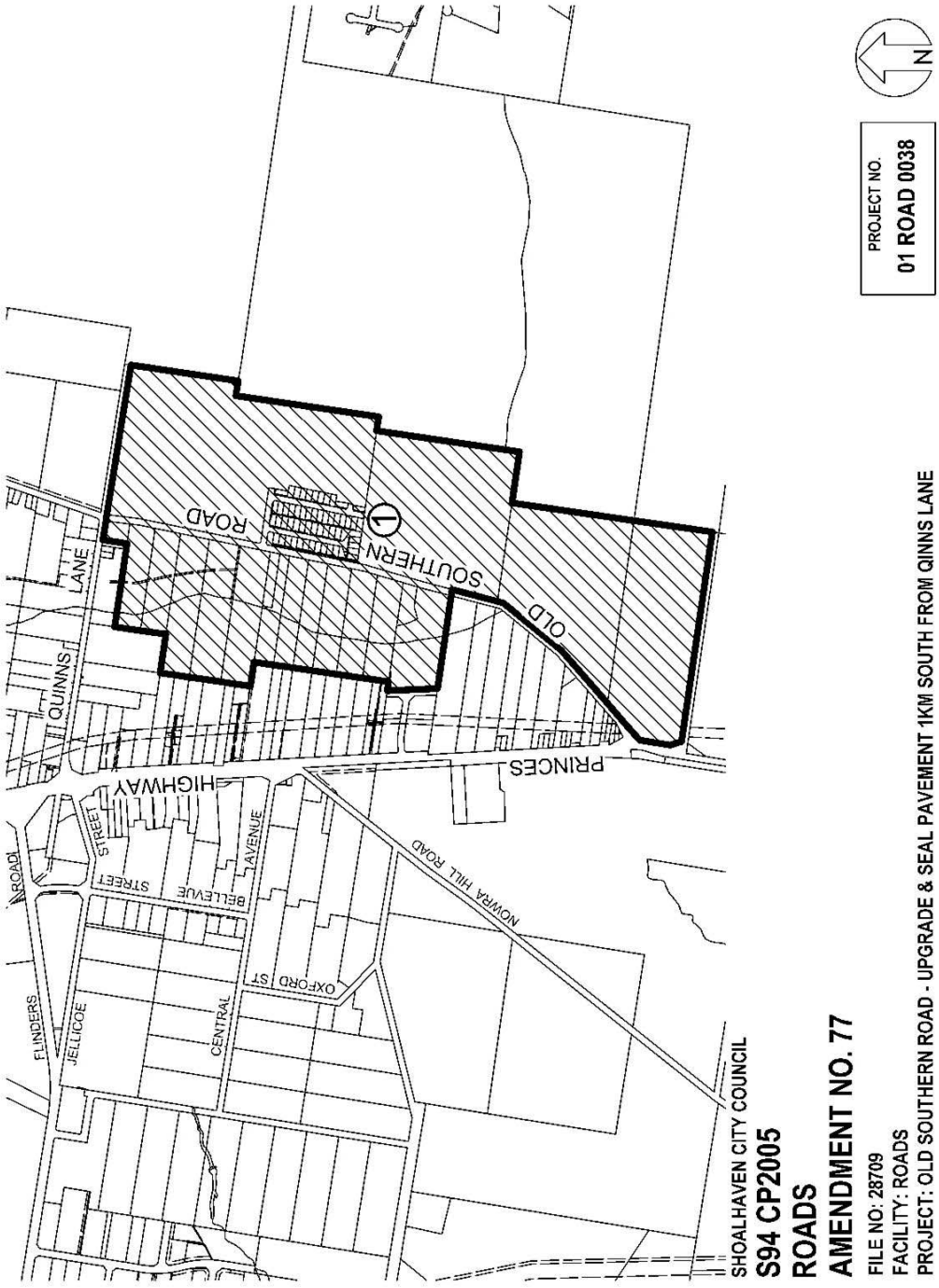
Appendix F - 01 ROAD 0027: Benefit Area Map



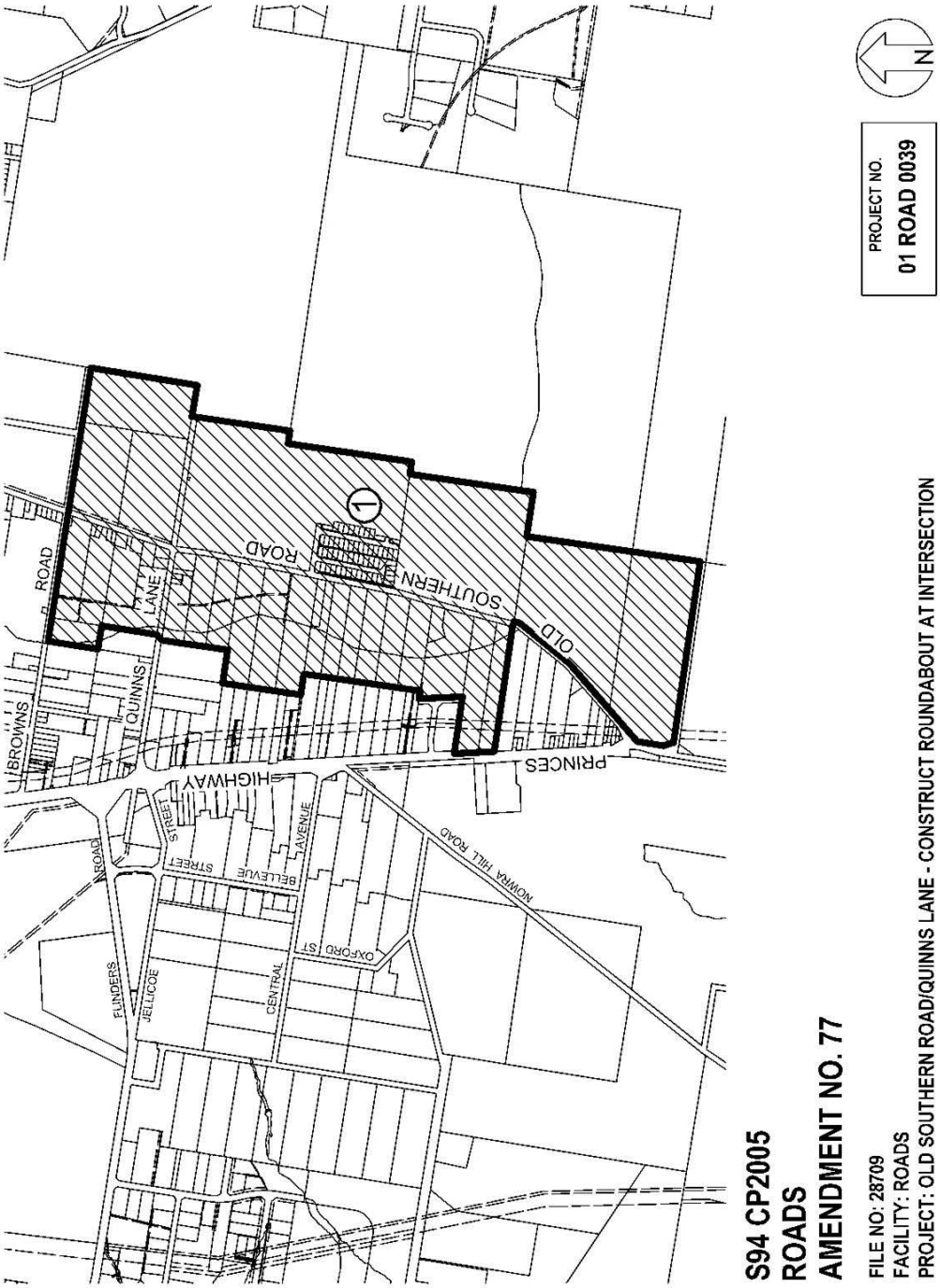
Appendix F - 01 ROAD 0028: Benefit Area Map



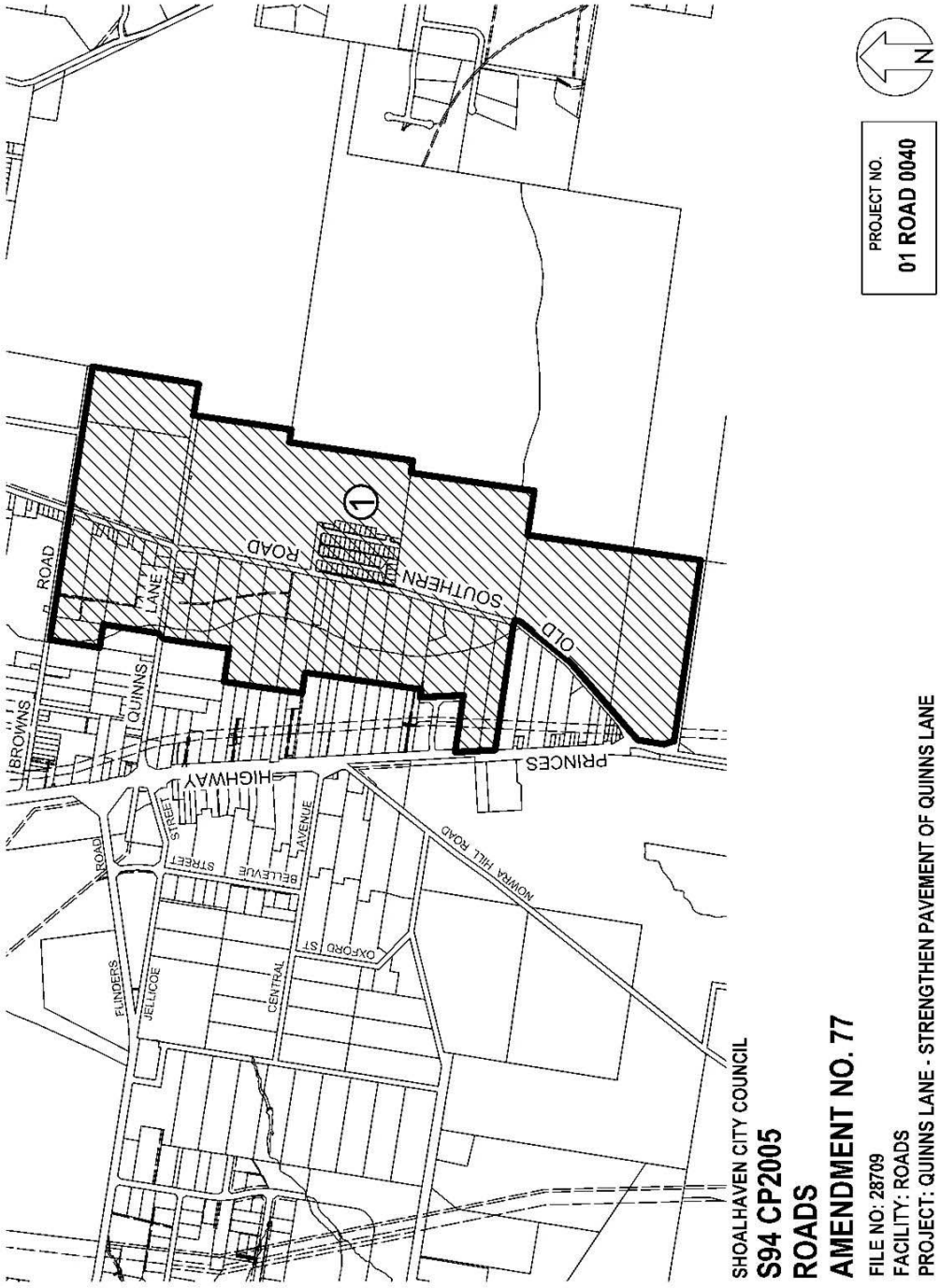
Appendix F - 01 ROAD 0038: Benefit Area Map



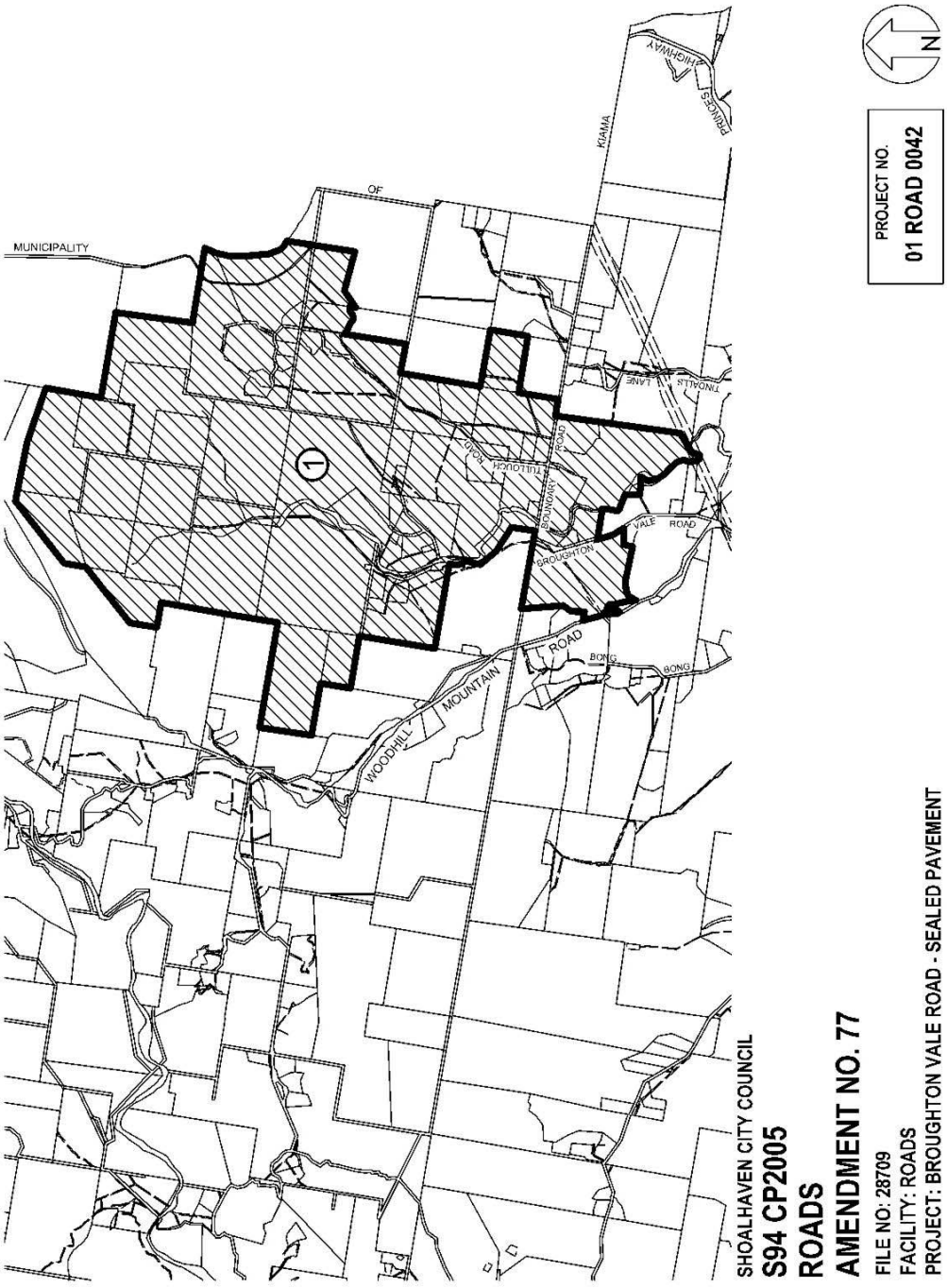
Appendix F - 01 ROAD 0039: Benefit Area Map



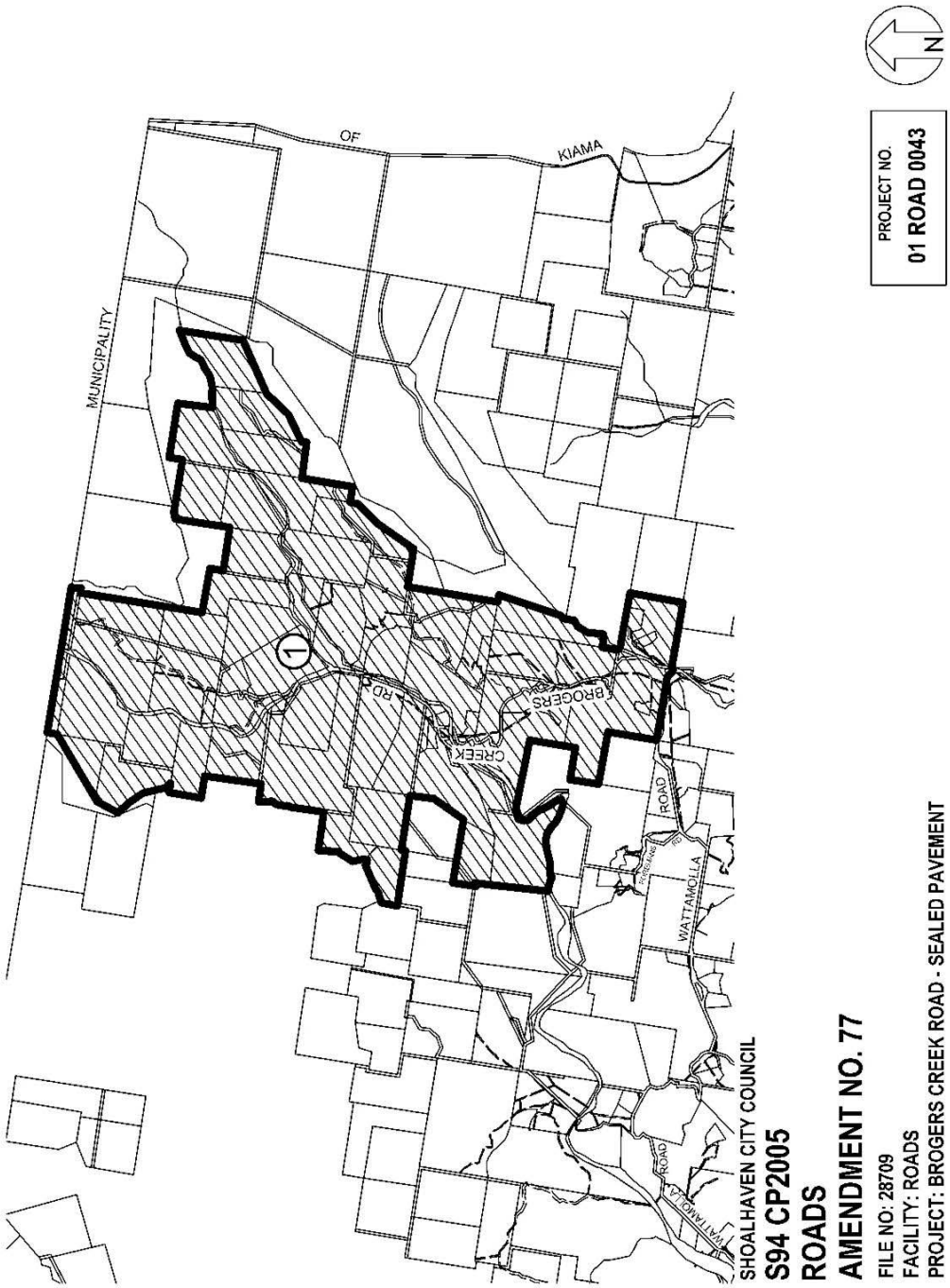
Appendix F - 01 ROAD 0040: Benefit Area Map



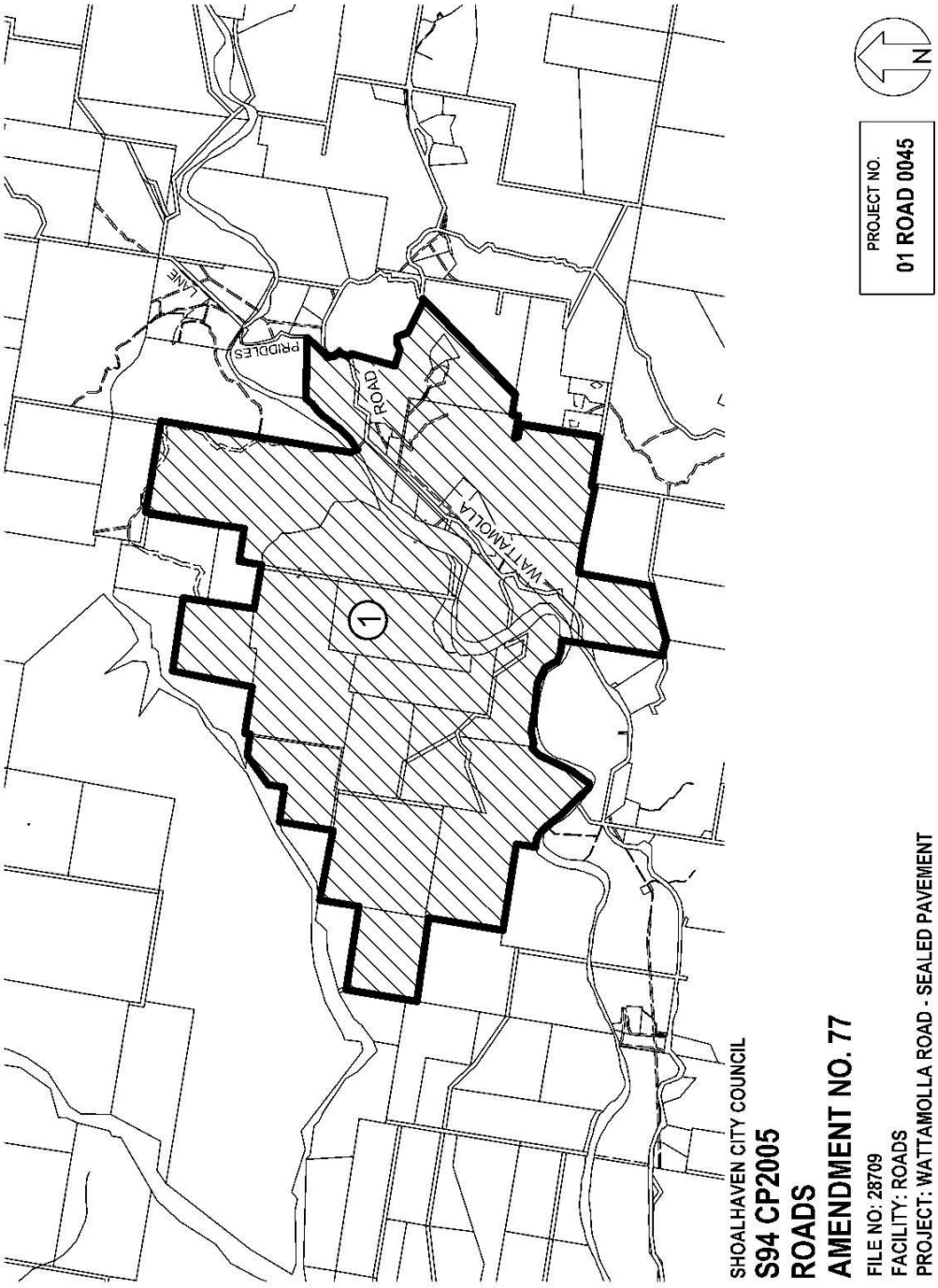
Appendix F - 01 ROAD 0042: Benefit Area Map



