MAROOCHY SHIRE COUNCIL PLANNING SCHEME
POLICY NO. DC3
ROADS INFRASTRUCTURE

DC 3.1 INTRODUCTION

(1) This Transitional Roads Infrastructure Policy identifies the process to apportion appropriate road network costs to future development, based on the estimated, average, weekday proportional usage of the Shire's trunk road network by individual developments at the milestone year 2021.

(2) This Policy will apply to all development across the Shire. Maroochy Plan Planning Areas and / or Precinct areas define the geographical boundaries of the charge areas, which have been aggregated into district level charge areas (refer to Table 1).

(3) Contributions will be sought from all assessable development within Maroochy Shire for:

a. Material Change of Use
b. Reconfiguration of a Lot

(4) This Policy will also form the basis for initial discussions for contributions under a development Voluntary Infrastructure Agreement.

DC 3.2 TRUNK NETWORK

(5) For the purpose of this Policy, the road network throughout the Shire has been defined as either 'trunk' or 'non-trunk'. Trunk roads are defined on DC 3 Map 1 Trunk Road Infrastructure (refer Appendix 1). Local Roads (non-trunk) have also been shown on Map 1, particularly in the rural areas where they form an important framework connecting smaller communities or provide access to the higher order network. Local Roads (non-trunk) are not however part of the trunk road network and have not been used in the calculation of the roads infrastructure unit rates or infrastructure contributions. By definition, all State-Controlled Roads are 'trunk' infrastructure, however these roads have not been used in the calculation of the roads infrastructure unit rates or infrastructure contributions.

NOTE DC 3.2 SIGNIFICANCE OF 'TRUNK' INFRASTRUCTURE

i) Where a road has been identified as a 'trunk' road, development conditions may not be applied by Council to upgrade that road other than for direct frontage improvements, impacting works where a development has a greater demand on the infrastructure than planned, and access works relating to the development.

ii) Where 'internal' road infrastructure is required to be provided as part of a development, it shall be generally in accordance with the guidelines outlined within relevant planning scheme codes and policies.

iii) For the purpose of clarity it is recorded that the Council is not responsible for the construction or the cost of any part of the internal road network of a development even though they may be later classified as a Collector or a higher-order road (and therefore may become 'trunk').

iv) Infrastructure contributions payable by a Developer pursuant to this Planning Scheme Policy are additional to the 'internal' infrastructure that the Developer is required to provide as part of a development.

(6) This Policy seeks contribution for the estimated proportional use by a development of Council-controlled 'trunk' roads based on:

a. the current replacement cost of the existing infrastructure, including the acquisition of land purchased by Council after 1990 for the purpose of constructing that infrastructure;
b. all associated costs of proposed upgrades to existing 'trunk' infrastructure including acquisition of land, relocation of services;
c. all associated costs of the construction of new 'trunk' infrastructure including acquisition of land, relocation of services, etc.

(7) The Programme of Works comprising the works listed under b. and c. above may also include Council's proportional liability to the upgrade or construction of State-Controlled infrastructure, e.g. the provision of ramps at new Sunshine Motorway interchanges, traffic control and improvements at intersections of Council Roads and State Controlled Roads.

DC 3.3 DESIRED STANDARD OF SERVICE AND DESIGN PARAMETERS FOR ROADS INFRASTRUCTURE

(8) The adoption of a minimum Desired Standard of Service provides a trigger to upgrade elements of the road network. The term Level of Service is more generally used in road design literature and is used interchangeably in the context of this Policy.

(9) The Level of Service for an element of a road system is defined as a qualitative measure describing operational conditions within the traffic stream. It attempts to emulate the perception by motorists and / or passengers of these operational conditions.

(10) A Level of Service definition generally links these conditions in terms of speed and travel time, freedom to manoeuvre, traffic interruptions, comfort and convenience and safety. In general there are six Levels of Service, designated from A to F, with Level A representing the best operating conditions (i.e. free flow) and Level F the worst (i.e. forced or breakdown flow).

(11) Level of Service D is close to the limit of stable flow and is approaching unstable flow. All drivers are severely restricted in their freedom to select their desired speed and to manoeuvre within the traffic stream. The general level of comfort and convenience is poor and small increases in traffic flow will generally cause operational problems.

(12) The desired Standard of Service for the various levels and type of road infrastructure is outlined in Table DC 3.3.1 in Appendix 2.

NOTE DC 3.3 DESIRED STANDARD OF SERVICE AND DESIGN PARAMETERS FOR ROADS INFRASTRUCTURE

1) Traffic demand varies by time of day, and seasonally throughout the year. What is a seasonal peak period in Buderim is different to the seasonal peak period in Mooloolaba. Hinterland traffic may peak on weekends throughout the year, but in Nambour the peak may be associated more closely with school start and finish times. In developing areas, demand growth will be very large over the next twenty years, whereas in some established residential areas, maximum development (and trip generation) has already been achieved.

