
Development contributions for road network upgrading

PART 1 - INTRODUCTION

1.1 Intent and legislative framework

- (1) The intent of this policy is to facilitate the assessment by Council of the impact of traffic generation of a development proposal.
- (2) This policy is an interim measure pursuant to sections 6.1.20 and 6.1.31 of the Act until the adoption by Council of its priority infrastructure plan and associated infrastructure charges schedule.
- (3) Part 2 of this policy identifies the method for calculating contributions for road network upgrading.
- (4) Despite this policy, the exercise of Council's discretion under sections 3.5.13 and 3.5.14 of the Act is not fettered by Council's ability to require a contribution for road network upgrading pursuant to this policy.

PART 2 - IMPLEMENTATION

2.1 Application

- (1) This policy has application under the IDAS transitional arrangement for calculating contributions towards road network upgrading for all assessable development for material change of use and reconfiguring a lot.
- (2) As a condition of development approval, Council may require a development to contribute to road network upgrading with the contribution amount determined pursuant to the method set out in Part 3 to this Policy.
- (3) Generally, contributions required as a condition of a development permit issued by Council pursuant to Part 3 of the Act shall specify:
 - (a) the amount of contribution calculated in accordance with this policy; and
 - (b) the time by which the payment shall be made - in the event that a time is not specified by a condition of a relevant development approval, the contribution shall be paid to Council prior to the commencement¹ of the approved development.

¹ To remove any doubt, *commencement of the approved development* means for:

- a) material change of use, the start of the approved use; and
- b) reconfiguring a lot, the sealing by Council of a plan of subdivision for the approved development.



2.2 Determining principle access route

- (1) The *principle access route* is that part of a road or roads as determined by Council that provides land on which assessable development is proposed with its principle access to the Shire's road network.
- (2) The *principle access route* excludes:
 - (a) any new road resulting from the proposed development;
 - (b) any intersection treatments with the principle access route; or
 - (c) a road providing frontage to the site of the proposed development where works for the upgrading of the frontage are required by condition on a relevant development permit.
- (3) If the site of a proposed development has more than one possible access route, Council shall determine the *principal road access*, based on its consideration of routes that have recent developments and road contributions

PART 3 - METHOD FOR CALCULATING CONTRIBUTION

3.1 Contribution for additional traffic resulting from development

- (1) The contribution for road network upgrading for an assessable development shall be calculated as follows:
 - (a) Inspection of the site to determine:
 - (i) *Principal access route* and details such as length, existing width, existing condition of the roads including surface, drainage, intersections, roadside furniture, etc. Measurements of existing traffic volumes are carried out along the principal access route;
 - (ii) Number of lots/dwellings currently served by the roads in the principal access route.
 - (b) Assessment of the development proposal to determine:
 - (i) Number of additional lots to be created and the traffic generation resulting from the proposal; or
 - (ii) The type of traffic generating development and its gross floor area or other measure and the traffic generation resulting from it.
 - (c) Determination of required road upgrading and costs:
 - (i) The road standard required to meet the demand created by the proposal;
 - (ii) Calculation of upgrading costs based on current roadworks costs.
 - (d) Determination of the subdivider/developer's contribution:
 - (i) This is calculated based on the increase of traffic impact due to the additional lots created or the type of development.
- (2) The calculation of a contribution shall exclude land proposed to be transferred for public parkland and other land proposed for transfer for a public purpose accepted by Council.



- (3) The amount of contribution is proportional and based on the additional traffic generated by new development contributing to the upgrading to the principal access route and is calculated using the formula:

$$\left(\frac{y}{x+y} \right) \times \begin{matrix} \text{estimated cost (\$) for upgrading (new construction)} \\ \text{of the principal access route} \end{matrix}$$

where:

x = the current level of vehicles per day carried by the principal access route; and

y = the additional vehicles per day generated by the development

- (4) The above formula [refer to (3)] applies to short vehicles and may require adjustment for medium and long vehicles when more than 10%² of vehicle movements generated by a development comprise other than short vehicles by multiplying the contribution amount calculated using the formula by the equivalent standard axle value set out below:

Vehicle classification ³	Equivalent standard axle ⁴
Medium	0.86
Long	2.64

PART 4 - UPGRADING REQUIREMENTS

4.1 Traffic generation

- (1) Calculations under this policy are made using the following traffic generation rates.

Development (1)	Vehicles per day (vpd)
Allotment/lot in any zone	10/dwelling unit/lot (2)
Dual occupancy	6.5/dwelling unit
Multiple dwelling	6.5/dwelling unit
Accommodation building	3/dwelling unit
Retirement village	1.5/dwelling unit
Caravan park	3/caravan, tent or cabin site
Home-based business	1.5/home occupation
	2.5/student
Special use – educational purpose(4)	
Special use – educational purpose(4), Boarding	1/student accommodation
Child care centre	2.5/child
Outdoor recreation – court	4/court
Outdoor recreation – playing field	40/hectare
Outdoor recreation – golf course	200/golf site
Marina	4/berth
Major tourist facility - resort	4/room

² The proportion of commercial vehicles on urban arterial roads is approximately 10% of all traffic [section 8.1, 'Traffic Engineering and Management', Ed. KW Odgen and SY Taylor (1966)]

³ Refer to Attachment 1 for descriptions of short, medium and long vehicles.