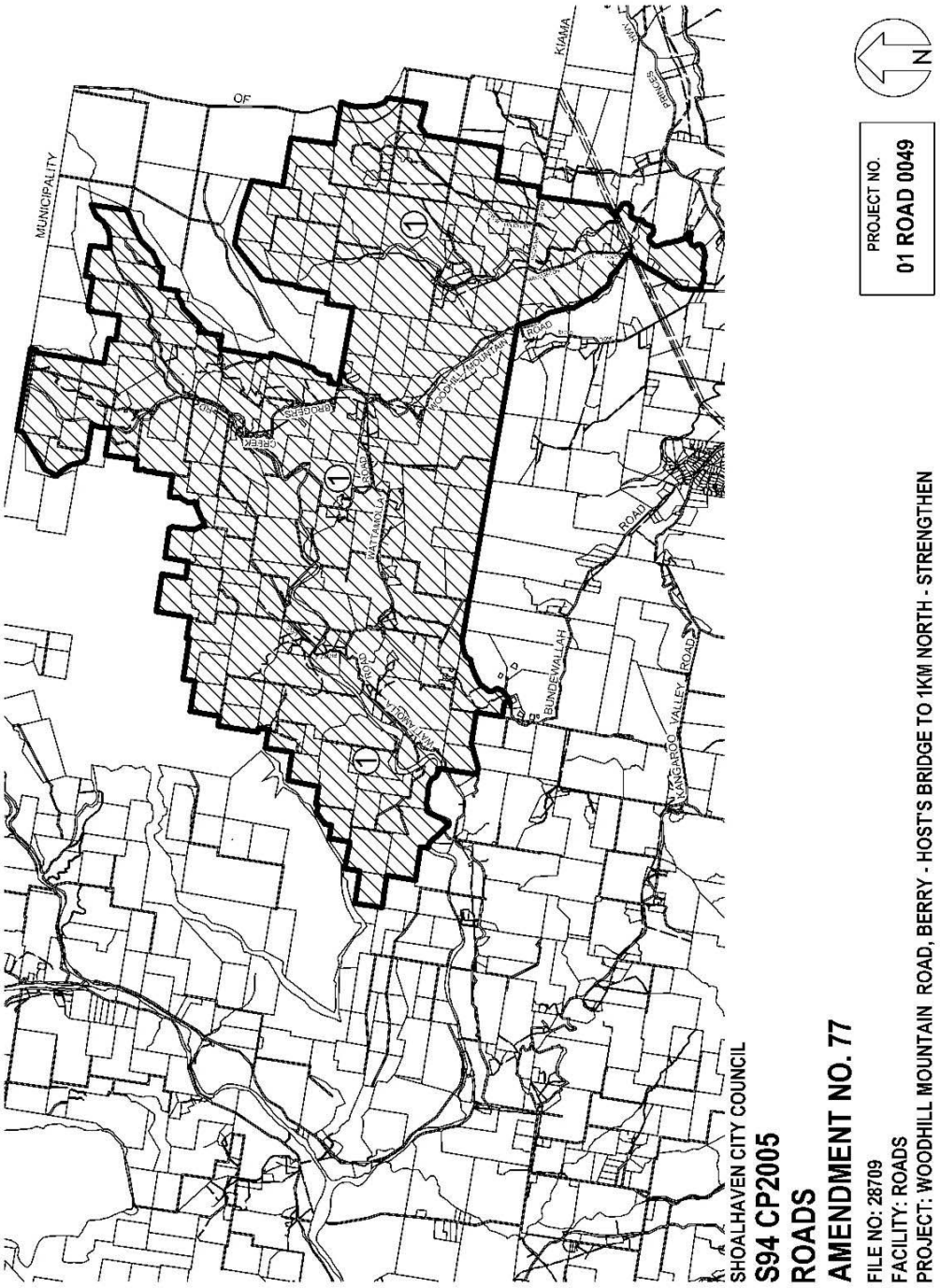
Appendix F - 01 ROAD 0043: Benefit Area Map



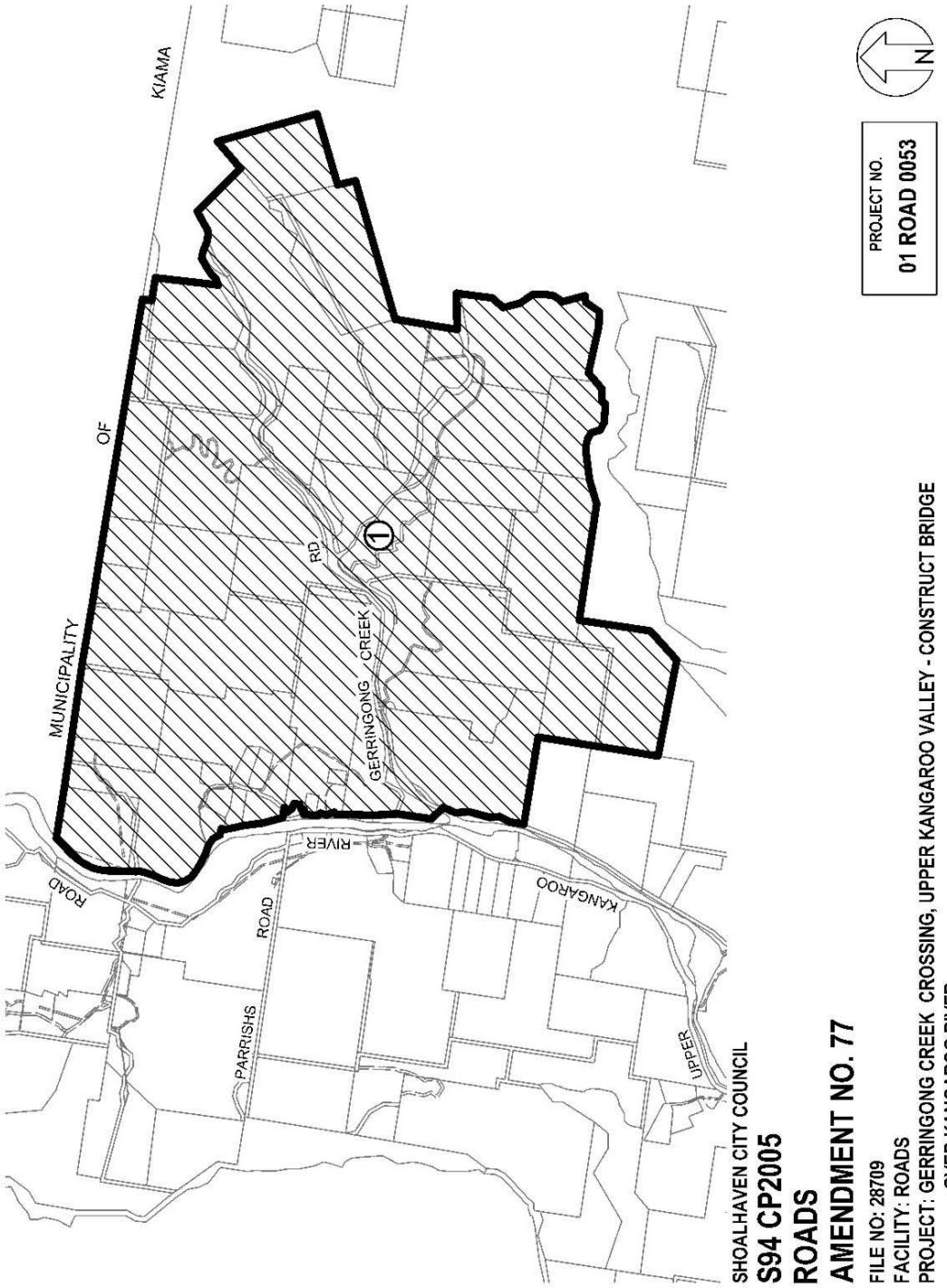
Appendix F - 01 ROAD 0045: Benefit Area Map



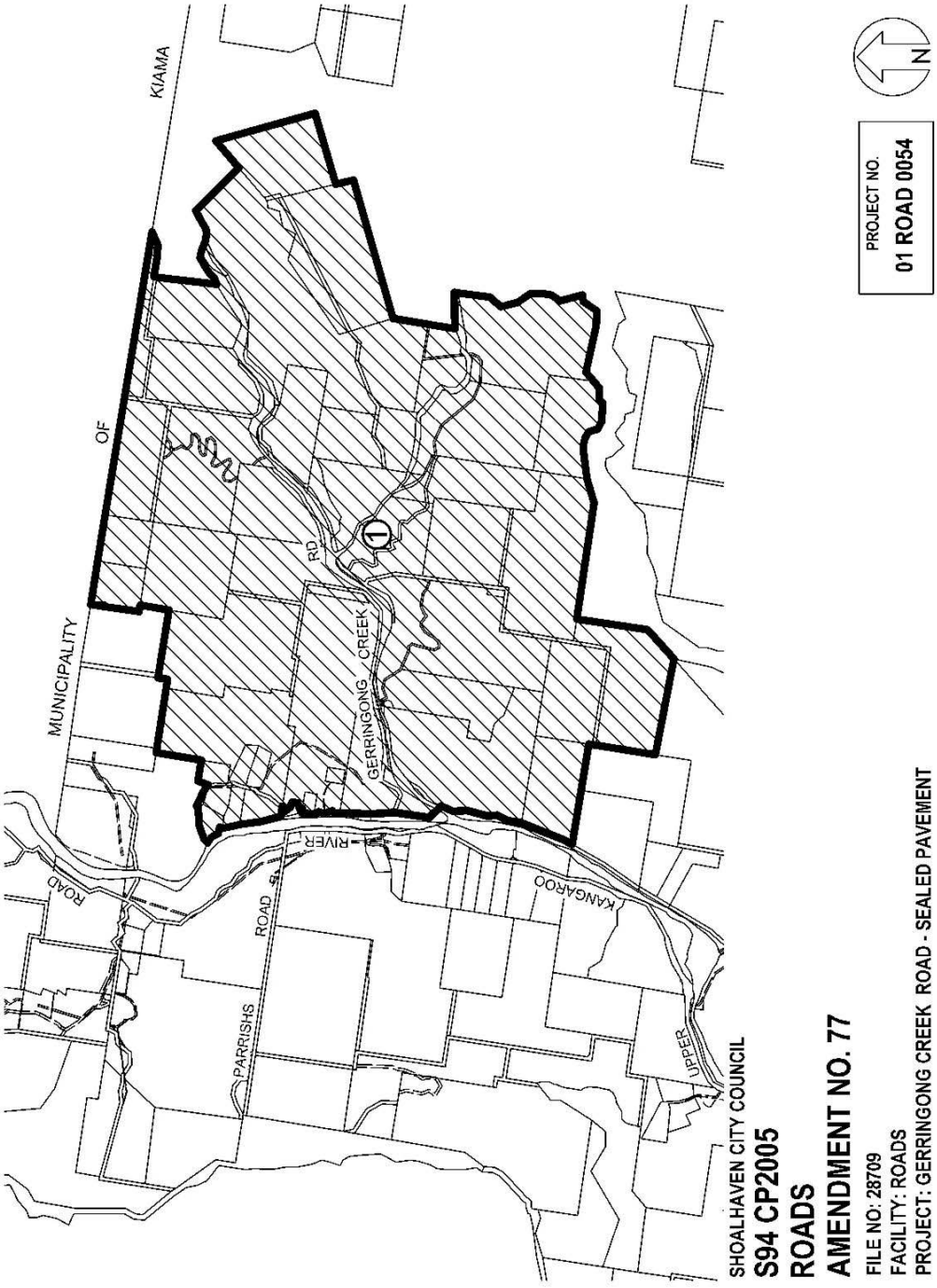
Appendix F - 01 ROAD 0049: Benefit Area Map



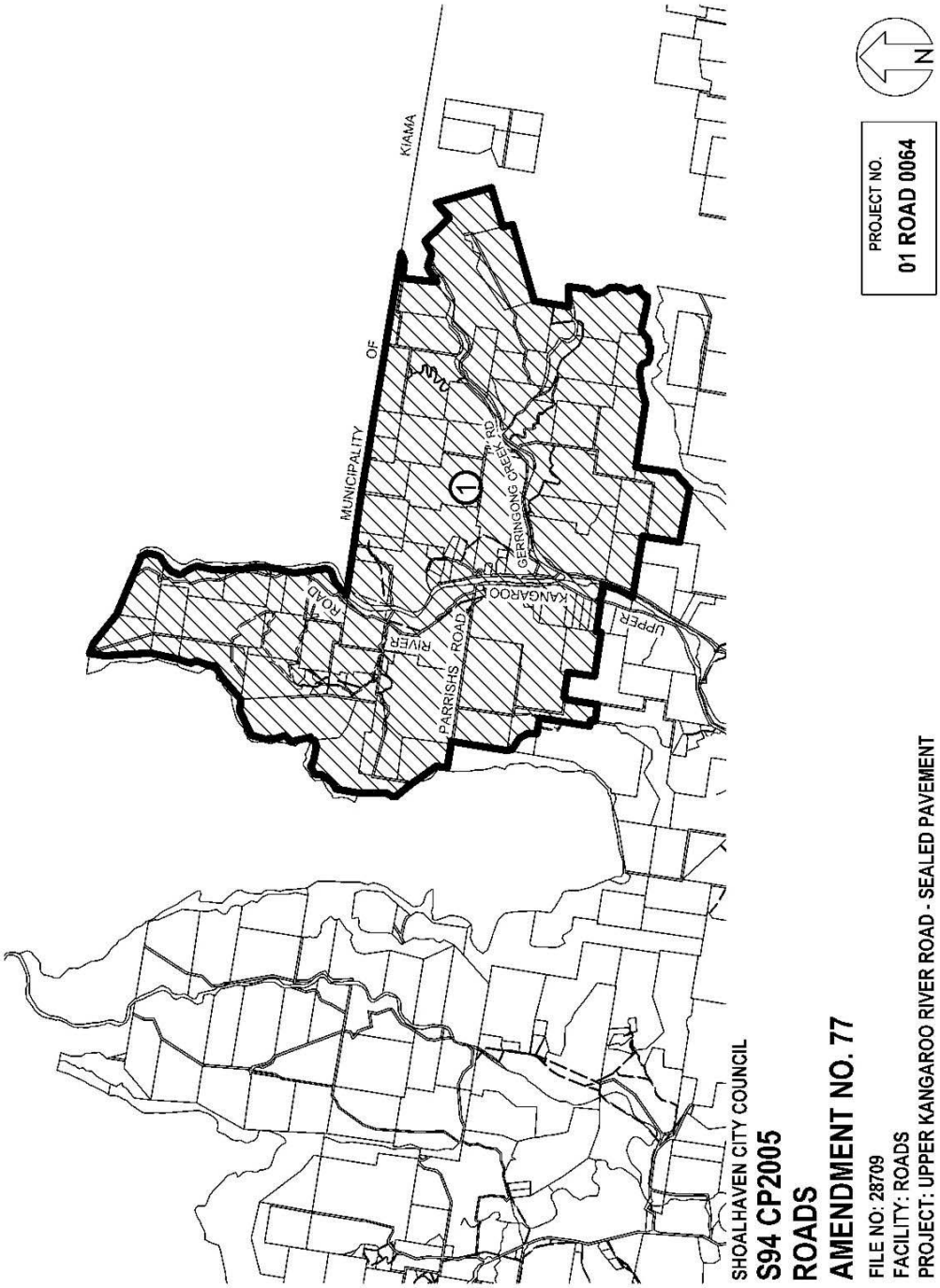
Appendix F - 01 ROAD 0053: Benefit Area Map



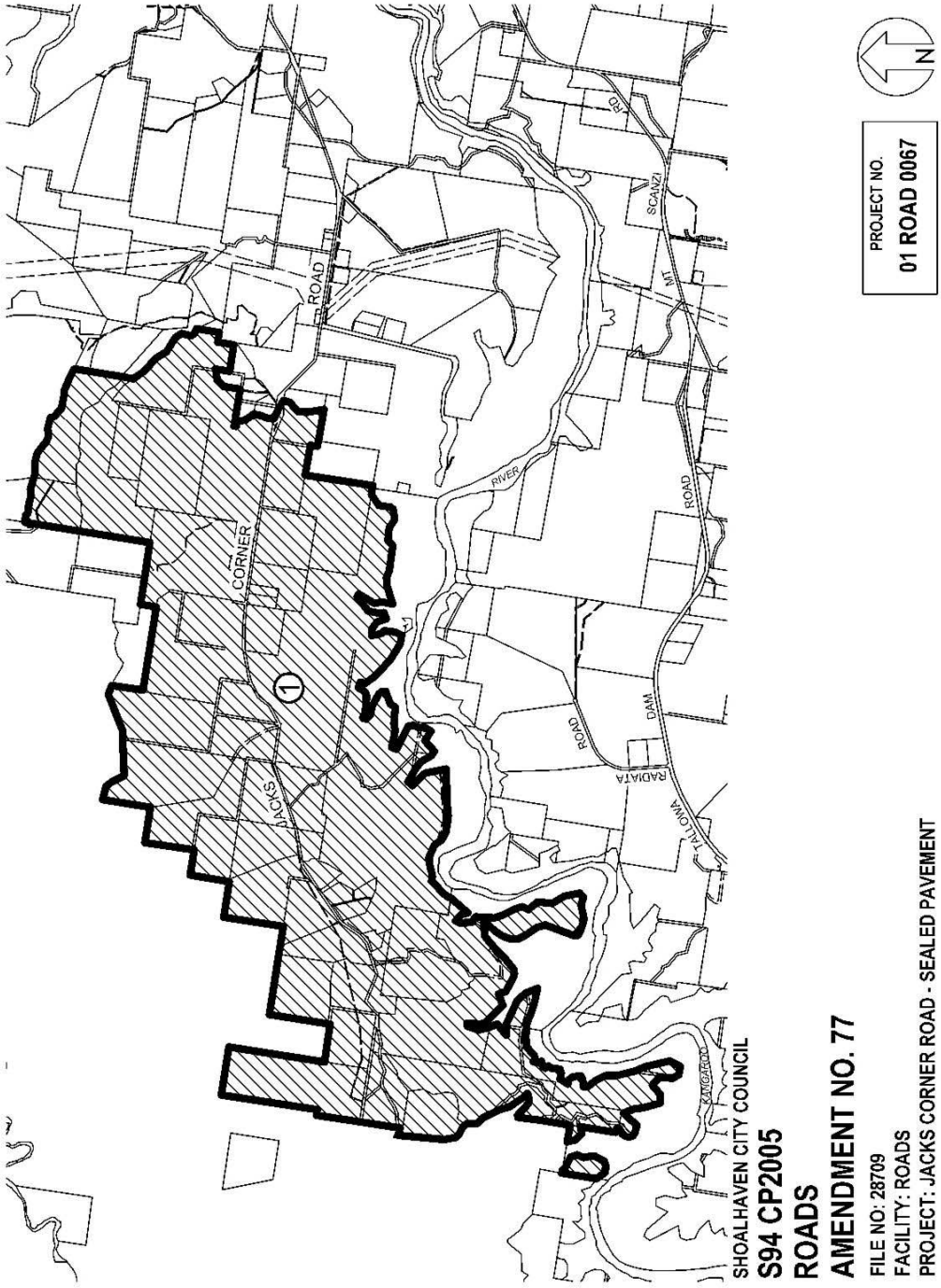
Appendix F - 01 ROAD 0054: Benefit Area Map