2) Traffic modelling linking existing and future landuse to trip generation can provide estimates of traffic flows in incremental steps into the future. The Sunshine Coast Travel Forecasting Model (SCTFM) is a computer-based model for the whole of the Sunshine Coast developed by Maroochy Shire and the Department of Main Roads in collaboration with Noosa Shire and Caloundra City. The Model is used to predict Annual Average Weekday Daily Traffic (AAWDT) and AM and PM (2-hr) peak demands. Based on the calibration year 2000, predictions have been made for the milestone years 2006, 2011, 2016 and 2021.

3) Within urban areas, capacity at major intersections holds the key to maintaining reasonable standards of service. Travel demands have been cordoned from the SCTFM peak periods and seasonally factored to give design hour volumes at milestone years of 2016 and 2021. These demand volumes have then been used in a traffic simulation programme that reports those parameters that can be linked to Level of Service, e.g. average delay, vehicles per hour; or those elements of design, e.g. signal phasing, queue lengths for auxiliary lane design, etc.

4) It is acknowledged that in some cases, due to localised circumstances, the desired standard of service may not be met. In these situations, roads infrastructure aims to meet the standards to the greatest degree practicable.

DC 3.4 ESTIMATED COST OF ROADS INFRASTRUCTURE

(13) The current estimated costs for roads infrastructure is outlined in Table DC 3.4.1 —

Table DC 3.4.1: Roads Infrastructure Costs to 2021

Type of Works	Existing network	Securement	Embellishment
Trunk Roads Infrastructure	**$229,587,000**	**81,318,000**	**$191,691,000**

DC 3.5 PROPORTION OF ROADS INFRASTRUCTURE ESTABLISHMENT COSTS TO BE FUNDED BY INFRASTRUCTURE CONTRIBUTIONS

(14) The proportion of Roads infrastructure costs attributable to infrastructure contributions is outlined in Table DC 3.5.1.

Table DC 3.5.1 Proportion of Roads Infrastructure Costs Subject to Infrastructure contributions ($)

LEVEL OF WORKS	Costs not subject to Infrastructure Contributions	Costs subject to Infrastructure contributions
Trunk Roads Infrastructure	**$335,603,000**	**$166,993,000**

DC 3.6 INFRASTRUCTURE CONTRIBUTIONS AND CALCULATIONS

(15) Those areas of the Shire and the type of development applications subject to roads infrastructure contributions together with the method of calculating the contribution is outlined in Schedule DC 3.

DC 3.7 PROGRAM OF ROAD NETWORK IMPROVEMENTS

(16) Works included in the current Programme have been previously endorsed by Council as part of a Planning Report for the road link or associated area, e.g. Policy DC3 for Maroochydore, Mooloolaba Integrated Landuse and Transport Study (ILTS), Sunshine Motorway Planning Study 2032 (DMR), Coolum Integrated Land Use & Transport Study.

(17) The preliminary design of works is assisted by the use of traffic simulation computer packages. Layouts are prepared in almost all cases without detailed field survey, generally as overlays over aerial photography. Standardised costing rates are used for both new construction and the replacement value.

(18) The works in the Programme will be funded jointly by contributions from development and Council's Capital Works Funding. Further funds may be forthcoming from the State as part of an infrastructure agreement, e.g. the construction of the Maroochy Boulevard / Sunshine Motorway Interchange. The programming of works may be impacted or contingent upon other works not included in the Programme, such as major upgrades of the State-Controlled network, or major landuse redevelopment. From time to time the Programme will be reviewed to reflect changing fiscal circumstances or network priorities.

NOTE DC 3.7 PROGRAM OF ROAD NETWORK IMPROVEMENTS

1) Currently, the Program includes works for Coolum, Maroochydore, Mooloolaba and Sippy Downs (Claymore Road/Dixon Road/Power Road/Upgrade of Sippy Downs Drive)

2) Further works will be included for Nambour/Woombye/Palmwoods (a joint study with DMR) after a report has been submitted and endorsed by Council.

SCHEDULE DC3: ROAD INFRASTRUCTURE CONTRIBUTIONS SCHEDULE

AREAS WHERE INFRASTRUCTURE CONTRIBUTIONS SHALL APPLY

(1) All areas of the Shire (which have been aggregated into District Charge Areas) are subject to a Roads Infrastructure contribution (refer to Table 1).

Table 1: Charge Areas – Planning Area / Precinct equivalents

CHARGE AREA DISTRICTS		PLANNING AREA / PRECINCT *
1.	South East Maroochy - Urban (SEM)	1. Maroochydore 3. Sippy Downs 4. Mooloolaba 5. Mountain Creek 6. Buderim 7. Alexandra Headland / Cotton Tree 8. Kuluin / Kunda Park
2.	Other Urban	2. Nambour 9. North Shore 10. Mt Coolum 11. Coolum Beach 12. South Peregian 13. Bli Bli
3.	Towns	14. Palmwoods 15. Woombye 16. Yandina 17. Eumundi 19. Blackall Range (precincts 2, 3, 16 & 17)
4.	Rural	18. Kenilworth 19. Blackall Range (all precincts other than 2, 3, 16 & 17) 20. Mountain Creek Valley 21. Eudlo Creek Valley 22. Petrie / Paynters Creek Plains 23. Maroochy River Plains 24. Yandina Creek Valley 25. Northern Coastal Plains 26. Northern Hinterland 27. Central Hinterland 28. Southern Hinterland 29. Obi Obi Creek Valley 30. Mary River Valley

* From Maroochy Plan, Volume 3

APPLICATION OF CONTRIBUTION

(2) Subject to clause (2A), Roads infrastructure contributions apply to every development application that involves –

(a) Reconfiguring a lot; or
(b) A material change of use.

(2A) The following uses are exempt from paying roads infrastructure contributions –

(a) all uses defined within the 'Rural Uses' category as defined in the Planning Scheme (excluding 'rural service industry' and 'winery');
(b) uses defined as 'car park' or 'home-based business' (provided equivalent demand for a detached house is not exceeded);
(c) A material change of use for a detached house; or
(d) Non-Complying Self- Assessable Development as defined in Planning Scheme Policy DCA-Administration).

DETERMINATION OF ROADS INFRASTRUCTURE CHARGE UNIT RATES

(3) The Roads Infrastructure Unit Rates for the purposes of calculating Roads Infrastructure Contributions is to be determined for each planning area as set out in Table 2.

(4) The Roads Infrastructure Unit rate has been calculated as follows –

For each 'trunk' link a 'usage cost' is determined from the estimated daily traffic volume (on the link) at the year 2021.

i.e. Replacement Cost or Capital Cost
Total Daily Trip Ends @ year 2021
= 'Usage Cost' (cost per trip end)

The estimated daily traffic volume is distributed to each of the charge areas **and** external areas using the strategic transport model SCTFM. Each charge area daily volume (for the link) is multiplied by the 'usage cost' to determine a 'charge area link cost'.

A 'charge area net cost' is determined by summing the respective 'charge area link cost' for all trunk links under Maroochy Shire control.

The 'charge unit rate' is then determined by dividing the 'charge area net cost' by the total trip generation for a 'charge area'.

DETERMINATION AND CALCULATION OF ROADS INFRASTRUCTURE CONTRIBUTIONS

(5) The Roads infrastructure contribution for any proposed development is to be calculated as follows –

[(A – B) – C] x D x E

Where

A (being proposed demand) is –

i. For reconfiguring a lot the roads demand factor for the Land or lots (excluding any Dedicated Lots) included in the development application based on the method creating the higher level of demand calculated using the rates outlined in Table 3 and Table 4 or Table 5.
ii. For a material change of use the roads demand factor for the use of Land included in the development application based on the method creating the higher level of demand calculated using the rates outlined in Table 3 and Table 4 or Table 5.
iii. For a material change of use where an existing building or existing work is proposed to be changed or extended or a new building or work is proposed to be erected on land occupied by an existing use the road demand factor for the use included in the development application calculated using the rates outlined in Table 4 or Table 5.

B (being existing use demand entitlements) is –

i. For vacant land, the roads demand factor allowed for a single detached house or where previous infrastructure contributions have been paid to Council the demand on which the previous contributions were based.[1]
ii. Otherwise, the existing use demand entitlement.[2]

C Is any applicable infrastructure credit for the land (granted as a result of providing advanced funding for the construction of trunk infrastructure or contributing trunk infrastructure) as outlined in the Register of Infrastructure Contributions and Credits.

D Is the applicable Roads Infrastructure unit rate as outlined in Table 2 for the Planning Area in which the land is situated.

E Is the applicable Roads Infrastructure unit charge at the date of payment (refer to Section 3.5 Infrastructure Unit Charges in Planning Scheme Policy DCA - Administration for details of the Roads infrastructure unit charge currently in force).

NOTE 1 SCHEDULE DC 3

UNIT CHARGES

(1) For convenience, the infrastructure unit charge for roads infrastructure is contained in the Local Government's Scale of Fees and Charges.

[1] The onus is upon the applicant to provide evidence of any previous infrastructure contributions paid to Council.

[2] Refer to Division 10 – Glossary of Terms in Planning Scheme Policy DCA – Administration for an explanation of the term "existing use demand entitlement".

NOTE 2 SCHEDULE DC 3

EXAMPLES

(1) (a) It is proposed to reconfigure 3 hectares of land at Coolum Beach on the boundaries of Precincts 4 and 9 into:

(A) 1 lot (8000m^2) for future unspecified shops;

(B) 1 lot (5000m^2) for future house sites (unspecified number of lots) and

(C) 19 residential lots on 1.7 hectares comprising 15 traditional house lots and 4 courtyard lots.

(b) No previous roads contributions were paid nor is the land subject to infrastructure credits.