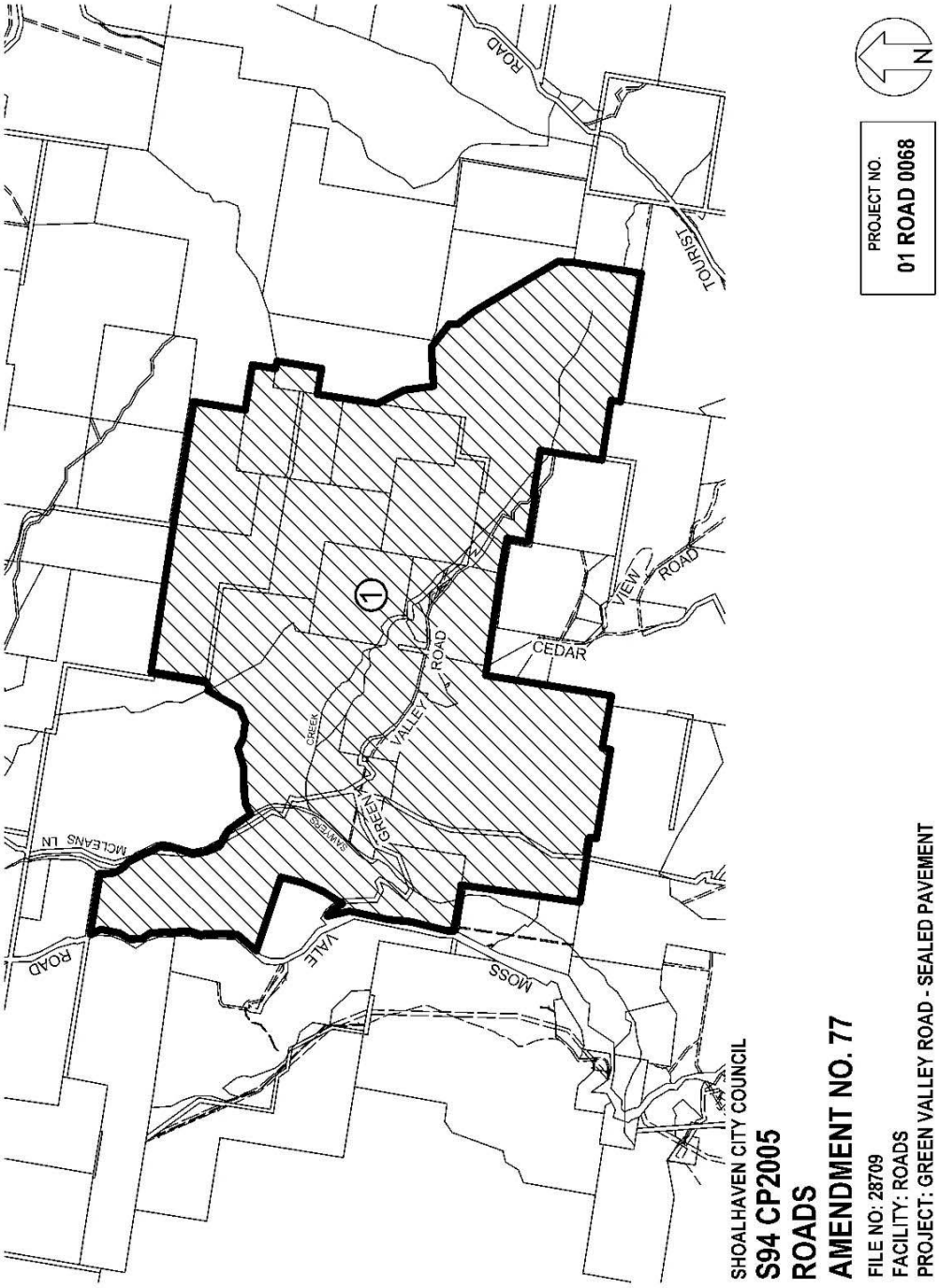
Appendix F - 01 ROAD 0064: Benefit Area Map



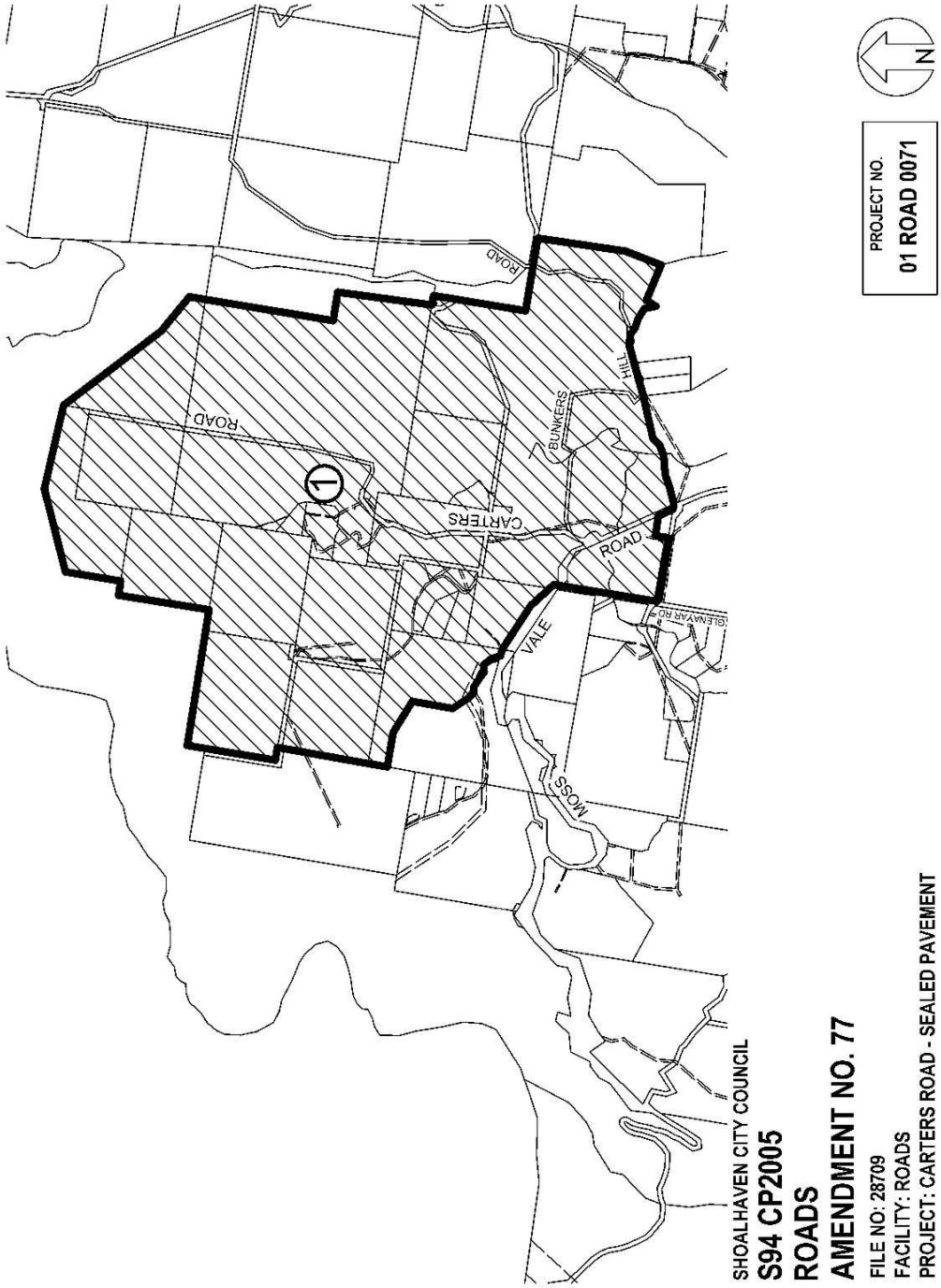
Appendix F - 01 ROAD 0067: Benefit Area Map



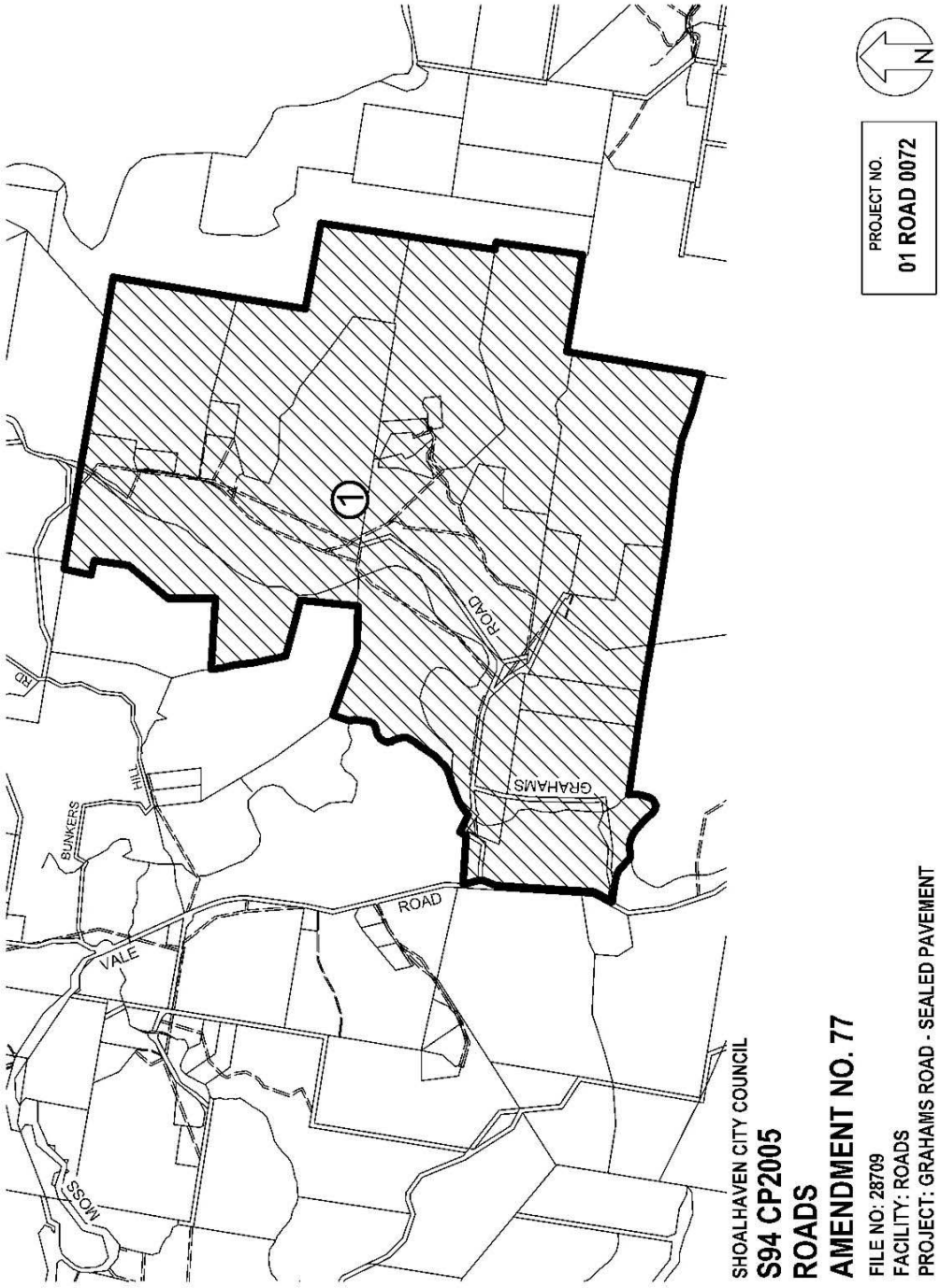
Appendix F - 01 ROAD 0068: Benefit Area Map



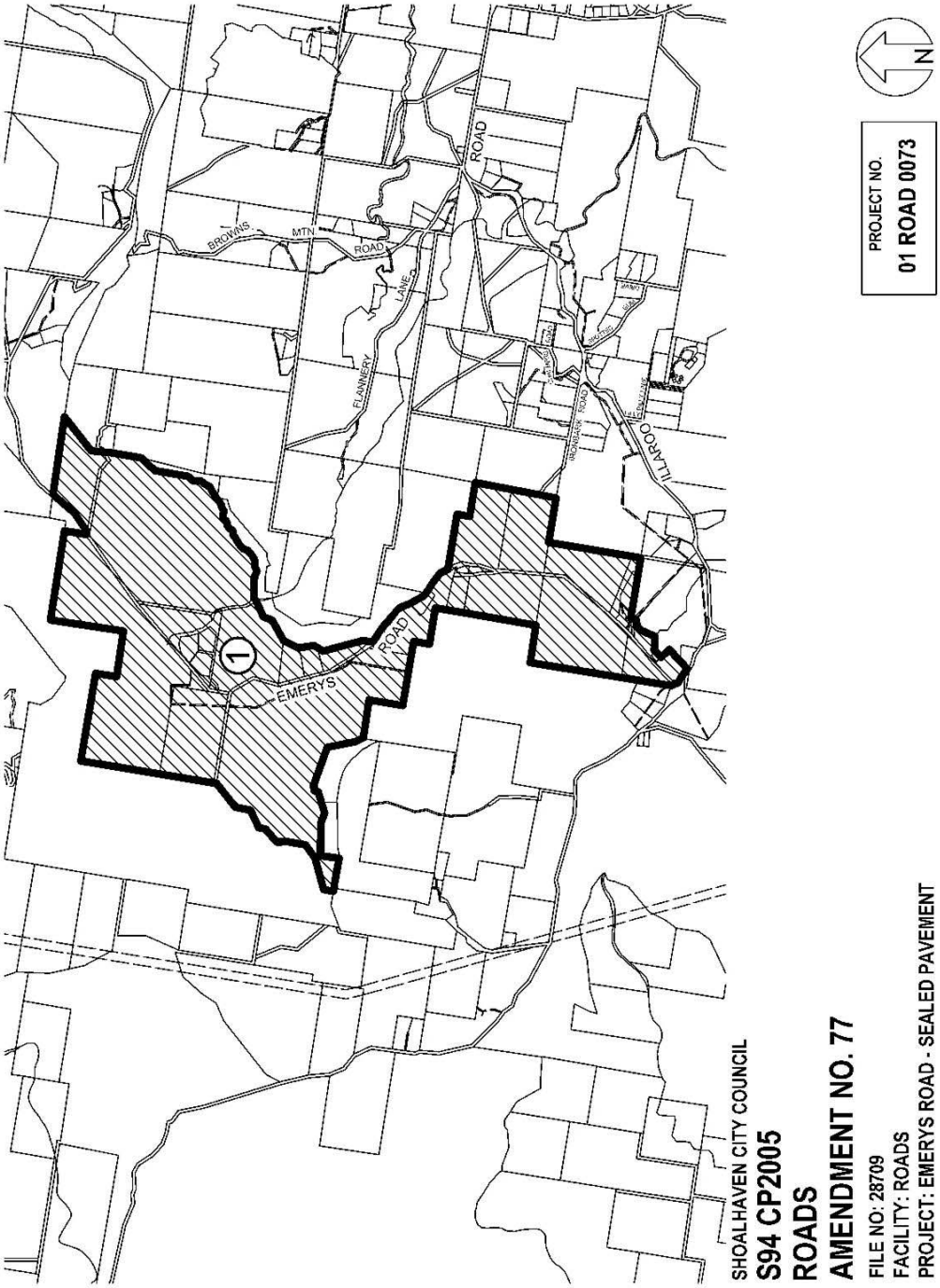
Appendix F - 01 ROAD 0071: Benefit Area Map



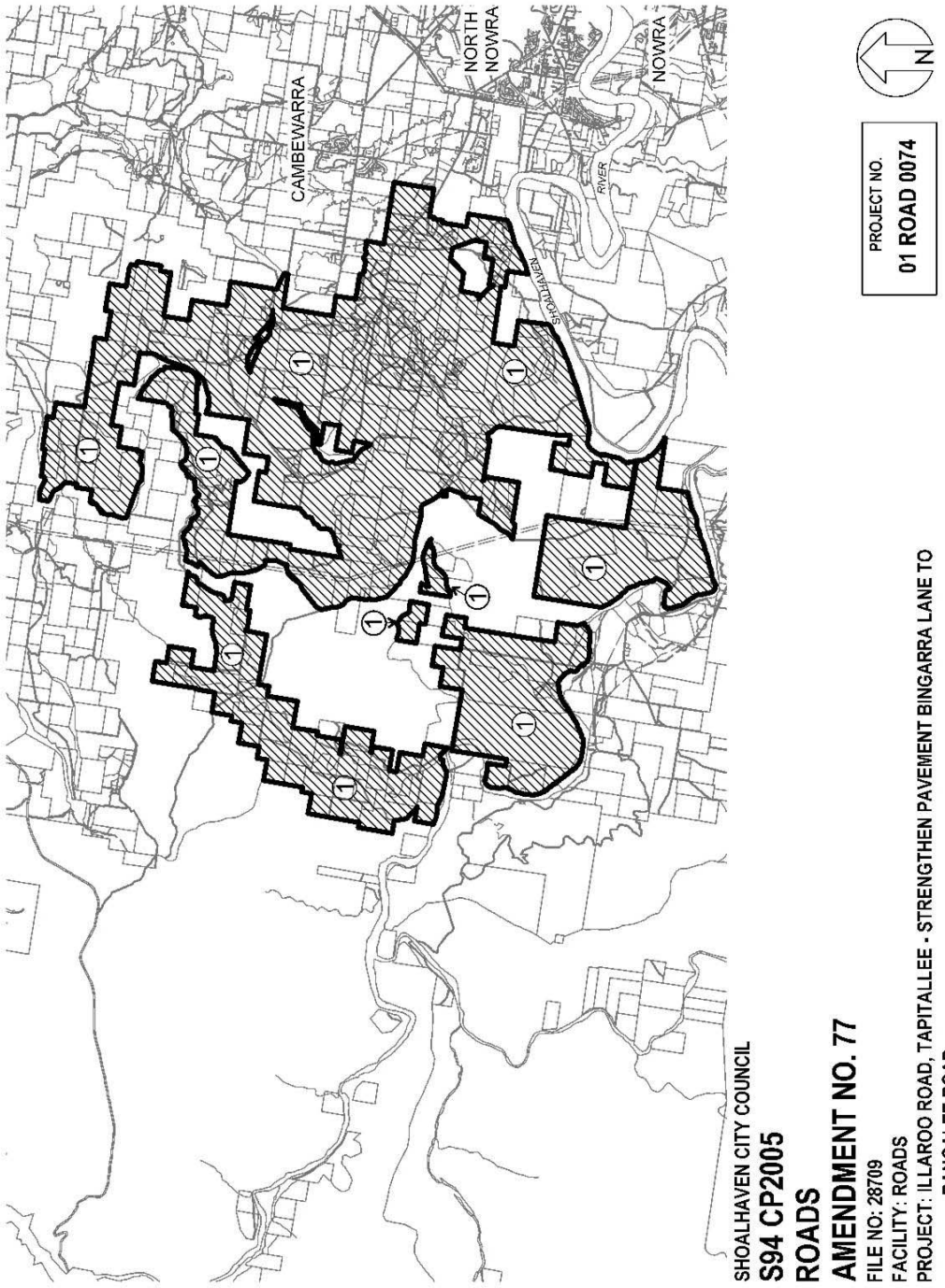
Appendix F - 01 ROAD 0072: Benefit Area Map



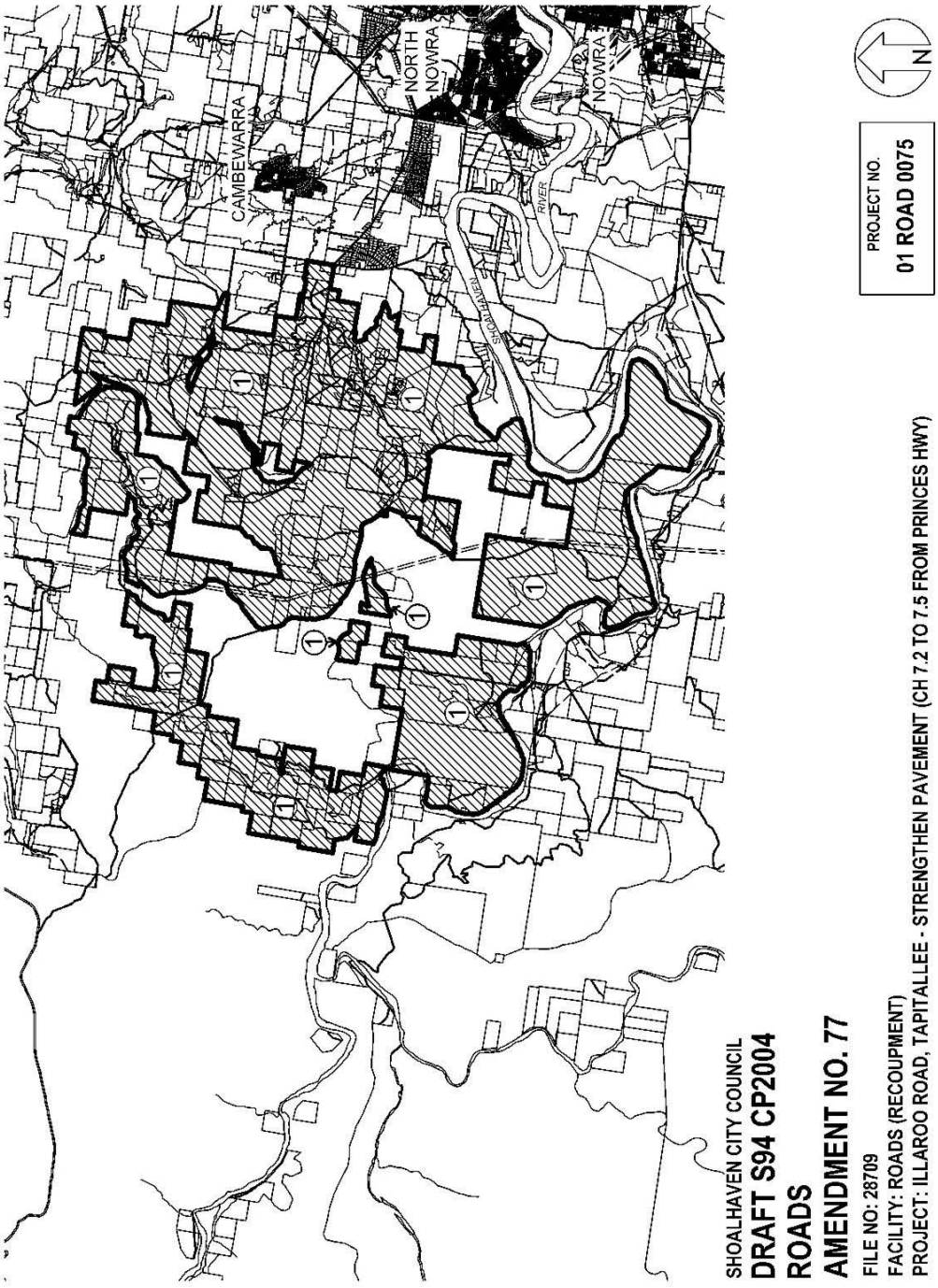
Appendix F - 01 ROAD 0073: Benefit Area Map