(c) The roads infrastructure demand for the proposed development using the rates outlined in Table 3 and Table 4 is as follows —

A	**B**	**C**
8000 m^2 As this proposed lot is a 'Management Lot' the road network demand factor is equivalent to a single detached house – refer Table 3 or Table 4	5000 m^2 As this proposed lot is a 'Management Lot' the road network demand factor is equivalent to a single detached house – refer Table 3 or Table 4	1.7 ha As there is a 'residential lot' proposal for the land use both Table 3 and Table 4 to determine the demand factor and choose whichever Table calculates the highest demand factor (i.e. cu)
The demand for a single detached house (where situated in the South East Maroochy – Urban (SEM) and other Urban Districts) = 7.5 cu ✓	The demand for a single detached house (where situated in the South East Maroochy – Urban (SEM) and other Urban Districts) = 7.5 cu ✓	75 cu/ha x 1.7 ha = 127.5 cu ✗ OR 15 trad. lots x 7.5 cu = 112.5 cu 4 c'yard lots x 7.5 cu = 30 cu = 142.5 cu ✓

(d) The roads infrastructure demand for the development (A) = 157.5 cu

(e) As the land is not subject to infrastructure credits nor the subject of previous roads contributions the existing demand is that allowed for a single detached house (refer to 'B' in the calculation formula).

(f) The demand for a single detached house is 7.5 cu (from Table 4).

B = 7.5 cu

(g) The increase in demand is A – B = 150 cu

(h) The infrastructure contribution is —

150 x 294 (from Table 2 - Planning Area Coolum Beach)
44,100 x $1.0762 (Infrastructure Unit Charge)

= $47,460.42

(2) (a) It is proposed to extend by 500m^2 an existing 1000m^2 shopping centre at Kuluin / Kunda Park within the 'Local Centre' Precinct.

(b) As this is an extension to an existing use infrastructure contributions only apply to the proposed extension.

(c) No previous roads contributions were paid nor is the land subject to infrastructure credits.

(d) The roads infrastructure demand for the proposed development using the rates outlined in Table 5 is as follows –

Use Table 5 (Defined Commercial Uses) to determine the demand factor for a 'Shopping Complex' in the Local Centre Precinct

$$\frac{1500m^2 \times 22.5 \text{ cu}}{100m^2}$$

$$= 337.5 \text{ cu} \quad \checkmark$$

(e) The roads demand for the development (A) = 337.5 cu

(f) The existing roads infrastructure demand for the shopping centre is as follows —

$$\frac{1000m^2}{100m^2} \times 22.5 \text{ cu} \qquad B = 225 \text{ cu}$$

(g) The increase in infrastructure demand is A – B which equals 112.5 cu

(h) The infrastructure contribution is –

112.5 x 376 (from Table 2 - Planning Area Kuluin/Kunda Park)
42,300 x $1.0762 (Infrastructure Unit Charge)

= $45,523.26

(3) (a) It is proposed to extend by 200m^2 an existing 440m^2 shop at Maroochydore within the 'Town Centre Frame' Precinct.

(b) As this is an extension to an existing use infrastructure contributions only apply to the proposed extension.

(c) Previous contributions of $49,497.60 were paid for the existing shop

(d) The roads infrastructure demand for the proposed development using the rates outlined in Table 5 is as follows -

Use Table 5 (Defined Commercial Uses) to determine the demand factor for 'Shops' in the Town Centre Frame Precinct

$$\frac{640m^2}{100m^2} \times 55 \text{ cu}$$

$$= 352 \text{ cu}$$

(e) The roads infrastructure demand for the development (A) = 352 cu.

(f) The existing cu demand is to be equal to the cu on which the previous payment was determined. It was ascertained that the previous payment related to a charge based on the net increase in PM Peak Hour Trips (i.e. 23.1 – 3.9 = 19.2 modified PM Peak Trips). Whilst the charge related to 19.2 trips the actual demand of the existing shopping centre was 23.1 (the then existing detached house and car sales yard reduced the charge by 3.9 trips). Consequently, the existing use demand factor is 23.1 modified PM Peak Trips and for the purpose of this policy, 1 modified PM Peak Trip equals 10 cu (refer Planning Scheme Policy DCA – Administration Section 10.1(1)q). Therefore, the existing use demand factor is 231 cu.

(g) The increase in infrastructure demand is A – B which equals 121 cu.

(h) The infrastructure contribution is –

121 x 376	(from Table 2 - Planning Area Maroochydore)
45,496 x $1.0762	(Infrastructure Unit Charge)

= $48,962.80

(4) (a) It is proposed to demolish an existing fabrication industry workshop (2000m^2 GFA) to construct a 2500m^2 shopping centre at Kunda Park.

(b) The land is 8000m^2 within the 'Local Centre' Precinct.

(c) No previous roads contributions were paid nor is the land subject to infrastructure credits.

(d) The roads infrastructure demand for the proposed development using the rates outlined in Table 3 and Table 5 is as follows —

Use both Table 3 and Table 5 to determine the demand factor and choose whichever Table calculates the highest demand factor (i.e cu). As Table 3 does not have a demand factor rate for the Local Centre Precinct only Table 5 applies.

Using Table 5, the demand for a 'shopping complex' is:

$$\frac{2500m^2}{100m^2} \times 22.5 \text{ cu}$$

= 562.5 cu

(e) The roads demand for the development (A) = 562.5 cu.

(f) The existing roads infrastructure demand for the fabrication industry ('General Industry' – refer Table 4) is as follows —

$$\frac{2000\ m^2}{100\ m^2} \times 5 \text{ cu} \qquad B = 100 \text{ cu}$$

(g) The increase in infrastructure demand is A – B which equals 462.5 cu.

(h) The infrastructure contribution is —

462.5 x 376 (from Table 2 - Planning Area Kuluin/Kunda Park)
173,900 x $1.0762 (Infrastructure Unit Charge)

= $187,151.18

(5) (a) It is proposed to demolish existing shops (2000m^2 GFA) and construct 120 two bedroom dwelling units and 1000m^2 shops at Maroochydore.

(b) The land is 8000 m^2 within the 'Multi-storey Residential' Precinct.

(c) No previous roads contributions were paid nor is the land subject to infrastructure credits.

(d) The roads infrastructure demand for the proposed development using the rates outlined in Table 3 and Table 4 or Table 5 is as follows –

Use Table 3, Table 4 and Table 5 to determine the demand factor and choose whichever Table calculates the highest demand factor (i.e.cu)

Using Table 3, the demand is:

$$\frac{280 \text{ cu} \times 8000 \text{ m}^2}{10{,}000 \text{ m}^2}$$

= 224 cu ✘

Using Table 4 and Table 5, the demand for 'Multiple Dwelling Units' (2bedroom/unit) and 'Shops' is:

Residential Demand (Table 4):

120 units x 3.393/du = 407.16 cu ✓

Commercial Demand (Table 5):

$$\frac{1000 \text{ m}^2}{100 \text{ m}^2} \times 60 \text{ cu} = 600 \text{ cu}$$ ✓

Total Demand = 1007.16 cu ✓

(e) The roads demand for the development (A) = 1007.16 cu

(f) The existing roads infrastructure demand for the shops is as follows –

$$\frac{2000 \text{ m}^2}{100 \text{m}^2} \times 60 \text{ cu}$$ B = 1200 cu

(g) The increase in infrastructure demand is A – B which equals (-192.84).

(h) As there is no increase in roads demand (in fact the proposed demand is less than the existing use) there is no roads infrastructure contribution.

(i) In this example an infrastructure credit of 192.84 cu would accrue to the land.

Notes:

cu	=	chargeable unit
du	=	dwelling unit
GFA	=	Gross Floor Area
ha	=	hectare

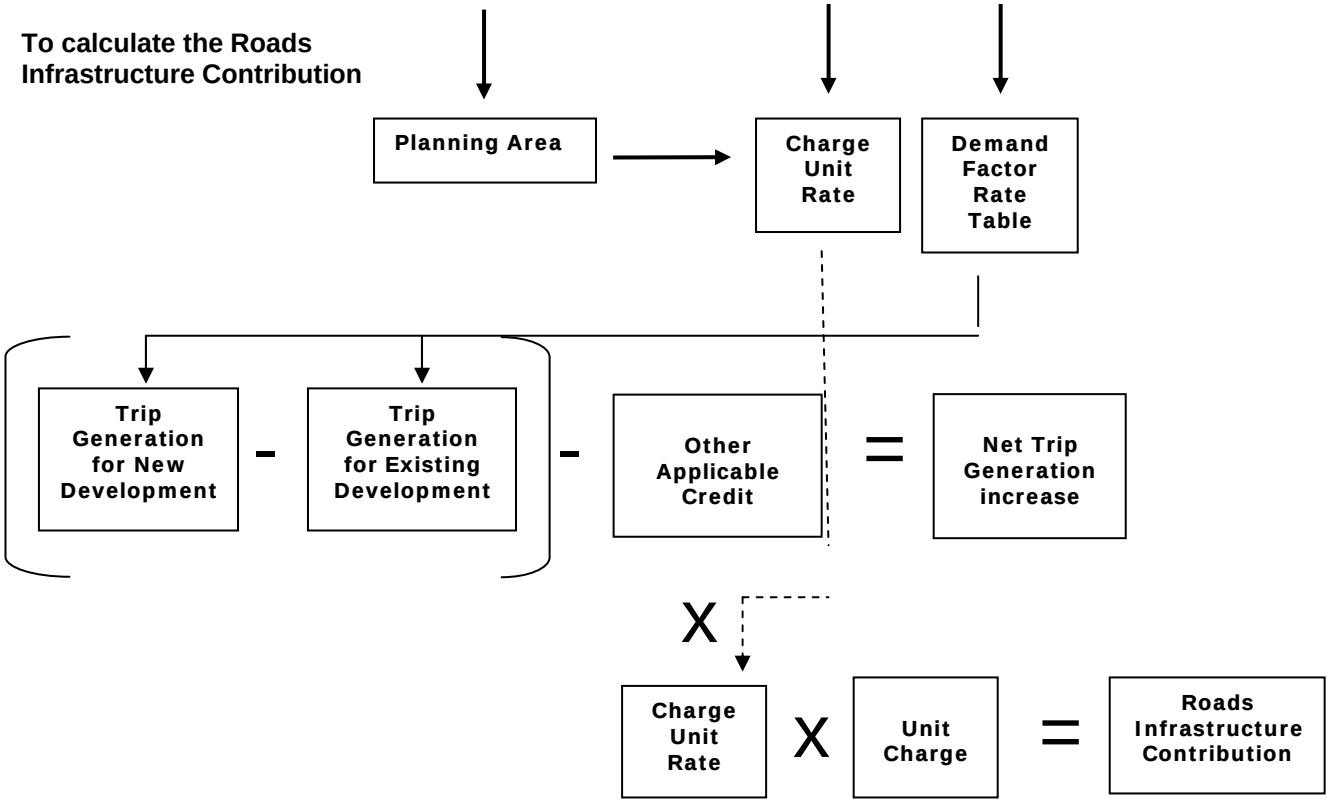
Schedule of Infrastructure Charge Unit Rates

(6) The Roads Infrastructure charge unit rates for the Charge Area Districts or Planning Areas outlined in Volume 3 of this Planning Scheme are shown in Table 2.