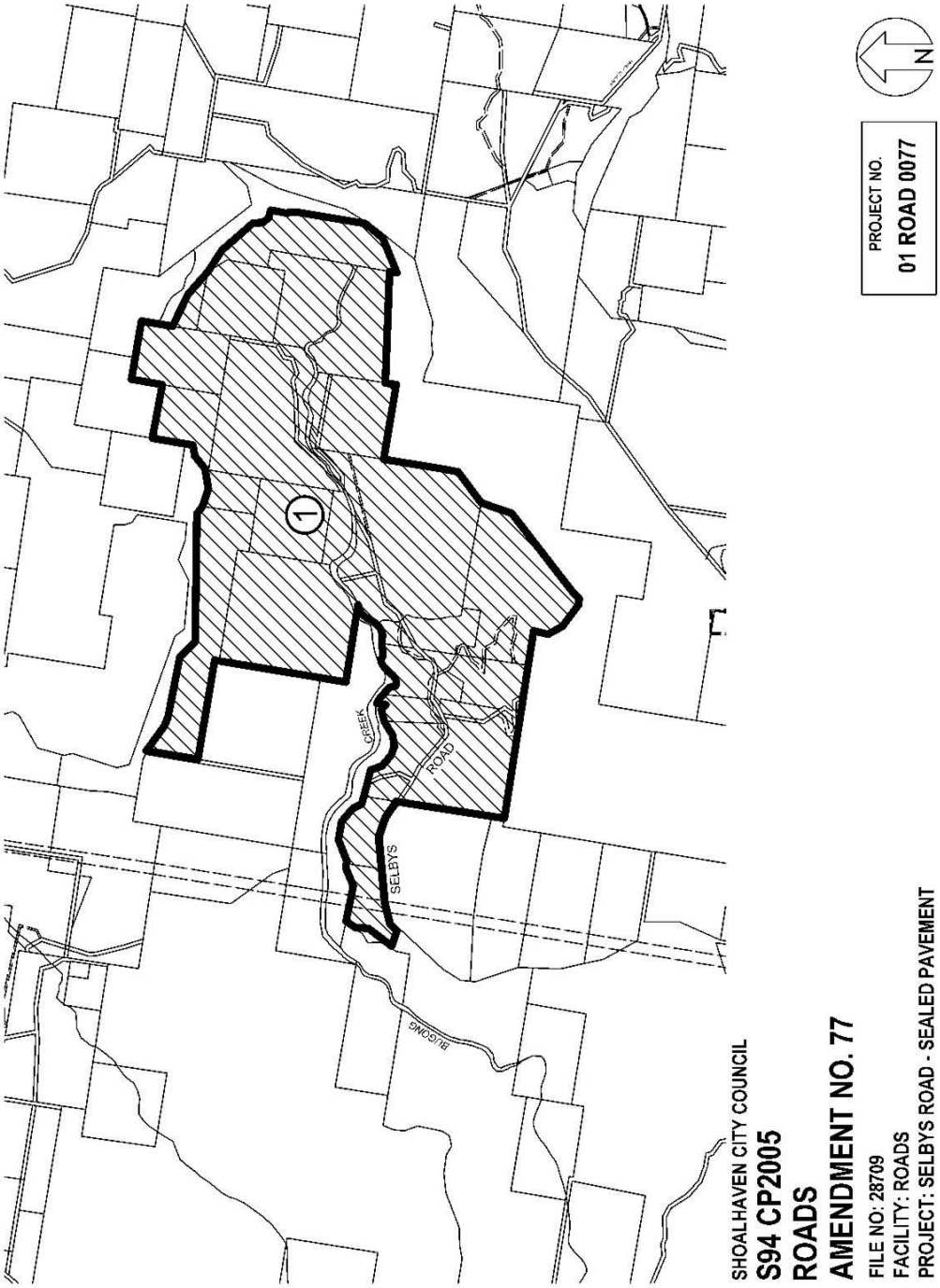
Appendix F - 01 ROAD 0074: Benefit Area Map



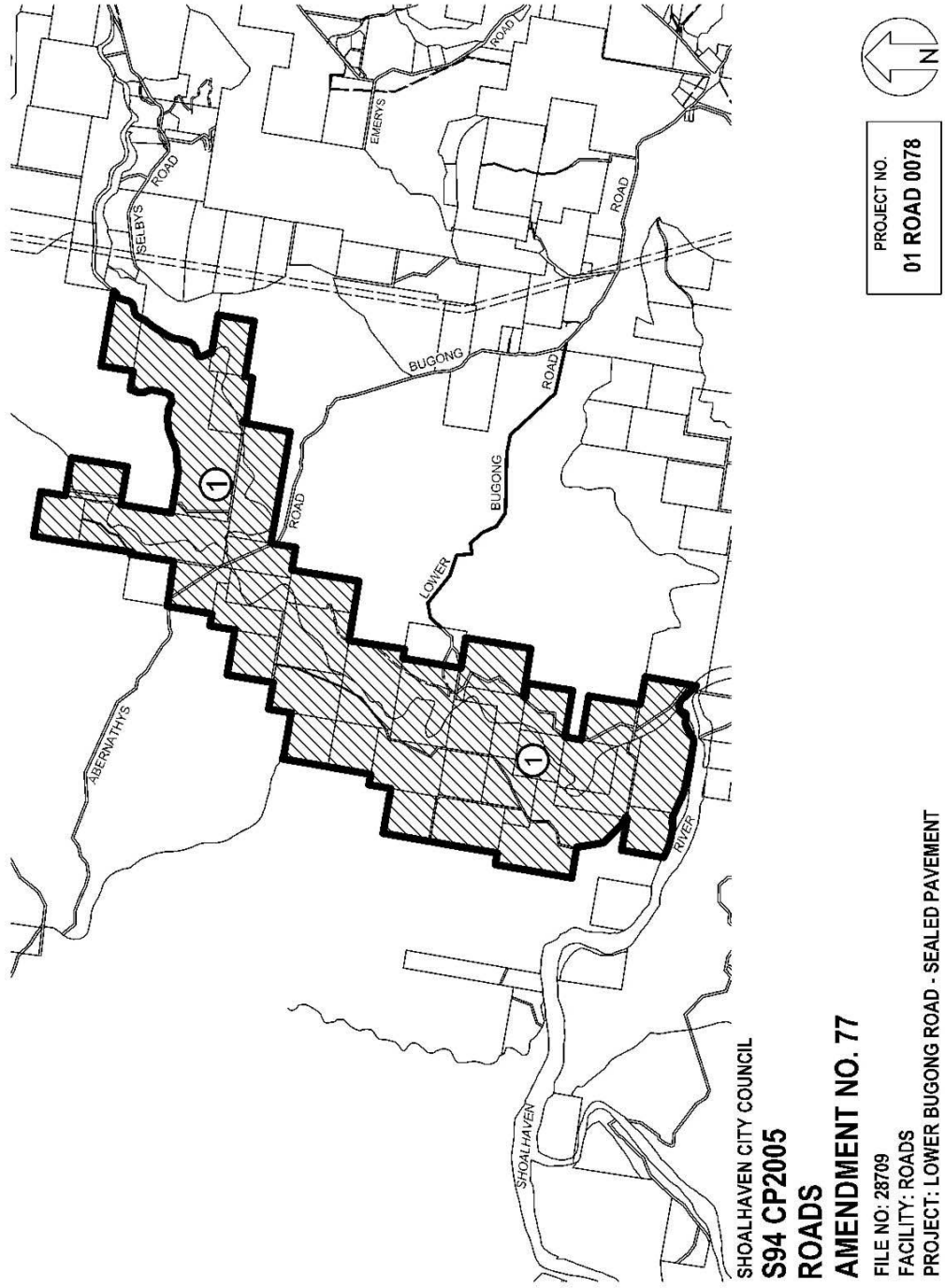
Appendix F - 01 ROAD 0075: Benefit Area Map



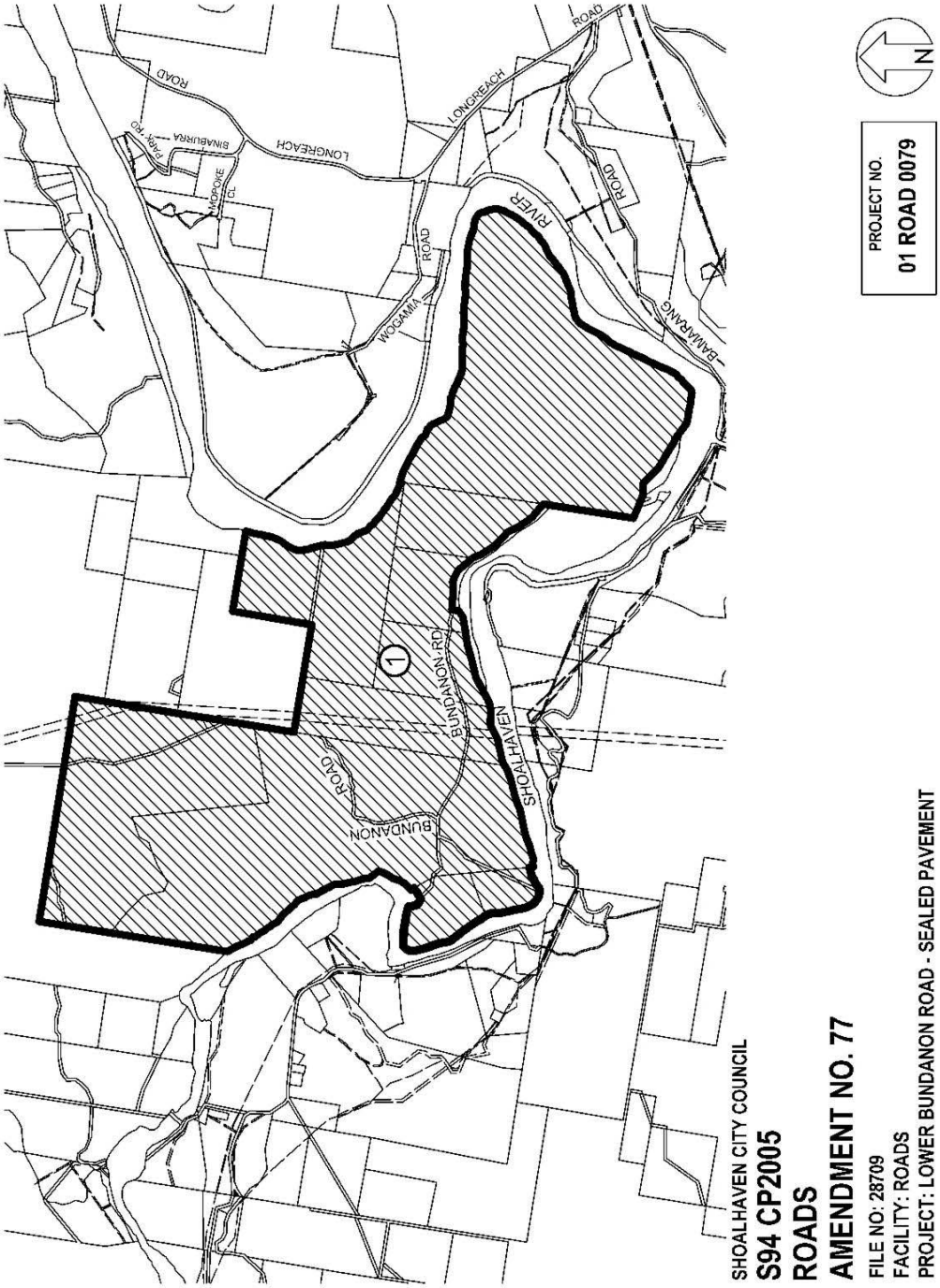
Appendix F - 01 ROAD 0077: Benefit Area Map



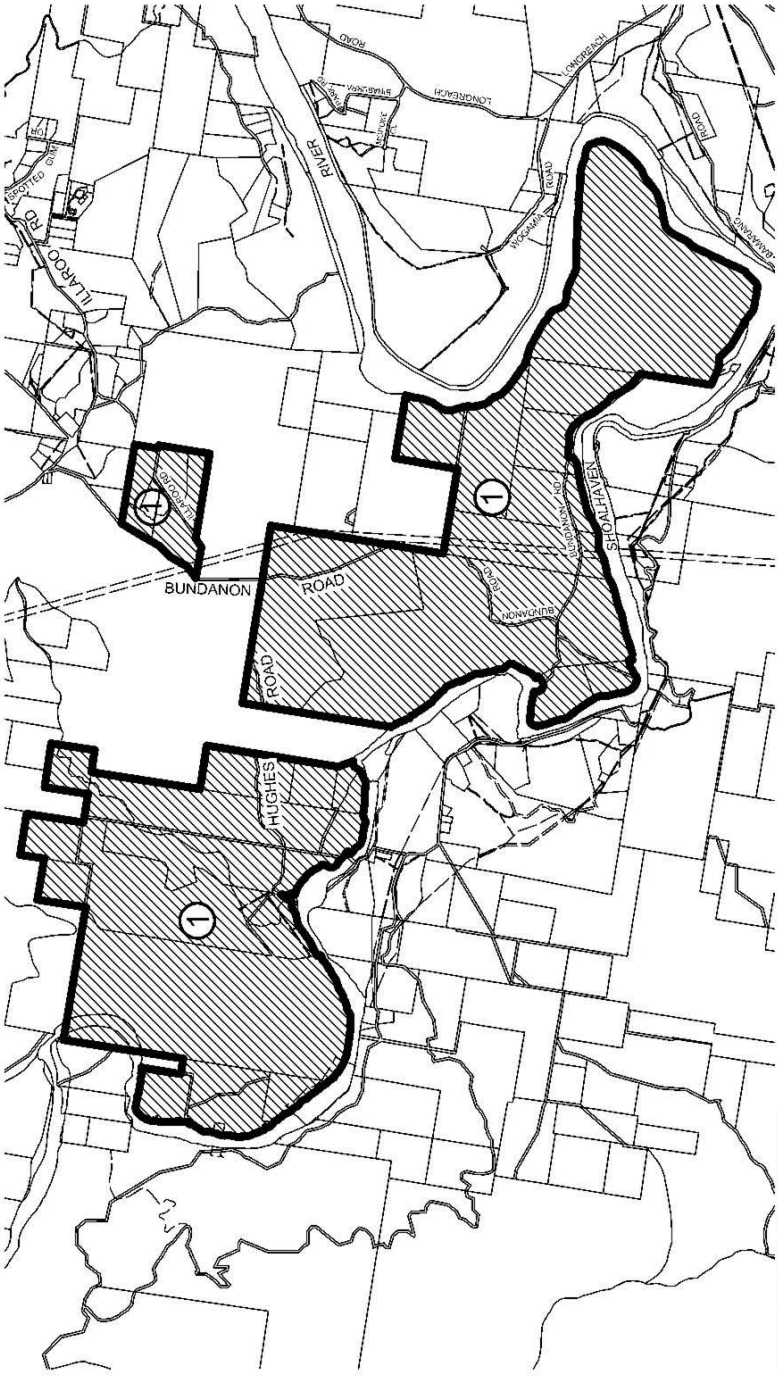
Appendix F - 01 ROAD 0078: Benefit Area Map



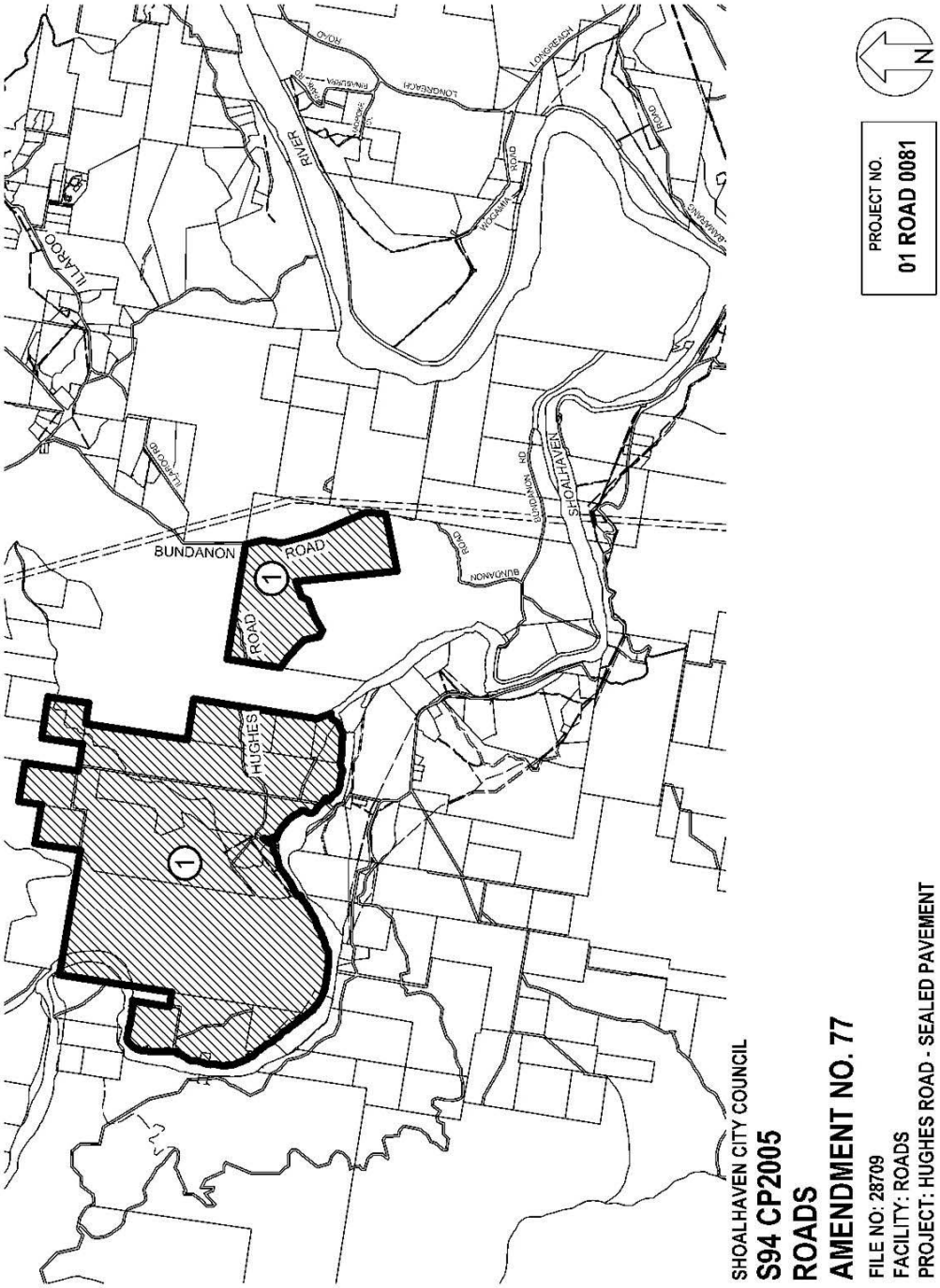
Appendix F - 01 ROAD 0079: Benefit Area Map



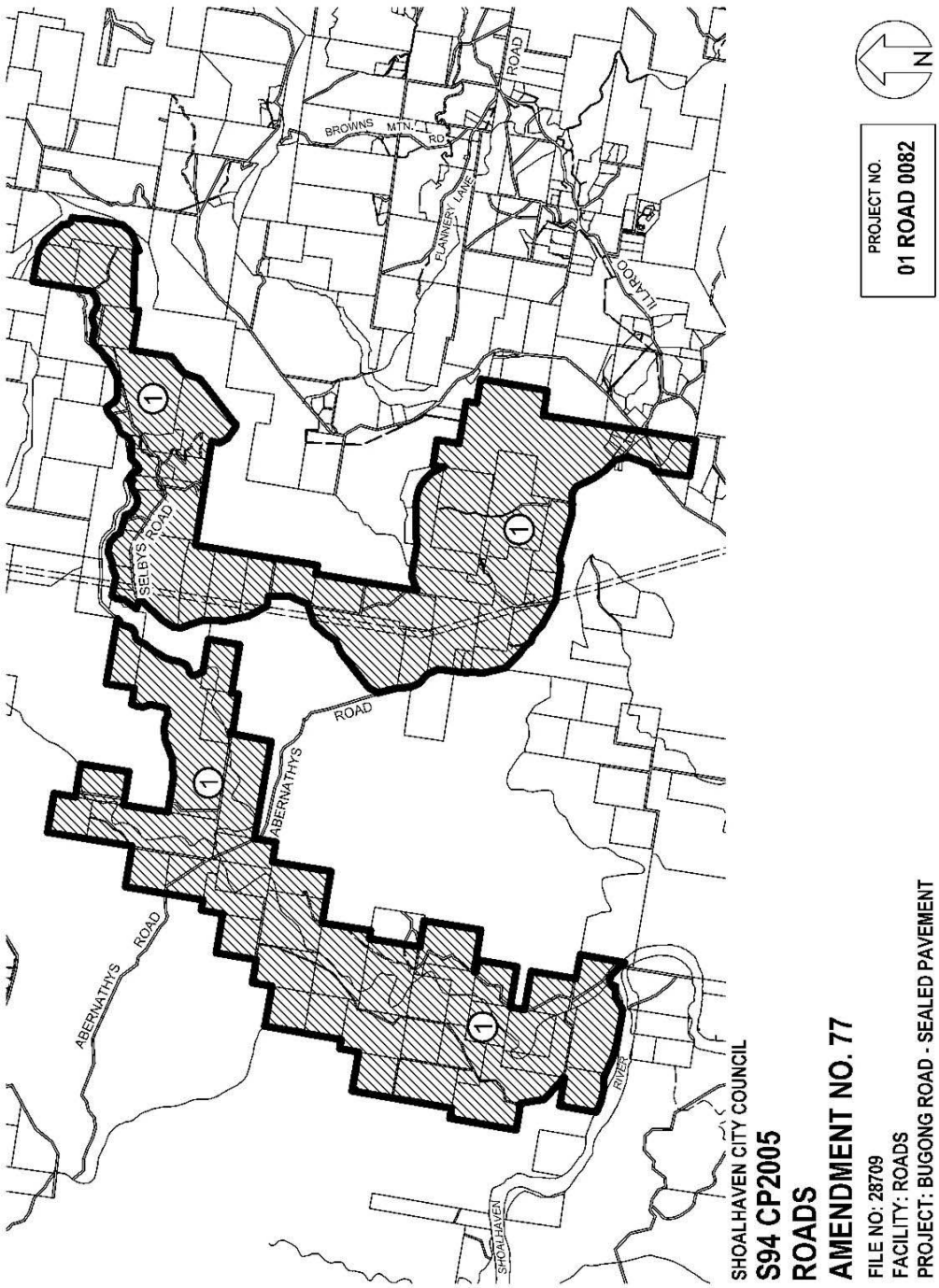
Appendix F - 01 ROAD 0080: Benefit Area Map