Table 2: Charge Unit Rates

CHARGE AREA DISTRICTS		PLANNING AREA	CHARGE UNIT RATE	DEMAND RATES
1.	South East Maroochy – Urban (SEM)	1. Maroochydore 3. Sippy Downs 4. Mooloolaba 5. Mountain Creek 6. Buderim 7. Alexandra Headland / Cotton Tree 8. Kuluin / Kunda Park	376	See Table 3 & Table 4 or Table 5
2.	Other Urban	2. Nambour 9. North Shore 10. Mt Coolum 11. Coolum Beach 12. South Peregian 13. Bli Bli	294	
3.	Towns	14. Palmwoods 15. Woombye 16. Yandina 17. Eumundi 19. Blackall Range (Precincts 2, 3, 16 & 17)	443	See Table 3 & Table 4 or Table 5
4.	Rural	18. Kenilworth 19. Blackall Range (all precincts other than 2, 3, 16 & 17) 20. Mountain Creek Valley 21. Eudlo Creek Valley 22. Petrie / Payntera Creek Plains 23. Maroochy River Plains 24. Yandina Creek Valley 25. Northern Coastal Plains 26. Northern Hinterland 27. Central Hinterland 28. Southern Hinterland 29. Obi Obi Creek Valley 30. Mary River Valley	639	See Table 3 & Table 4 or Table 5

To calculate the Roads Infrastructure Contribution



Road Network Demand Factor Rates

(7) The road network demand factor rates for the various precinct classes within each Charge Area District outlined in Table 1 of this Infrastructure Contribution Policy are shown in Table 3.

(8) The road network demand factor rates for the various uses outlined in Section 3.3 (Use Definitions) Volume 1 of this Planning Scheme are shown in Table 4 or Table 5.

(9) Where calculating the proposed demand requires the use of Table 3 and Table 4 or Table 5 for determining the road network demand factor rate, the table that calculates the highest demand factor rate is to be used as the road network demand factor.

Table 3 Road Network Demand Factor Rates for Precinct Classes

Precinct	Charge Area District	Road Network Demand Factor*
Business and Industry	South East Maroochy-Urban (SEM), Other Urban and Towns Districts	405cu/ha
	Rural District	225cu/ha
Core Industry	All Districts	225cu/ha
General Rural Lands	All Districts	N/A
Hillslope Residential	South East Maroochy – Urban (SEM) and other Urban Districts	60 cu/ha
	Towns District	68 cu/ha
	Rural District	76 cu/ha
Local Centre	All Districts	N/A
Master Planned Community	South East Maroochy-Urban (SEM) and Other Urban Districts	150 cu/ha (Detached Housing Only) or use the precinct or precincts from this table that most closely align with the proposed development
Mixed Housing	South East Maroochy-Urban (SEM) and Other Urban Districts	200 cu/ha
	Towns District	280 cu/ha
Multi-Storey Residential	South East Maroochy-Urban (SEM) and other Urban Districts	280 cu/ha
Neighbourhood Residential	South East Maroochy-Urban (SEM) and Other Urban Districts	75 cu/ha
	Towns District	85 cu/ha
	Rural District	95 cu/ha
Special Purpose	All Districts	Use the precinct or precincts from this table that most closely align with the proposed development
Sustainable Cane Lands Sustainable Horticultural Lands Sustainable Pastoral Lands	All Districts	N/A
Sustainable Rural Residential	All Districts	12 cu/ha
Town Centre Core	South East Maroochy-Urban (SEM): All Maroochydore Precincts	788 cu/ha (Residential)
	Other Urban Districts: All Nambour Precincts	40 cu/ha (Residential)
	South East Maroochy – Urban (SEM): All Sippy Downs Precincts	120 cu/ha (Residential)

Precinct	Charge Area District	Road Network Demand Factor*
	South East Maroochy – Urban (SEM): All Mooloolaba Precincts	252 cu/ha (Residential)
Town Centre Frame	South East Maroochy – Urban (SEM): All Maroochydore and Mooloolaba Precincts	210 cu/ha (Residential)
	Other Urban Districts: All Nambour Precincts	40 cu/ha (Residential)
	South East Maroochy – Urban (SEM): All Sippy Downs Precincts	70 cu/ha (Residential)
Village Centre	All Districts	N/A
Water Resource Catchment Area	Rural District	N/A

* For a 'Management Lot' the Road Network Demand Factor is 7.5cu/Lot (where situated in the South East Maroochy – Urban (SEM) and Other Urban Districts), 8.5cu/Lot (where situated in the Towns District) or 9.5cu/Lot (where situated in the Rural District).

Notes:

cu = chargeable Unit
du = dwelling Unit
ha = hectare
GFA = Gross Floor Area

Table 4: Road Network Demand Factor Rates for Defined Uses

Defined Uses and Use Classes	Assessment Unit	Roads cu/Unit*
RESIDENTIAL USES		
Accommodation Building	Bed	1.538(1), 2.325(2)
Bed and Breakfast	Lettable Room	1.154(1), 1.725(2)
Caravan Park	Caravan Site	3.393(1),4.35(2)
	Relocatable home site	3.393(1),4.35(2)
Caretakers Residence	1 bedroom	2.589(1),3.375(2)
	2 bedroom	3.393(1),4.35(2)
	3 or more bedrooms	5.0(1),6.45(2)
Detached House	Lot	7.5 (3), 8.5(4), 9.5(5)
Display Home	As per detached house or dual occupancy or multiple dwelling units, depending on nature of development	
Dual Occupancy	1 bedroom	2.589(1),3.375(2)
	2 bedroom	3.393(1),4.35(2)
	3 or more bedrooms	5.0(1),6.45(2)
Home-Based Business	Lot	Exempt, provided equivalent demand for a detached house is not exceeded, otherwise to be assessed on use
Institutional Residence	Bed	0.385(1),0.60(2)
Integrated Tourist Facility	Bed	1.538(1),2.325(2)
	For permanent residential accommodation as per detached house or dual occupancy or multiple dwelling units, depending on nature of development.	
Motel (includes hotel accommodation)	Per unit	2.589(1),3.375(2)
Multiple Dwelling Units	1 bedroom	2.589(1),3.375(2)
	2 bedroom	3.393(1),4.35(2)
	3 or more bedrooms	5.0(1),6.45(2)
Residential Care Facility	Per self contained dwg	1.538(1),2.325(2)
	Per hostel unit	0.769(1),1.125(2)
	Per nursing care bed	0.385(1),0.60(2)

Defined Uses and Use Classes		Assessment Unit	Roads cu/Unit*
Retirement Village		1 bedroom	2.589[(1)],3.375[(2)]
		2 bedroom	3.393[(1)],4.35[(2)]
		3 or more bedrooms	5.0[(1)],6.45[(2)]
RURAL USES			
Agriculture, Animal Keeping, Animal Husbandry, Aquaculture, Forestry, Intensive Animal Husbandry, Roadside stall, Stables			Exempt
Rural Service Industry			As determined by Council
Winery			As determined by Council
COMMERCIAL USES			
Adult Product Shop		Per 100m^2 (GFA)	Refer table 5
Art & Craft Centre		Per 100m^2 (GFA)	Refer table 5
Convenience Restaurant		Per 100m^2 (GFA)	Refer table 5
Fast Food Store		Per 100m^2 (GFA)	Refer table 5
Funeral Parlour		Per 100m^2 (GFA)	Refer table 5
Garden Centre		Per 100m^2 (GFA)	Refer table 5
Hotel		Per 100m^2 (GFA)	Refer table 5
Market		As determined by Council	
Medical Centre		Per 100m^2 (GFA)	Refer table 5
Office		Per 100m^2 (GFA)	Refer table 5
Restaurant		Per 100m^2 (GFA)	Refer table 5
Shop (including General Store)		Per 100m^2 (GFA)	Refer table 5
Shopping Complex		Per 100m^2 (GFA)	Refer table 5
Showroom		Per 100m^2 (GFA)	Refer table 5
Veterinary Clinic		Per 100m^2 (GFA)	Refer table 5
INDUSTRIAL USES			
Car Washing Station		Per wash bay	5.0
Environmentally Assessable Industry		Per 100m^2 (GFA)	5.0
Extractive Industry			As determined by Council
General Industry		Per 100m^2 (GFA)	5.0
Landscape Supplies			As determined by Council
Light Industry	Laundromat	Per 100m^2 (GFA)	40.0
	Hot bread kitchen/retail bakery	Per 100m^2 (GFA)	25.0
	All other uses	Per 100m^2 (GFA)	12.0
Sales or Hire Yard		As determined by Council	
Service Station		Per lot	8/pump + 12/100m^2 (GFA) Service Bays + 8/100m^2 (GFA) Shop
Storage Yard		As determined by Council	
Transport Station		As determined by Council	
Vehicle Depot		As determined by Council	
Vehicle Repair workshop		Per 100m^2 (GFA)	12
Warehouse		Per 100m^2 (GFA)	5
OTHER USES			
COMMUNITY USE	Child Care Centre	Staff/pupil	2.2
	Local Utility		As determined by Council
	Major Utility		As determined by Council
	Telecommunications Facility		As determined by Council
SPECIAL USE	Cemetery		As determined by Council
	Church	Per 100m^2 (GFA)	3.6
	Community Meeting Hall	Per 100m^2 (GFA)	As determined by Council
	Crematorium	Per 100m^2 (GFA)	10.3
	Educational Establishment	Per enrolment	1.8
	Emergency Services		As determined by Council
	Hospital	Per 100m^2 (GFA)	10.4