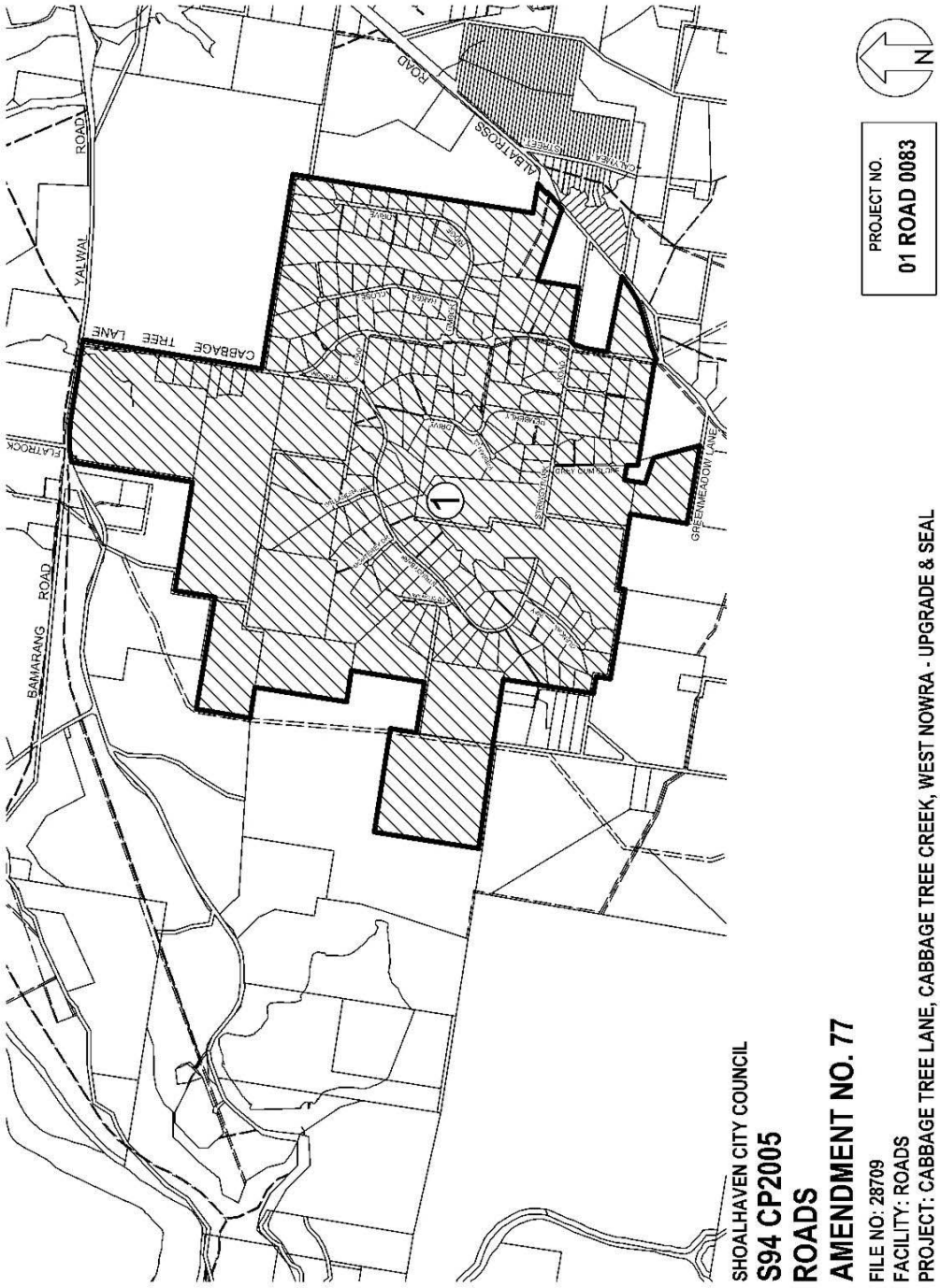
Appendix F - 01 ROAD 0081: Benefit Area Map



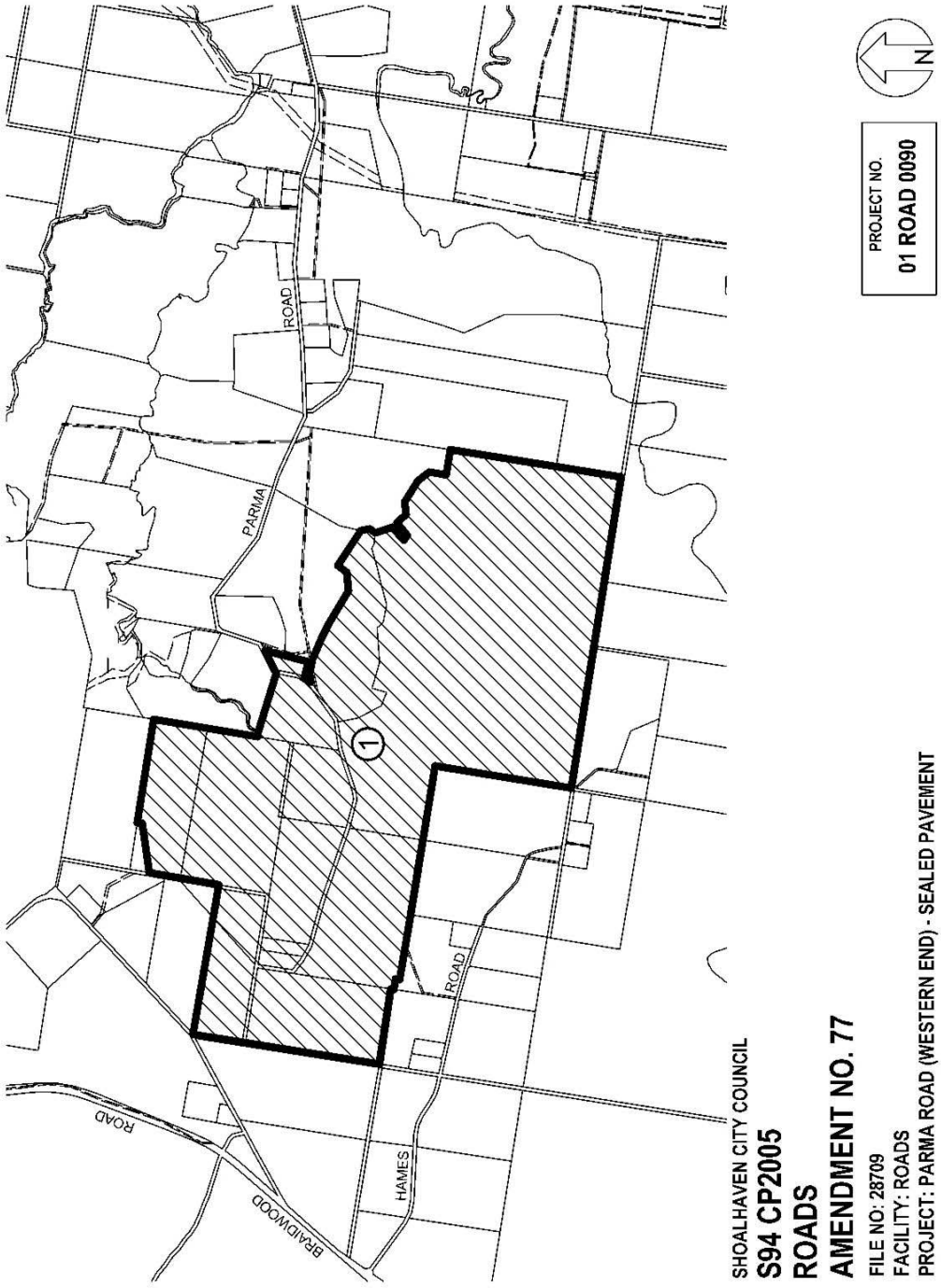
Appendix F - 01 ROAD 0082: Benefit Area Map



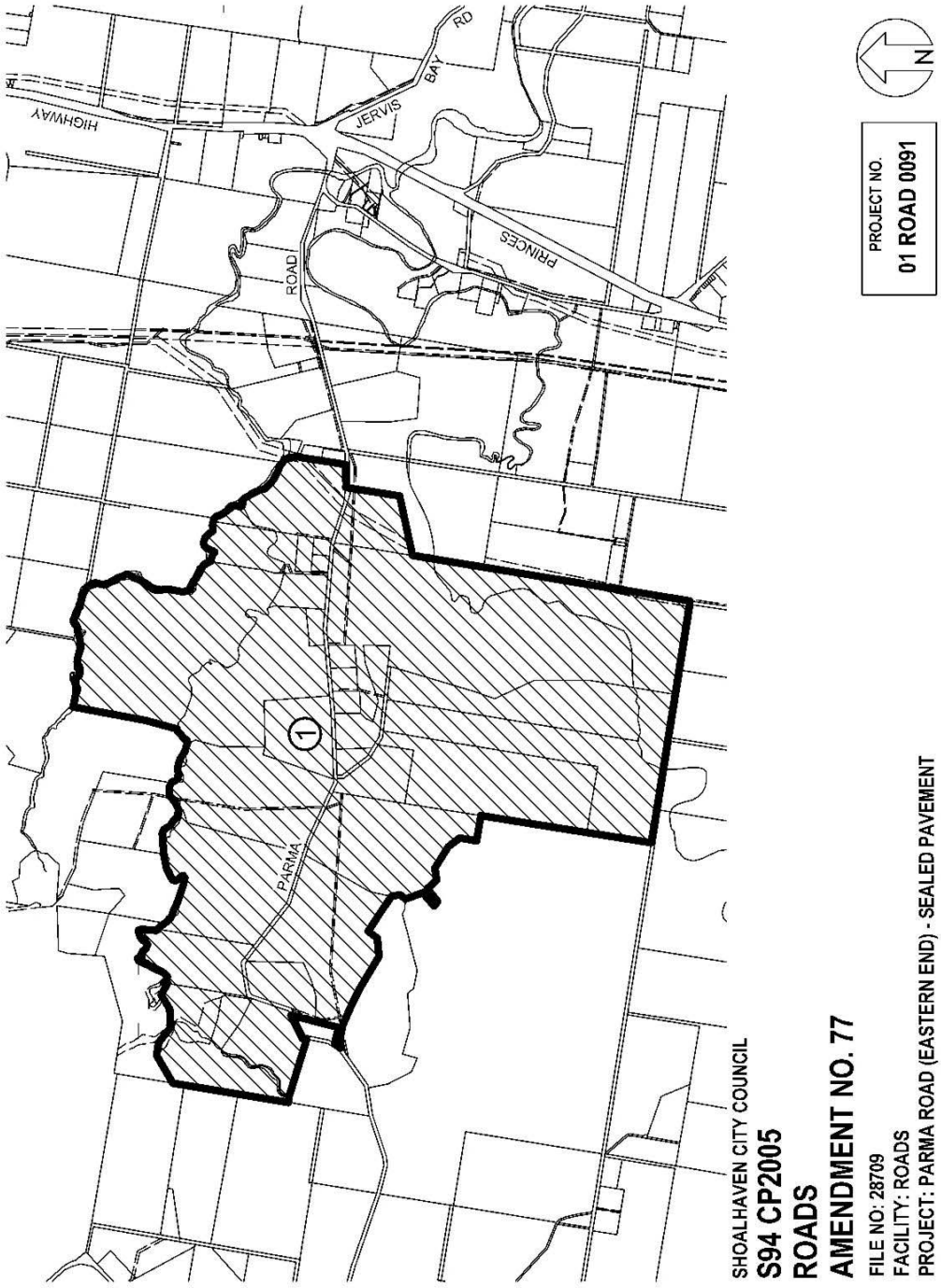
Appendix F - 01 ROAD 0083: Benefit Area Map



Appendix F - 01 ROAD 0090: Benefit Area Map

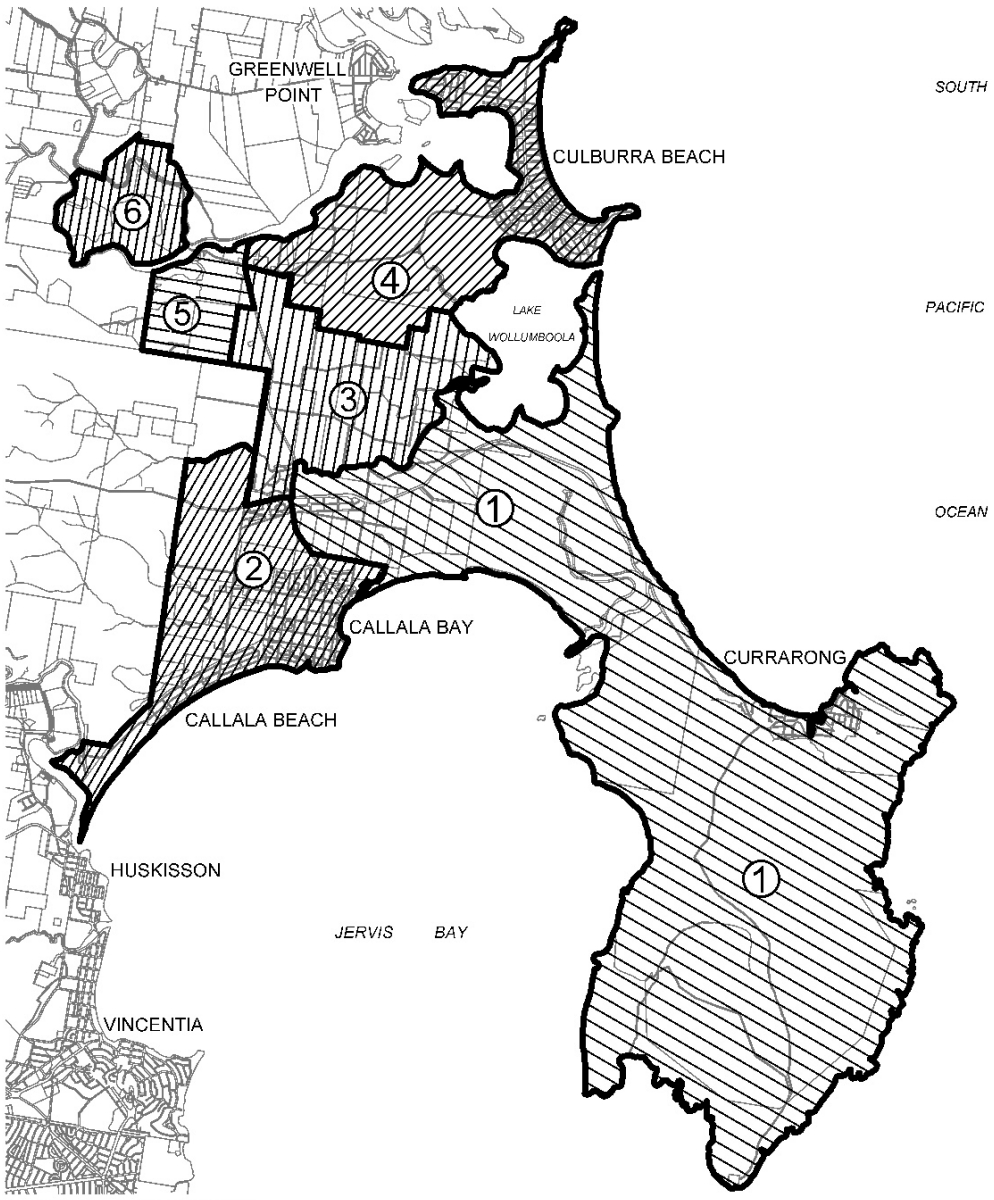


Appendix F - 01 ROAD 0091: Benefit Area Map



Appendix F - 01 ROAD 0093: Benefit Area Map

Appendix F - 01 ROAD 0096: Benefit Area Map



SHOALHAVEN CITY COUNCIL

S94 CP2005

ROADS

AMENDMENT NO. 77

FILE NO: 28709

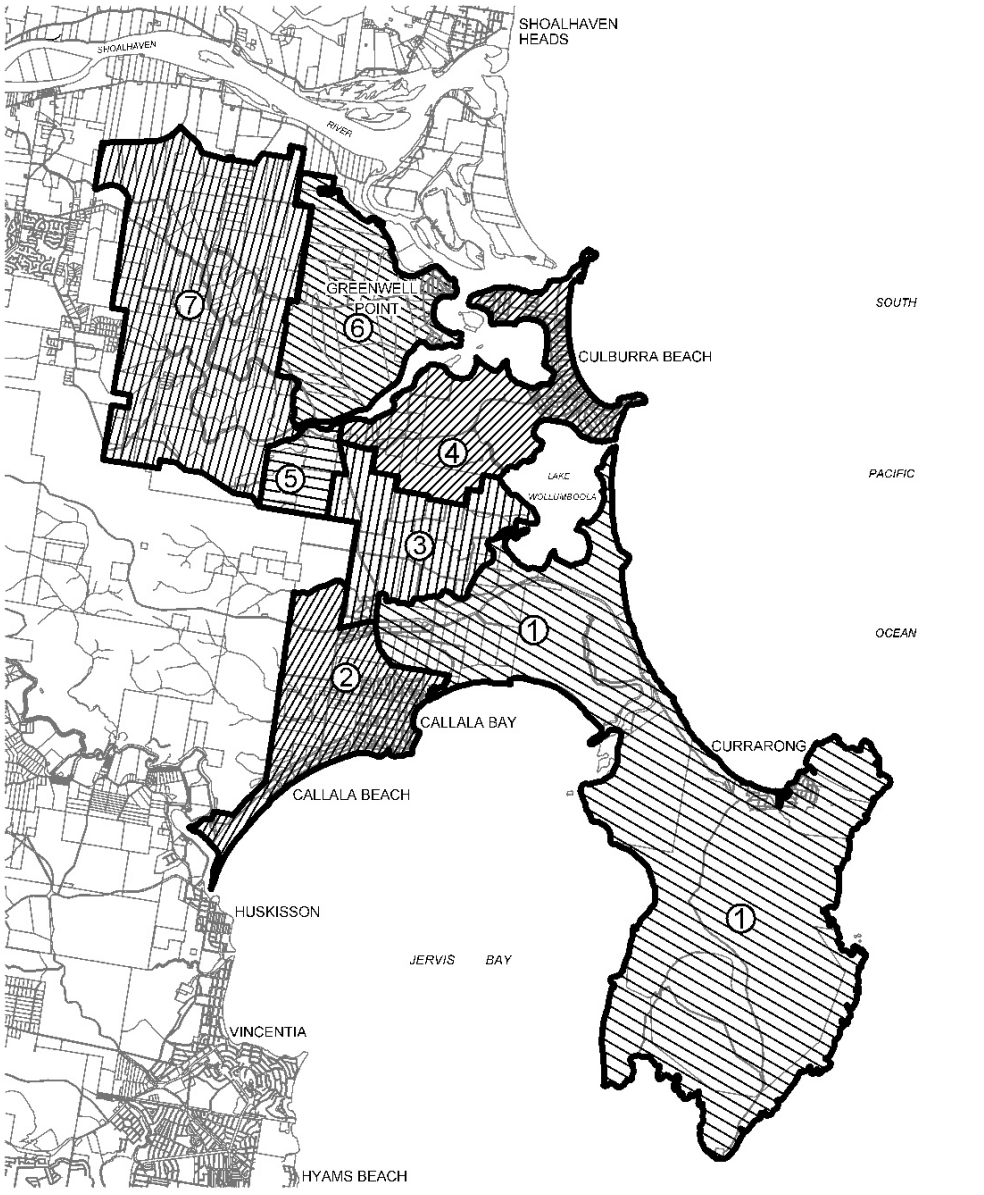
FACILITY: ROADS

PROJECT: PYREE LANE & CULBURRA ROAD, PYREE - STRENGTHEN PAVEMENT VARIOUS LOCATIONS & BRIDGE IMPROVEMENTS

PROJECT NO.
01 ROAD 0096

N

Appendix F - 01 ROAD 0099: Benefit Area Map



SHOALHAVEN CITY COUNCIL

S94 CP2005

ROADS

AMENDMENT NO. 77

FILE NO: 28709

FACILITY: ROADS

PROJECT: GREENWELL POINT ROAD, WORRIGEE - STRENGTHEN PAVEMENT VARIOUS LOCATIONS

PROJECT NO.
01 ROAD 0099

Appendix F - 01 ROAD 0100: Benefit Area Map

SHOALHAVEN CITY COUNCIL

S94 CP2005

ROADS

AMENDMENT NO. 77

FILE NO: 28709

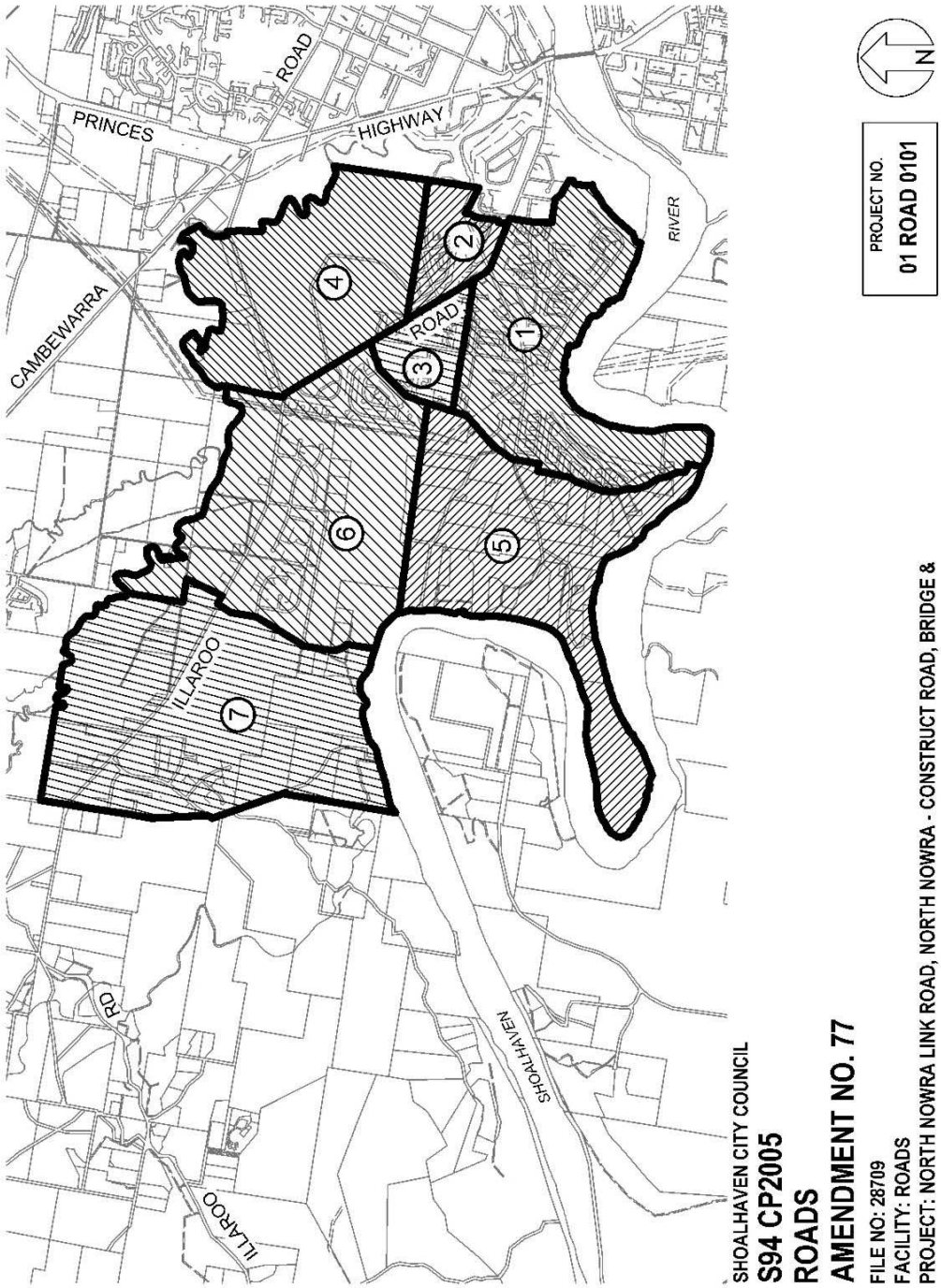
FACILITY: ROADS

PROJECT: GREENWELL POINT ROAD, GREENWELL POINT - STRENGTHEN PAVEMENT, BERRELLAN ST. TO JERVIS ST.

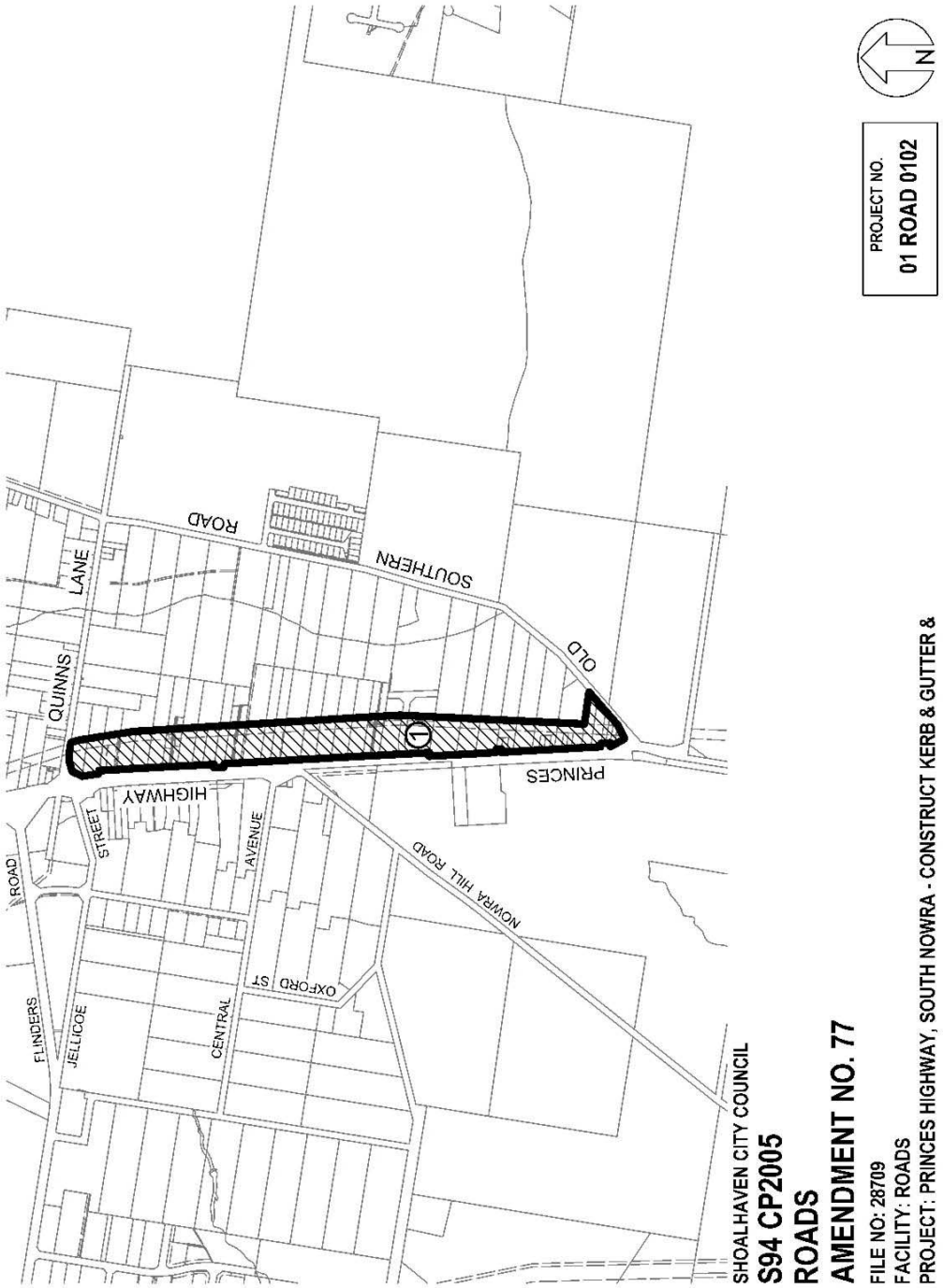
PROJECT NO.
01 ROAD 0100

N

Appendix F - 01 ROAD 0101: Benefit Area Map

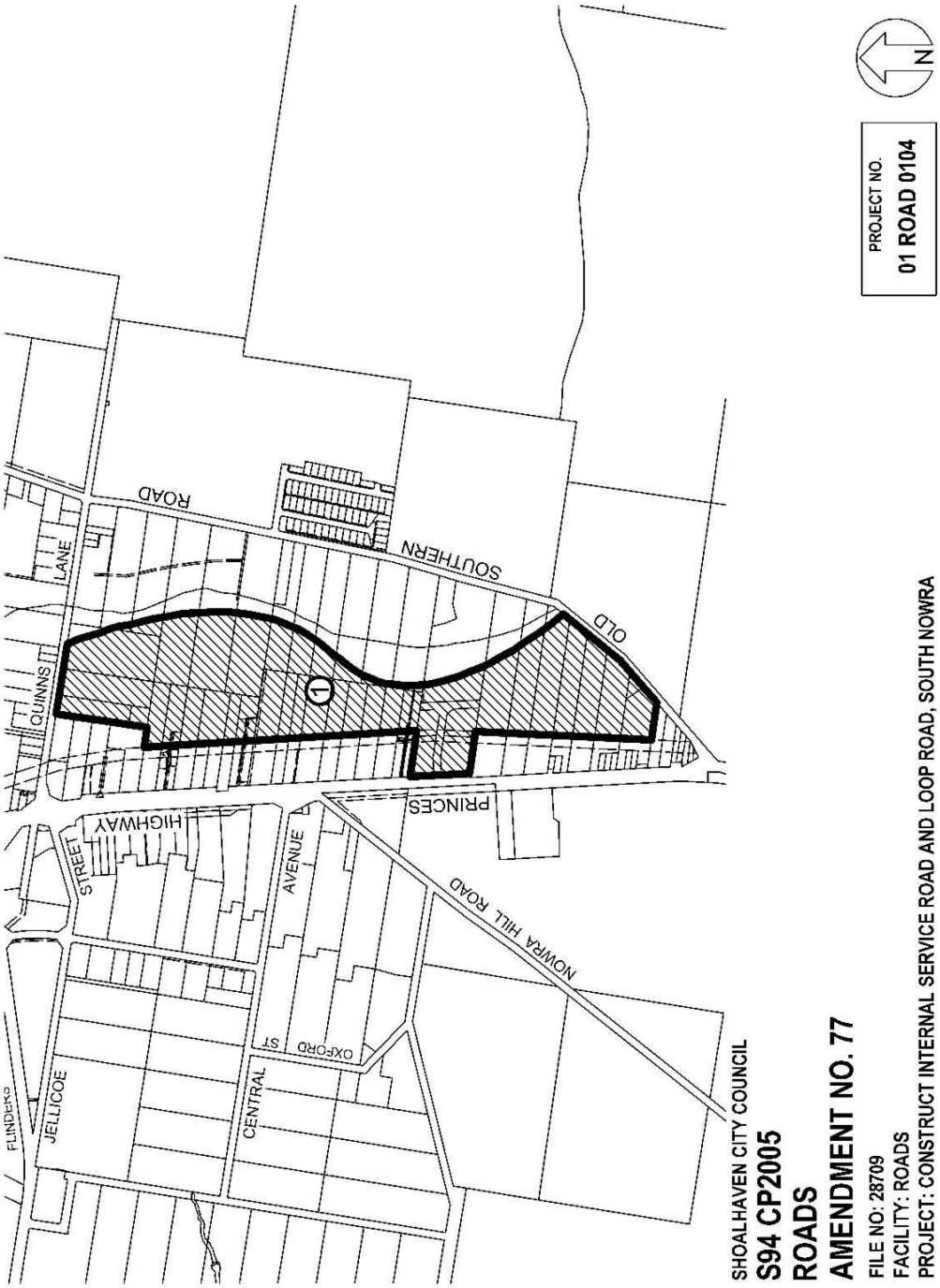


Appendix F - 01 ROAD 0102: Benefit Area Map

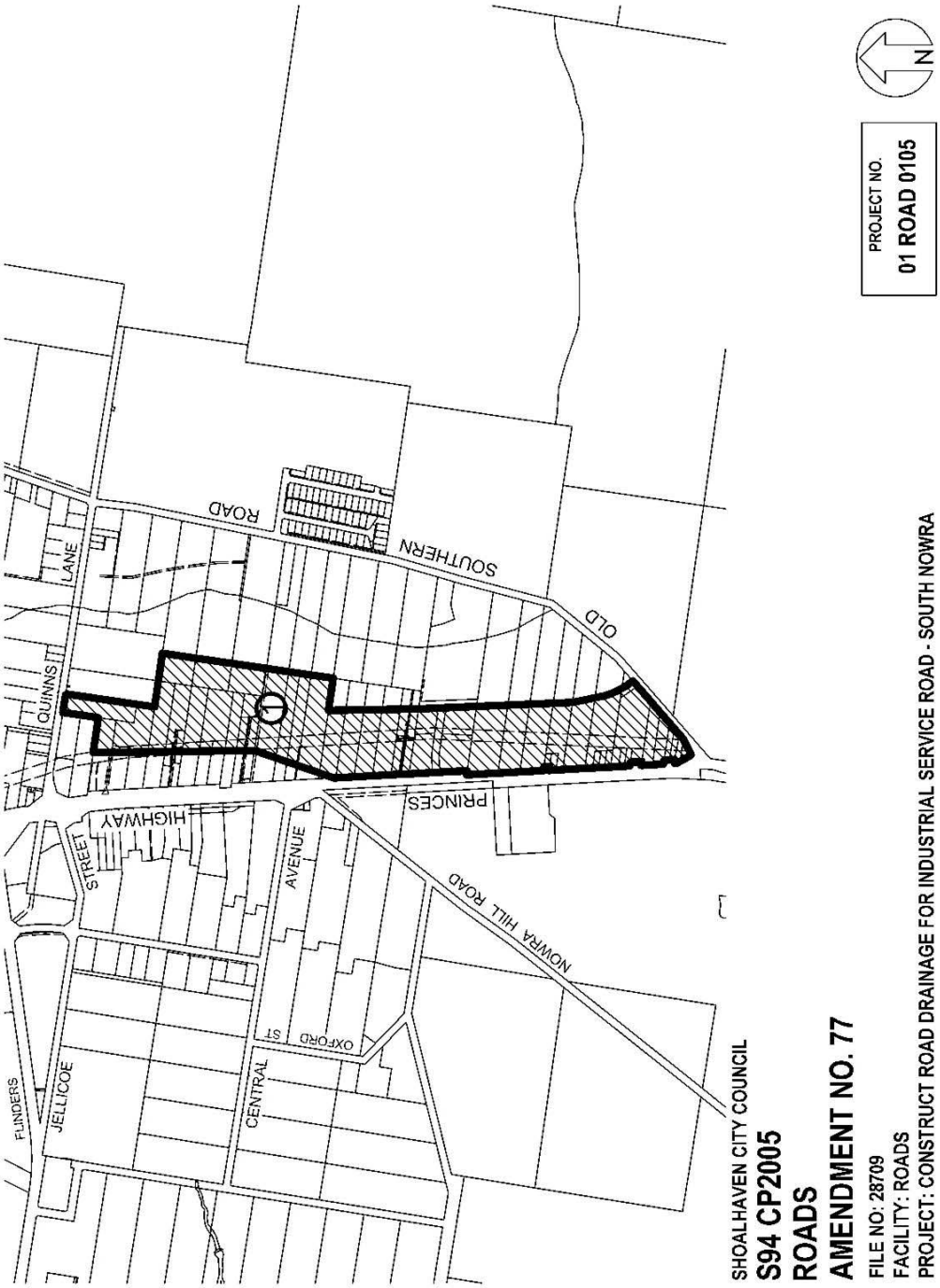


Appendix F - 01 ROAD 0103: Benefit Area Map

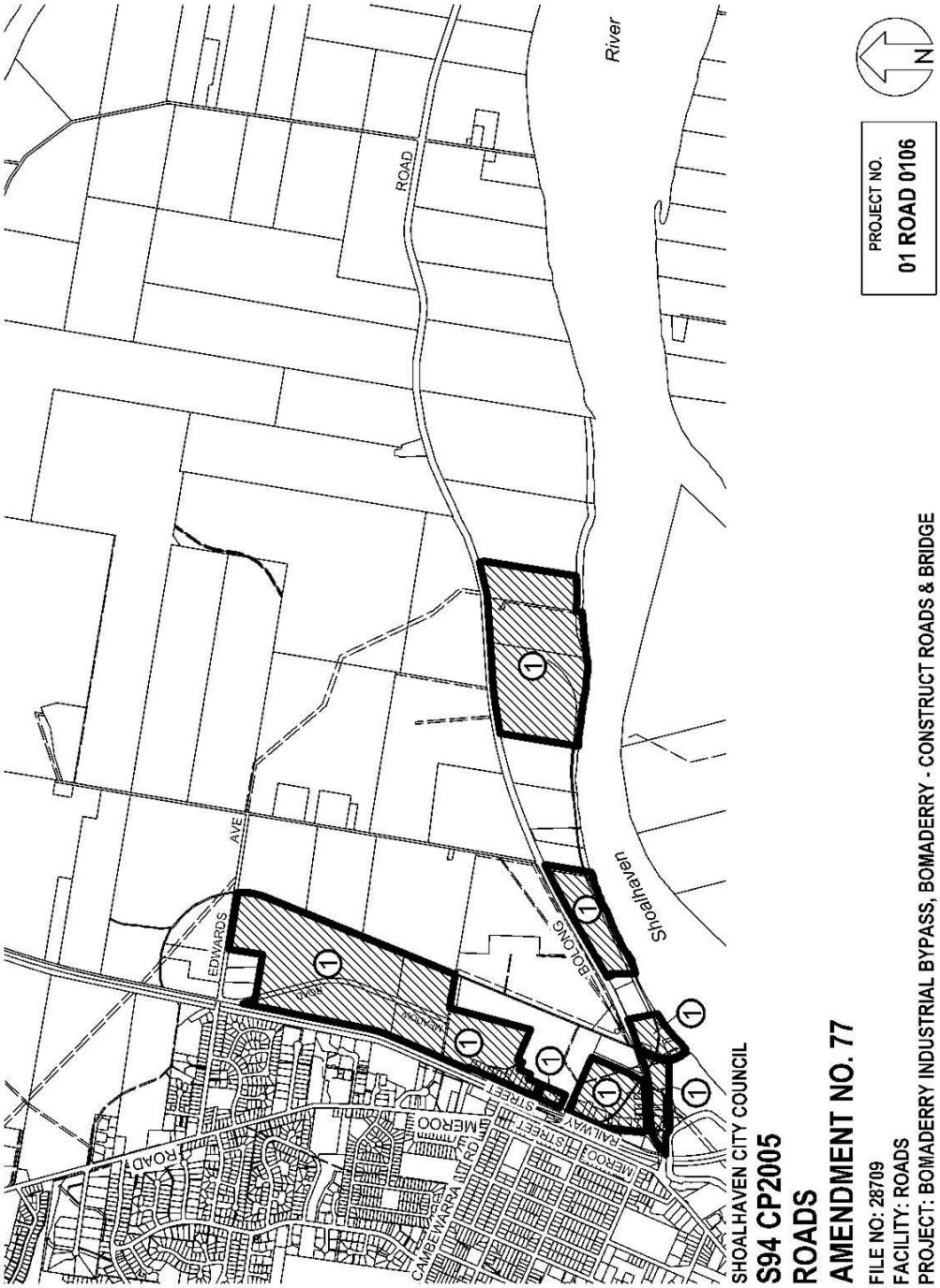
Appendix F - 01 ROAD 0104: Benefit Area Map



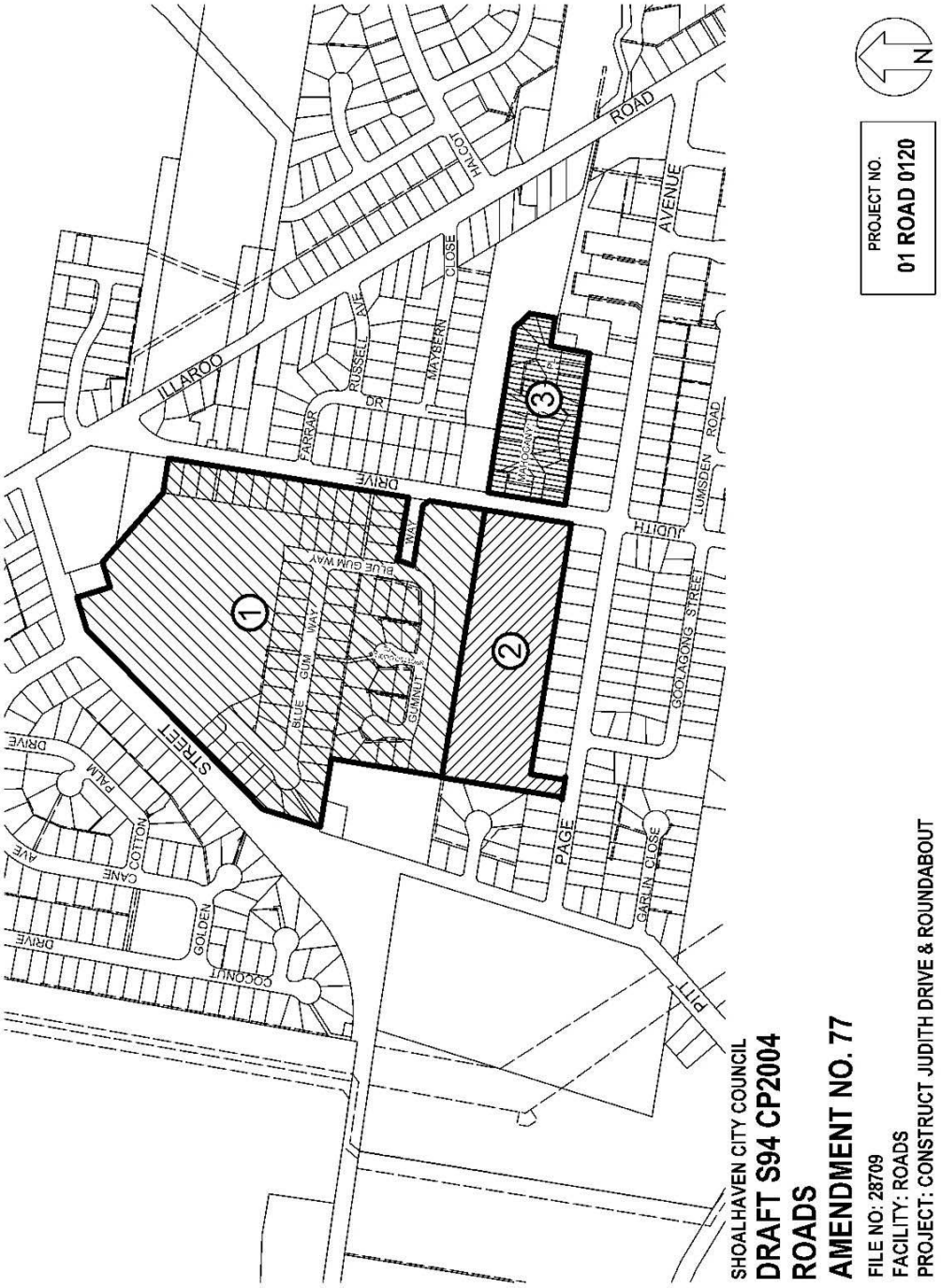
Appendix F - 01 ROAD 0105: Benefit Area Map