Defined Uses and Use Classes			Assessment Unit	Roads cu/Unit*
RECREAT–IONAL USES	INDOOR RECREATION	Amusement Centres	per 100m^2 (GFA)	25.0
		Gyms	per 100m^2 (GFA)	25.0
		Indoor Sports Centre	per 100m^2 (GFA)	25.0
		Licensed Club	per 100m^2 (GFA)	30.0
		Unlicensed Club	per 100m^2 (GFA)	15.0
		Night Club	per 100m^2 (GFA)	30.0
		Theatre / Cinema	per 100m^2 (GFA)	30.0
		All other uses	As determined by Council	
	OUTDOOR RECREATION			As determined by Council
OTHER USES	CAR PARK			Exempt

(1) Where situated in the South East Maroochy – Urban (SEM) and Other Urban Districts within the Mixed Housing, Multi – Storey Residential, Town Centre Core, Town Centre Frame and Village Centre Precincts.
(2) Other than as outlined for (1) above.
(3) Where situated in the South East Maroochy-Urban (SEM) and Other Urban Districts.
(4) Where situated in the Towns District.
(5) Where situated in the Rural District.

* For a 'Management Lot' the Roads cu/Unit is 7.5cu/Lot (where situated in the South East Maroochy – Urban (SEM) and Other Urban Districts), 8.5cu/Lot (where situated in the Towns District) and 9.5cu/Lot (where situated in the Rural District).

Table 5: Road Network Demand Factor Rates for Defined Commercial Uses[(1)]

		PRECINCTS				
Defined Uses and Use Classes	**Assessment Unit**	**Local Centre or Village Centre (Rural District)**	**Mixed Housing, Multi-storey Residential, Neighbourhood Residential, Village Centre (excluding Rural District)**	**Town Centre Core (Maroochydore or Mooloolaba)**	**Town Centre Core (Other than Maroochydore or Mooloolaba)**	**Town Centre Frame**
Adult Product Shop	per 100m^2 (GFA)	9	24	18	20	22
Art & Craft Centre	per 100m^2(GFA)	9	24	18	20	22
Convenience Restaurant	per 100m^2 (GFA)	22.5	60	45	50	55
Fast Food Store	per 100m^2 (GFA))	22.5	60	45	50	55
Funeral Parlour	per 100m^2 (GFA)	9	24	18	20	22
Garden Centre	per 100m^2 (GFA)	9	24	18	20	22
Hotel	per 100m^2 (GFA)	22.5	60	45	50	55
Market	As determined by Council					
Medical Centre	per 100m^2 (GFA)	22.5	60	45	50	55
Office	per 100m^2 (GFA)	15.0	30	18	20	25
Restaurant	per 100m^2 (GFA)	22.5	60	45	50	55
Shops (including General Store)	per 100m^2 (GFA)	22.5	60	45	50	55
Shopping Complex	per 100m^2 (GFA)	22.5	60	45	50	55
Showroom	per 100m^2 (GFA)	11.25	30	22.5	25	27.5
Veterinary Clinic	per 100m^2 (GFA)	22.5	60	45	50	55

(1) Where a defined commercial use is situated in a precinct not outlined in Table 5, the demand factor rates are to be 'As determined by Council'.

APPENDIX 1: DC3 MAP 1 TRUNK ROAD INFRASTRUCTURE

APPENDIX 2: TABLE DC 3.3.1 DESIRED STANDARDS OF SERVICE FOR ROADS INFRASTRUCTURE

TABLE DC3.3.1 Desired Standard of Service for Road Network

Key Performance Indicator Road Network *Speed/Delay*	**Level of Service**	**Performance Measurement Process**	**Performance Target**		**Operational Environment**	**Hourly Maximum Capacity**	
			Average Link Speed	**Average Intersection Delay**		**Single Lane (PCU's)**	**Multi Lane Capacity (PCU's)**
Urban Arterial	≥ LOS D	Link: Average Travel Speed of through vehicles (floating car)	≥ 25 kph	≤ 45 secs	Interrupted	1200	1400
Arterial Main-street	≥ LOS D		≥ 15 kph	≤ 45 secs	Interrupted	900	900
Distributor	≥ LOS D		≥ 25kph	≤ 45 secs	Interrupted	1000	1200
Controlled Distributor	≥ LOS D		≥ 20kph	≤ 45 secs	Interrupted	1000	1200
Sub Arterial Main-street	≥ LOS D	Intersection: Average Delay all vehicles at intersections	≥15kph	≤ 45 secs	Interrupted	900	Not Applicable
Street Network *Volume/Speed*			**Max [m] Volume VPD**	**Max [m] Speed**		**Vehicles per day**	
District Collector	Environmental Capacity	Traffic Volumes & Max Speed	≤ 7,000	60kph	Interrupted	7,000 (two way)	Not applicable
Neighbourhood Collector	Environmental Capacity	Traffic Volumes & Max Speed	≤ 3,000	50kph	Interrupted	3,000 (two way)	Not applicable

PCU = passenger car units