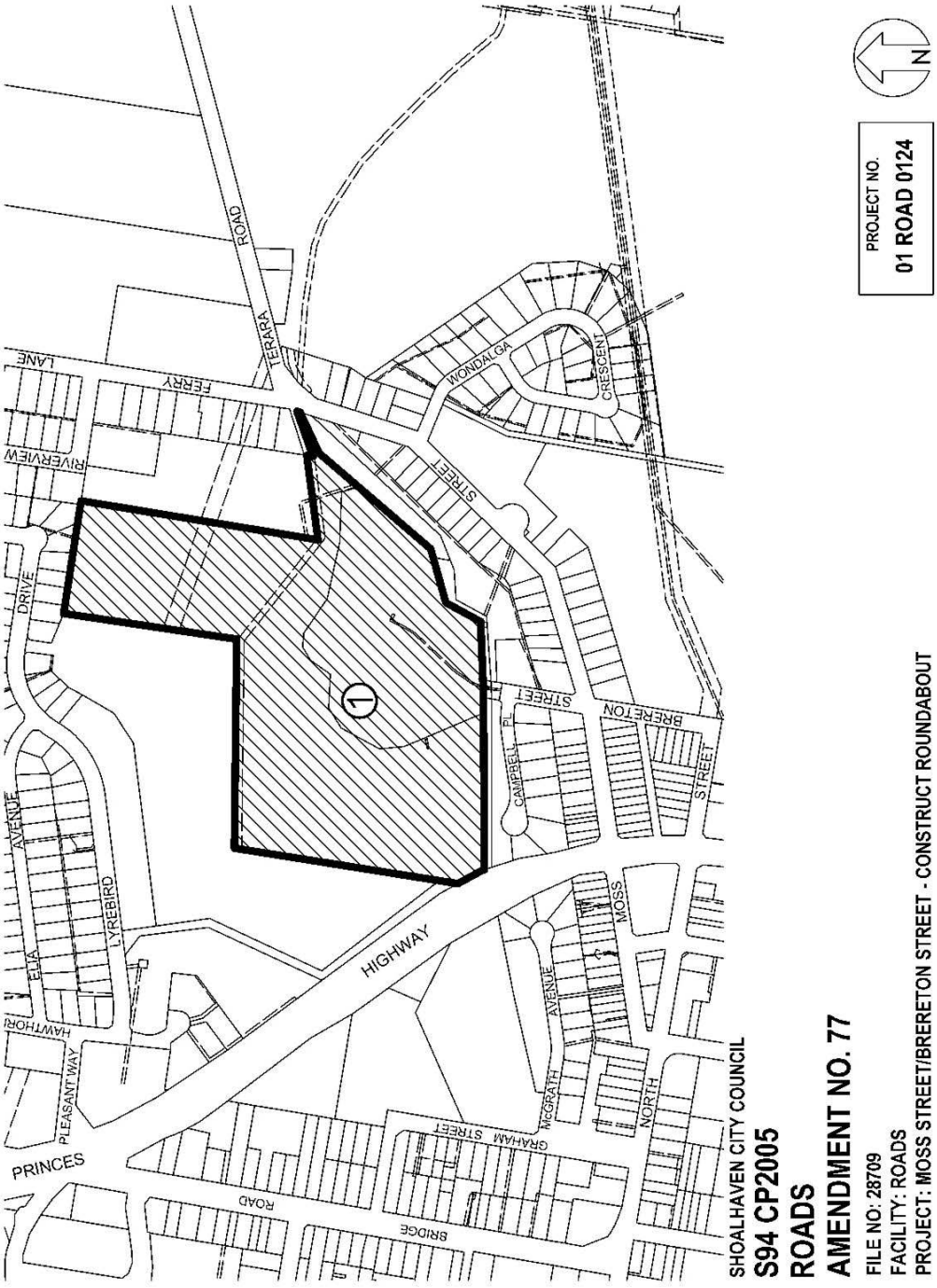
Appendix F - 01 ROAD 0106: Benefit Area Map



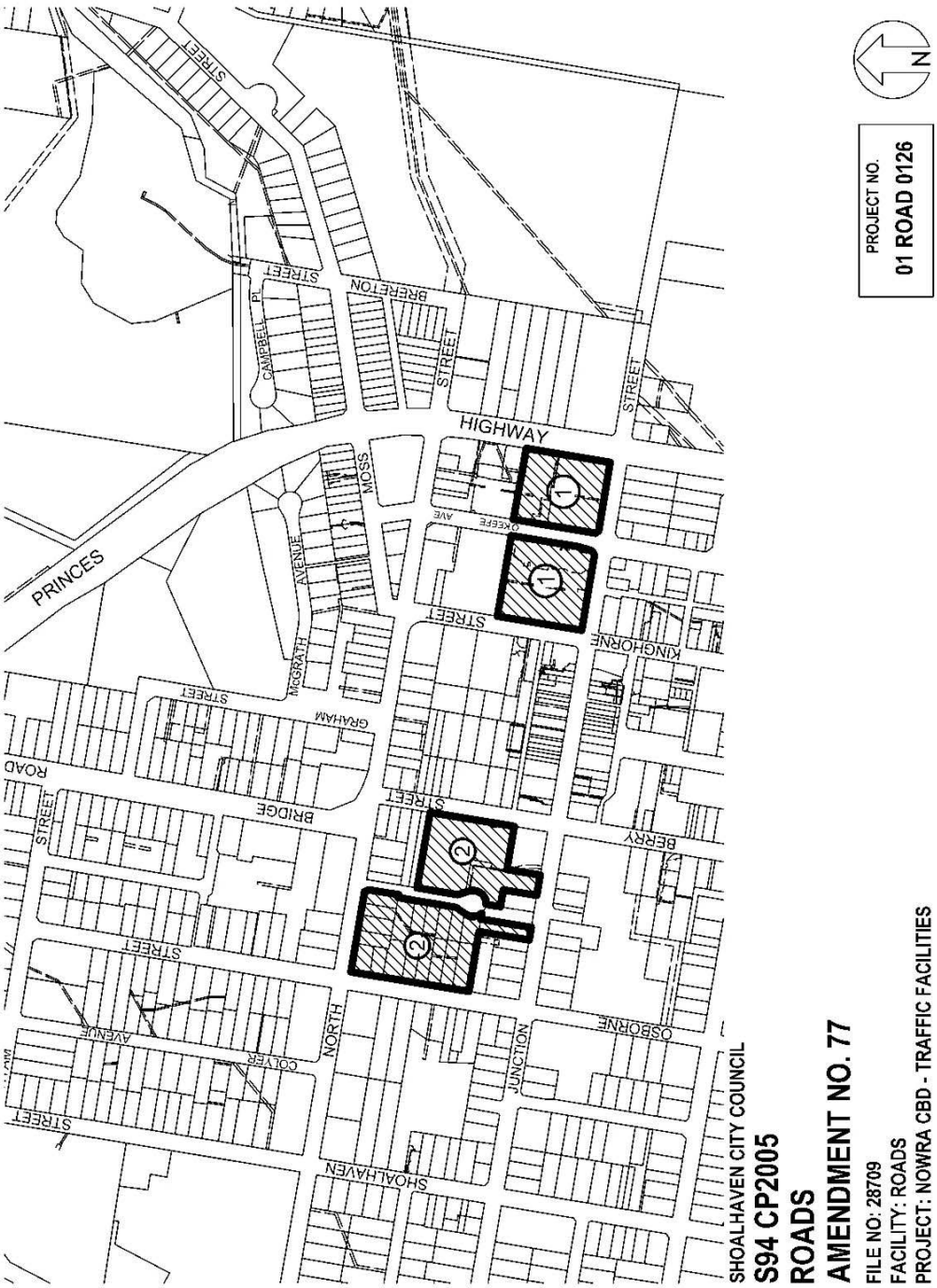
Appendix F - 01 ROAD 0120: Benefit Area Map



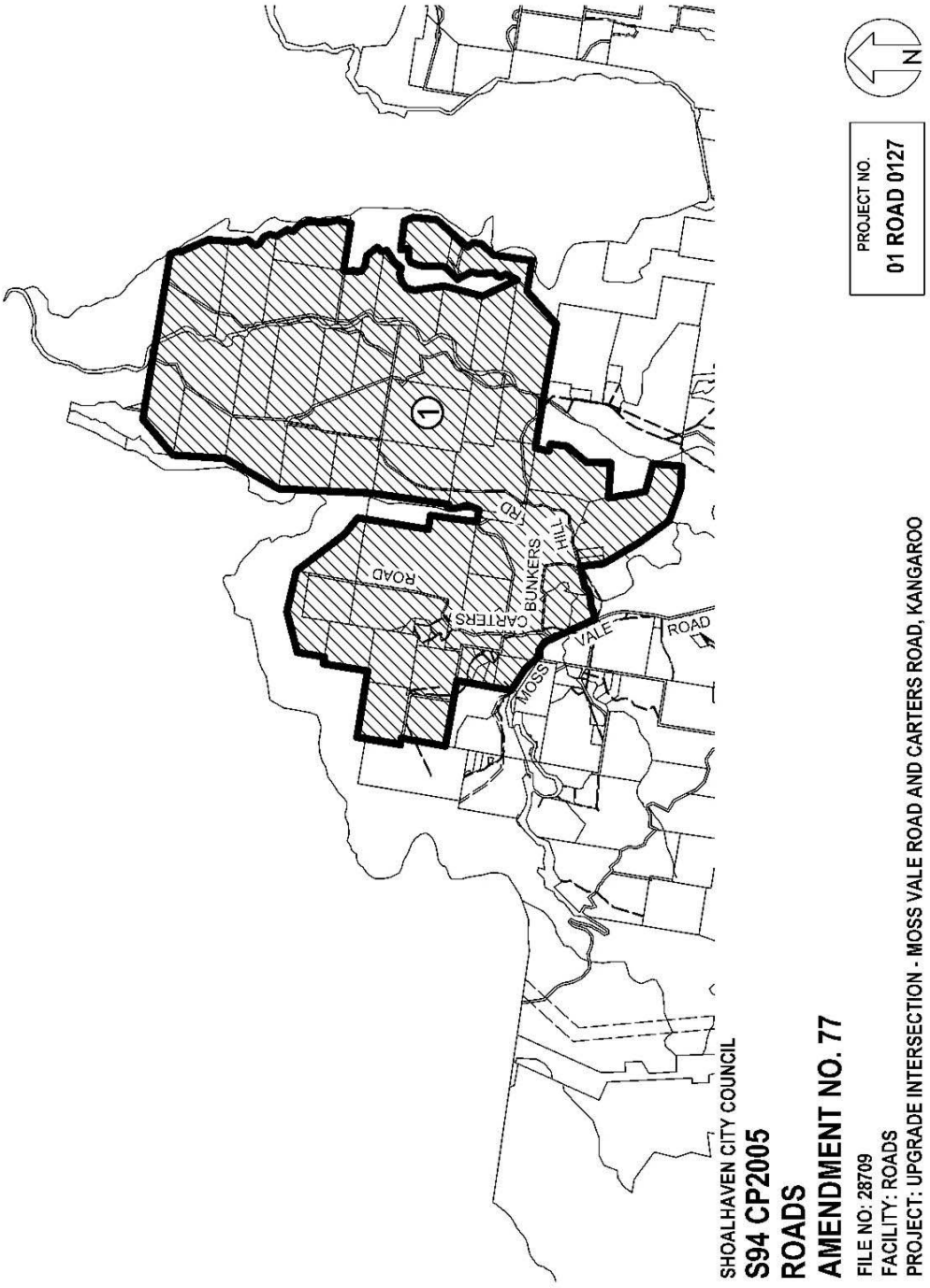
Appendix F - 01 ROAD 0124: Benefit Area Map



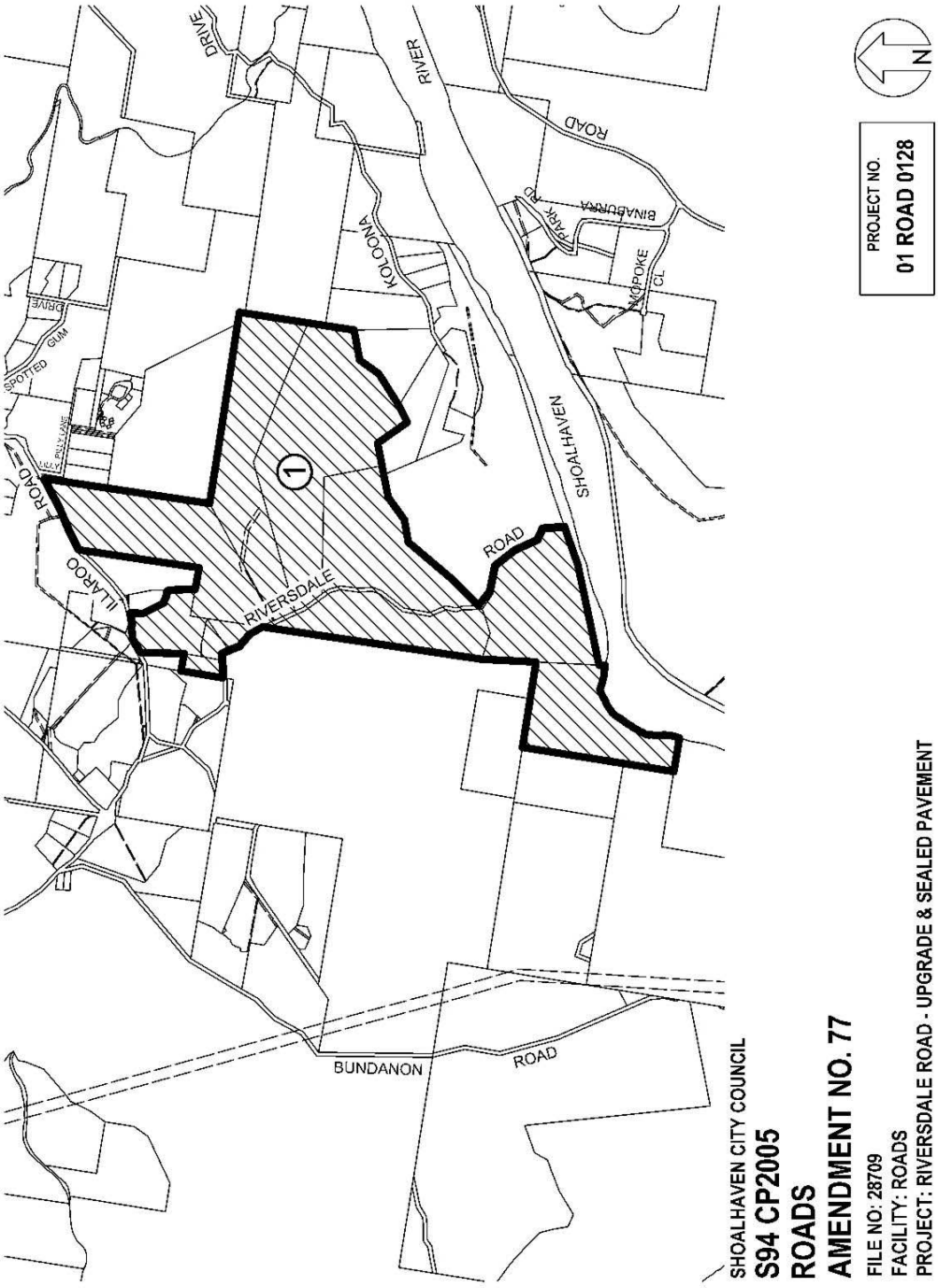
Appendix F - 01 ROAD 0126: Benefit Area Map



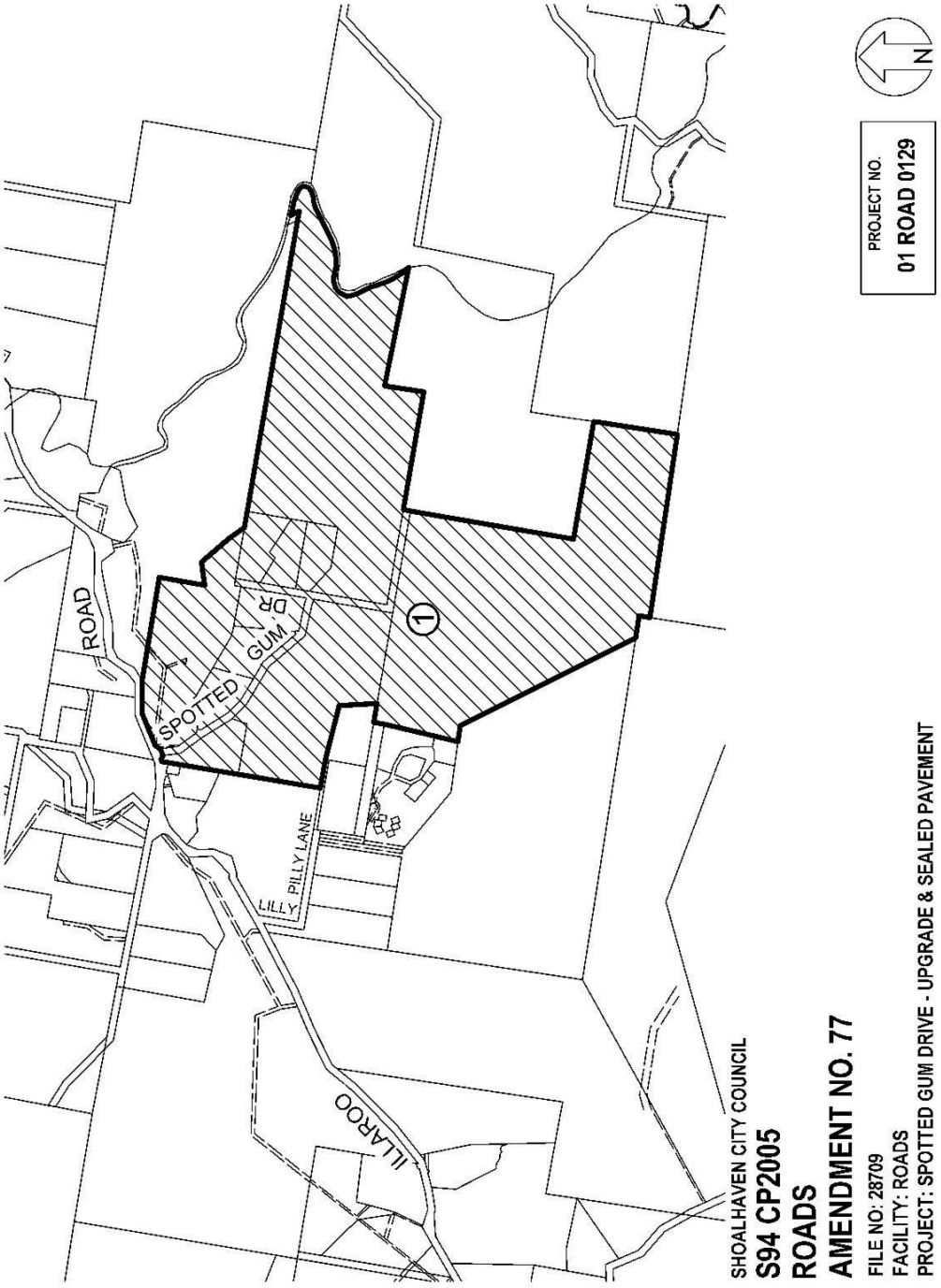
Appendix F - 01 ROAD 0127: Benefit Area Map



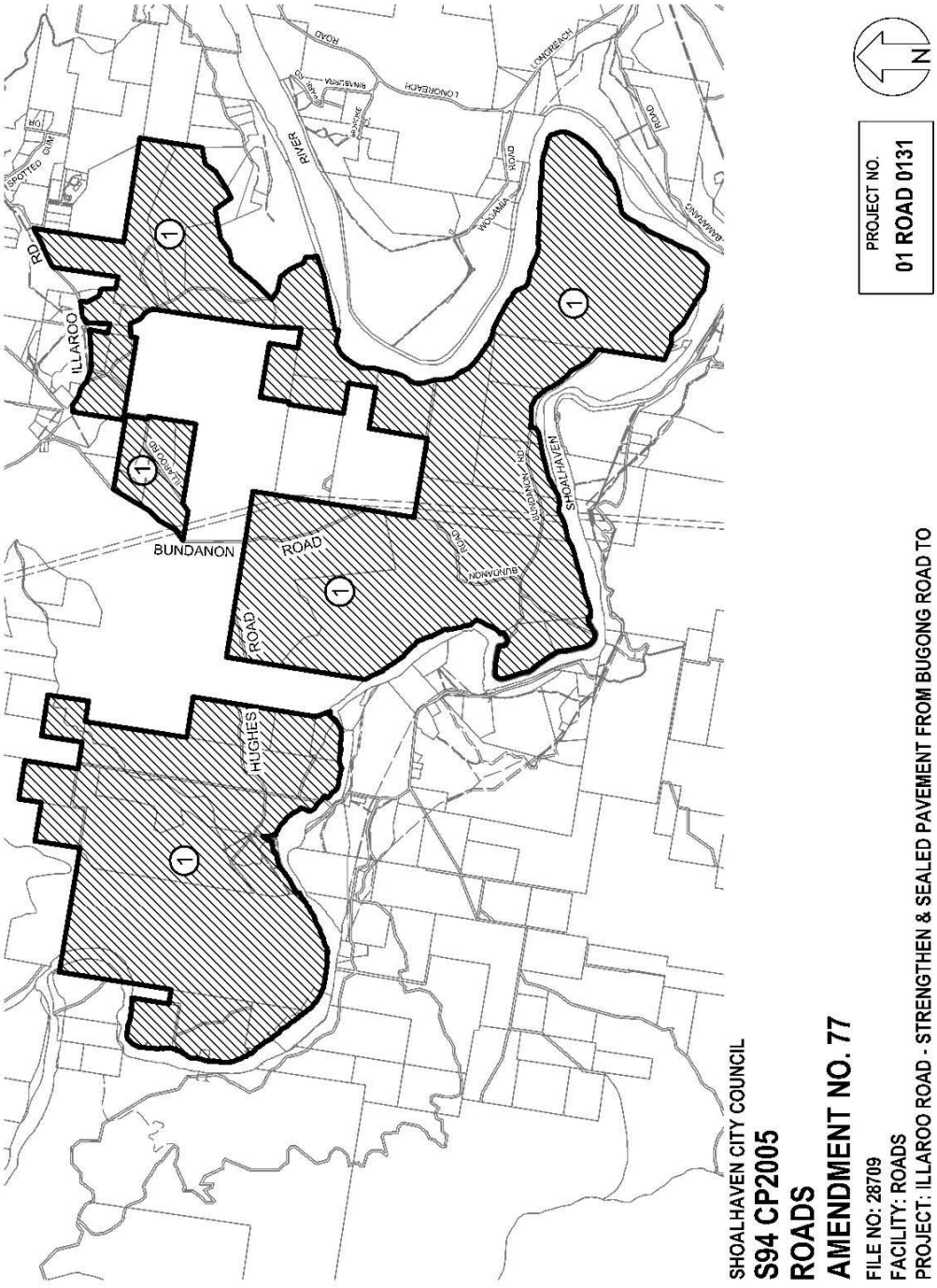
Appendix F - 01 ROAD 0128: Benefit Area Map



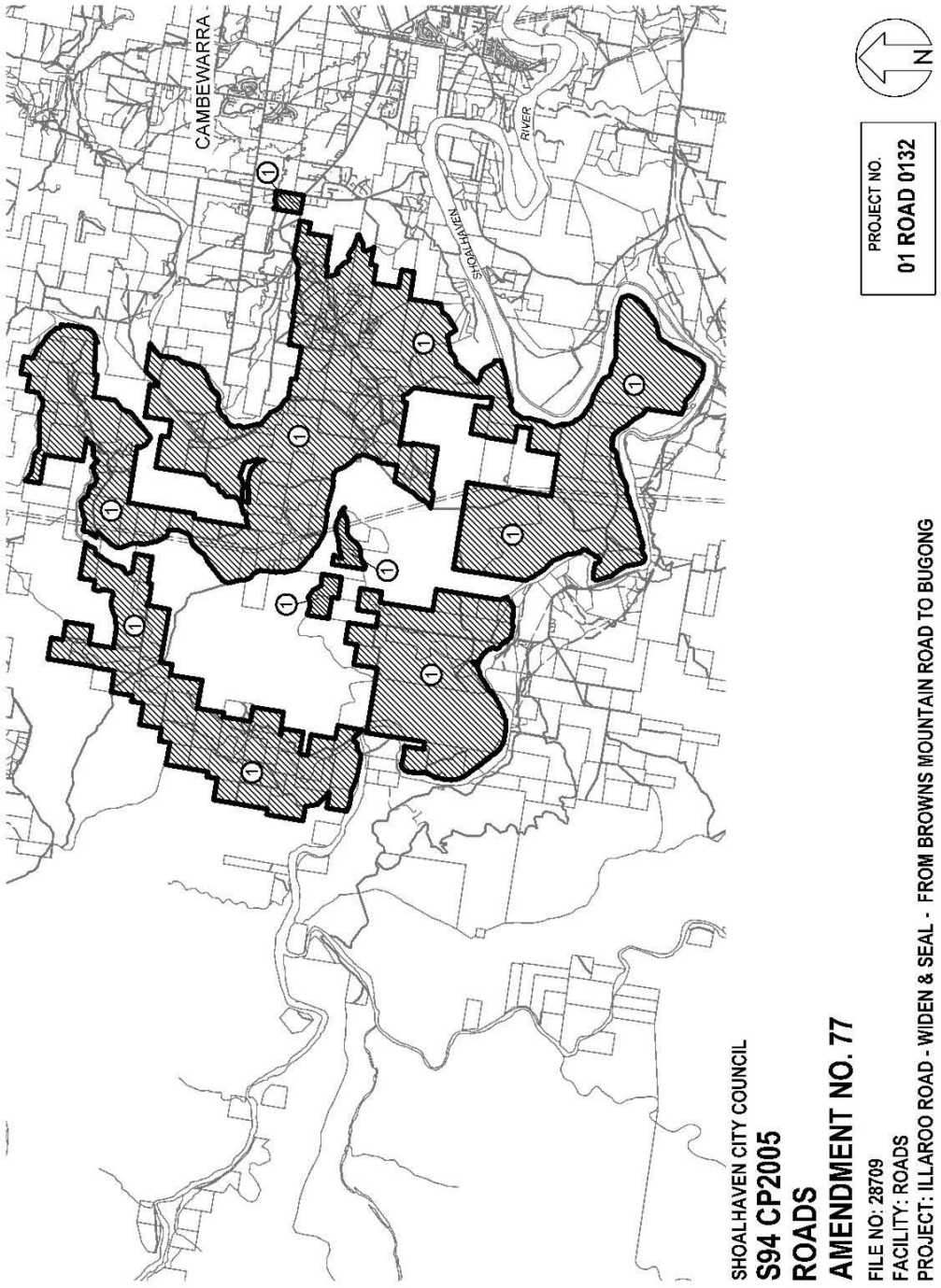
Appendix F - 01 ROAD 0129: Benefit Area Map



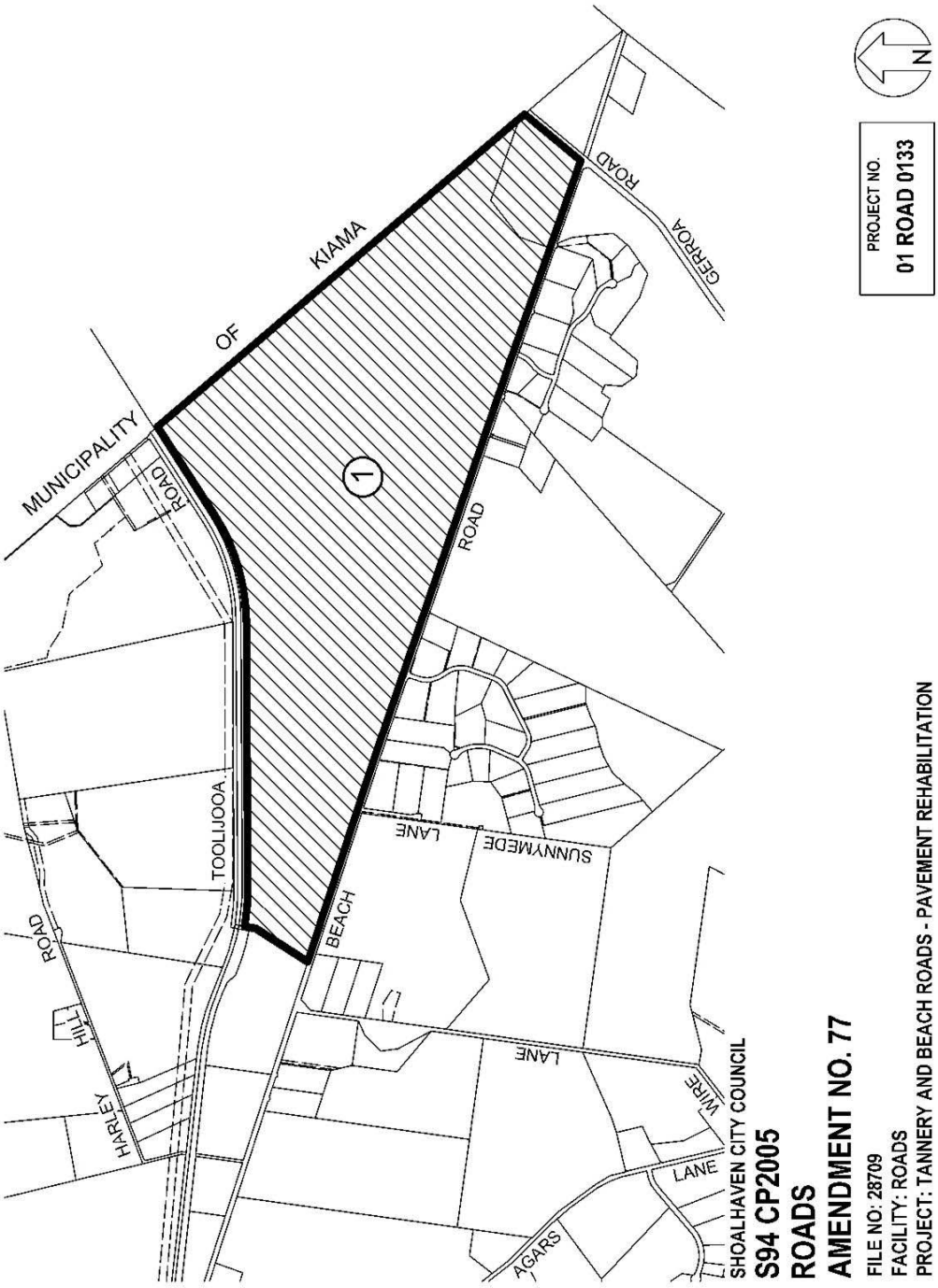
Appendix F - 01 ROAD 0131: Benefit Area Map



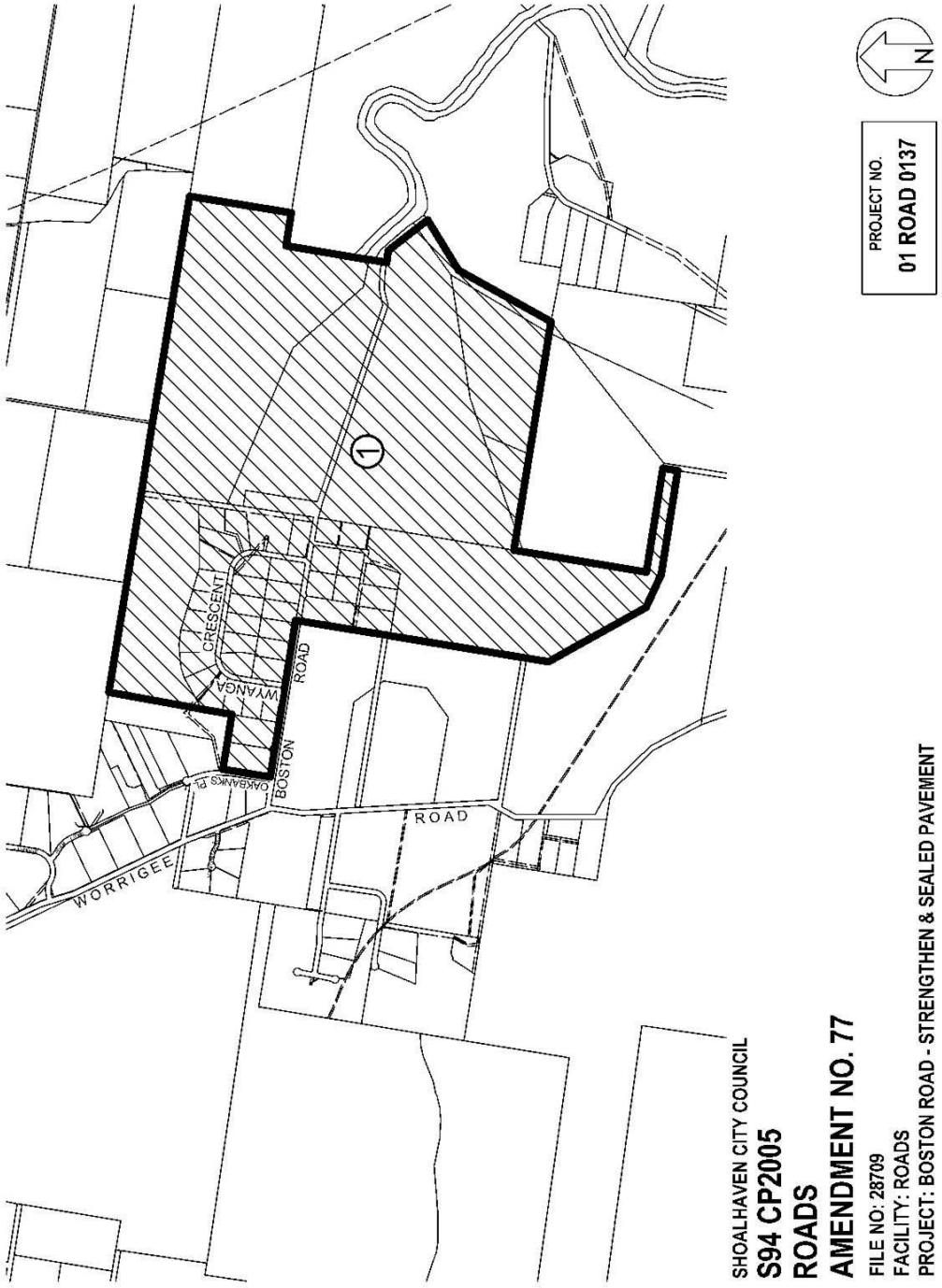
Appendix F - 01 ROAD 0132: Benefit Area Map



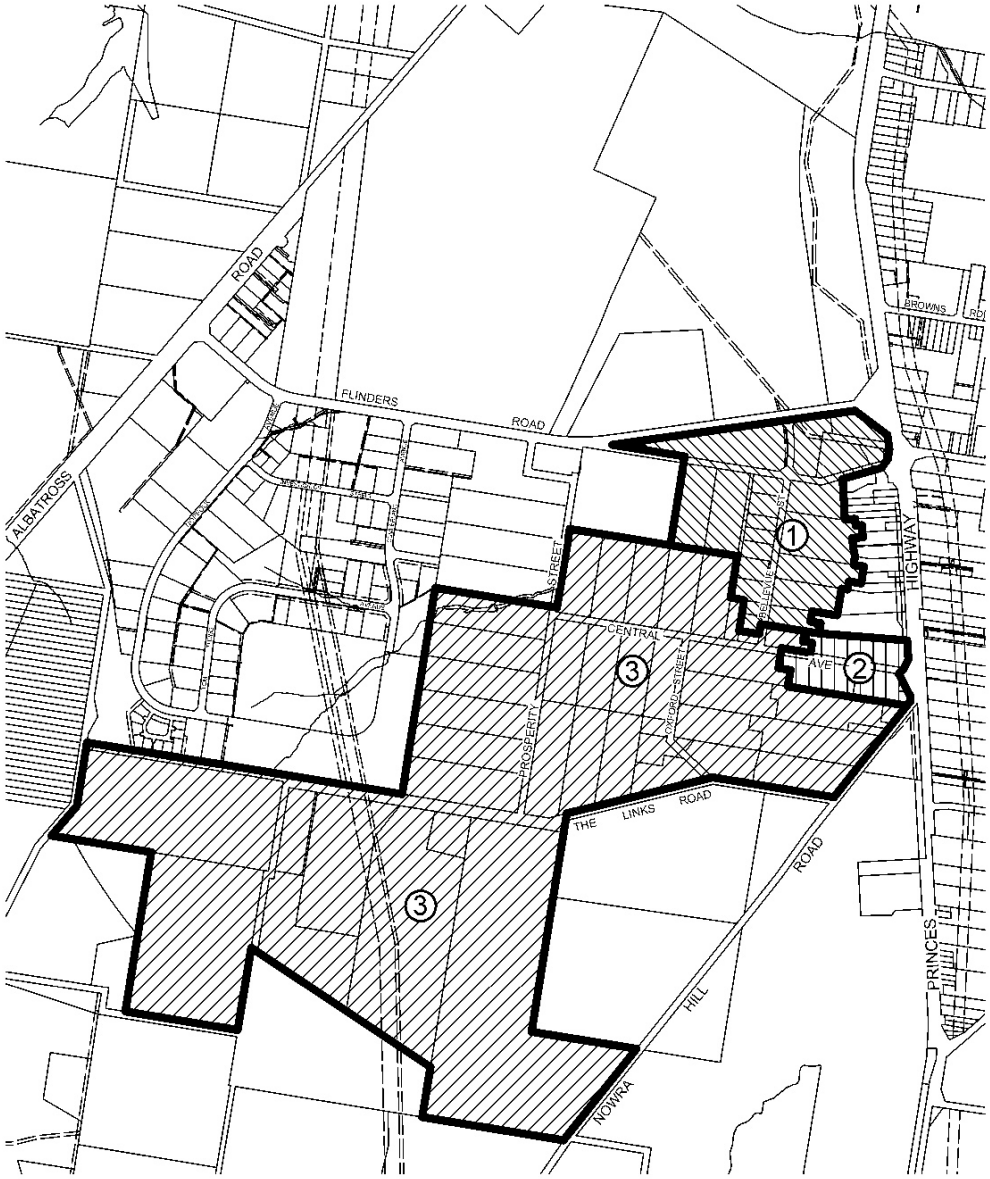
Appendix F - 01 ROAD 0133: Benefit Area Map



Appendix F - 01 ROAD 0137: Benefit Area Map



Appendix F - 01 ROAD 0141: Benefit Area Map



SHOALHAVEN CITY COUNCIL

S94 CP2005

ROADS

AMENDMENT NO. 77

FILE NO: 28709

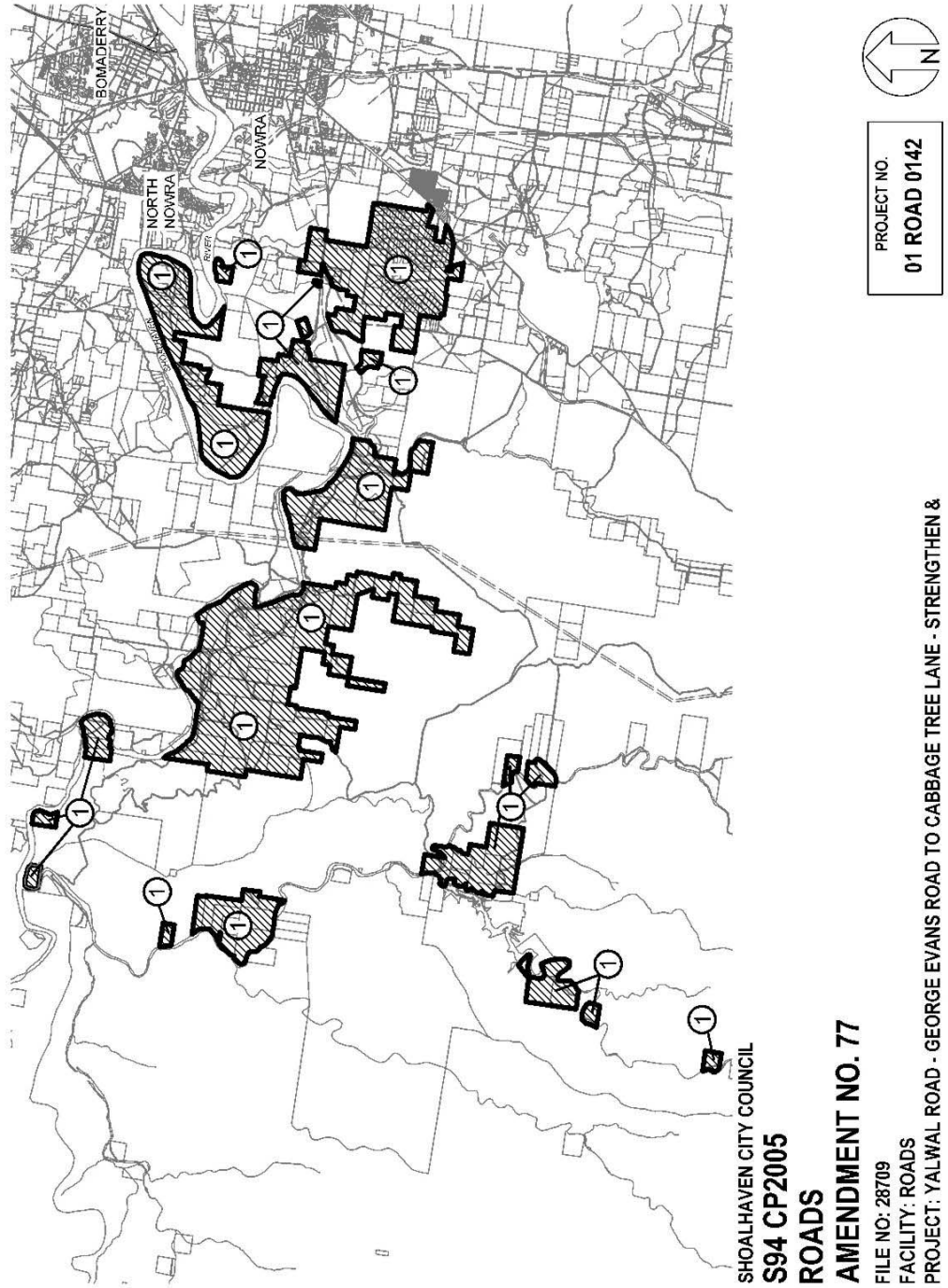
FACILITY: ROADS

PROJECT: PRINCES HIGHWAY/CENTRAL AVENUE ROUNDABOUT.

PROJECT NO.
01 ROAD 0141

N

Appendix F - 01 ROAD 0142: Benefit Area Map



Appendix F - 01 ROAD 0143: Benefit Area Map