⁴ arrb Transport Research (1998). *Report is Commercial in Confidence* 'Calculation of ESA's for Bin. No. 1-12 at 75% load applicable to Livingstone Shire.



Development (1)	Vehicles per day (vpd)
Restaurant	5/10m ² GFA ^A
Convenience restaurant (5) or take-away food store	25/10m ² GFA
Service station	30/100m ² GFA
Storage premises (7)	4/100m ² GFA
Business premises (8)	10/100m ² GFA
Shop – convenience	5/100m ² total use area ^B
Shop - retail	4/100m ² total use area
Shop - shopping centre (6)	30/100m ² gross leasable area ^C
Shop - retail warehouse	10/1,000m ² site area or 4/100m ² total use area whichever is the greater

NOTES

- (1) Development as meant under the Integrated Planning Act
- (2) Vehicles per day (vpd) derived from a variety of sources: Council Policy 6.17, RTA (NSW) 1993-1995 cited by Wisdom and Henson (1996), & “Yeppoon Tanby Road Access Management Plan” (2004) prepared for Department of Main Roads by Eppel Olsen & Partners, Hervey Bay City Council, Cairns City Council, Whitsunday Shire Council.
- (3) Dwelling unit is taken to mean a single dwelling, a unit in a multiple dwelling or the like, a bed sitter unit, a bed (in the case of a nursing home or other), etc.
- (4) For example, primary or secondary school.
- (5) With or without a drive-through takeaway.
- (6) As an integrated development with centralised car parking, vehicle and pedestrian access servicing a group of shops in an integrated design all occurring within land in private tenure.
- (7) for example, a warehouse.
- (8) For example, an office, veterinary clinic, medical centre, funeral parlour.

FOOTNOTES IN TABLE 2:

- A Gross Floor Area – as defined in the Livingstone Shire planning scheme.
 B Total Use Area – the area to be used by the development less voids, columns, walls, etc., where undercover use predominates as being the purpose of the journey. If not undercover then the total use area is that area associated with the outdoor use. For example in the case of an outdoor market” it would mean all stalls, aisles, and areas used in conjunction.
 C - Gross Leasable Area – The total usable, rental space in a building.

- (2) Where a use is not specified in (1) above, then the traffic generation is to be based on local and credible study. The accepted traffic generation is at the absolute discretion of Council.

The method to calculate the contribution is as explained in section 3.1(3).

4.2 Road standards

- (1) Upgrading contributions are required for the *principal access route* to :
 - (a) satisfy Council’s road standards; or
 - (b) intersection with a Declared Main Road, inclusive of any works to be funded by Council within the main road reserve;
- (2) Road standards are based on the following traffic volumes criteria for assessment of the *principal access route*:

Type	Traffic volume (vpd)	Standard
RURAL ROADS		
Rural access	< 100	4.0m seal, 5.5m gravel in 8.0m formation
Rural minor collector	100 – 999	6.5m spray seal over gravel in 8.0m formation



Type	Traffic volume (vpd)	Standard
Rural major collector	1000 – 7999	8.0m spray seal over gravel in 10.0m formation
Arterial	8000 +	10.0 spray seal over gravel in 12.0m formation
URBAN ROADS (including park)		
Residential		
Urban access place	0-399	5.5m sealed carriageway, kerb & channel
Urban access street	400-749	5.5m sealed carriageway, kerb & channel
Minor urban collector	750 - 2999	7.5m sealed carriageway, kerb & channel
Major urban collector	3000 - 5999	10.0m sealed carriageway, kerb & channel
Urban sub-arterial	6000 - 10000	5.0m sealed divided carriageway, 2x5.5m carriageways
Urban arterial	per assessment	
Industrial		
Industrial access (site<8ha)		13.0m sealed carriageway, kerb & channel
Industrial collector		5.0m median, sealed divided carriageway, 2x 6.5m carriageways



ATTACHMENT 1 Dominant vehicles in each AUSTROADS⁵ class

1.1 Short vehicles – Class 1

Characteristics - $\leq 3.1\text{m}$ wheelbase length



Class 1
Short Vehicle

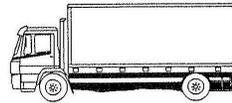
1.2 Medium vehicles – Classes 2 – 5

Characteristics - $> 3.1\text{m}$ wheelbase length $\leq 8.5\text{m}$

- Light truck towing (e.g., towing caravan, boat etc)
- Rigid truck
- Tandem drive truck
- Twin steer truck



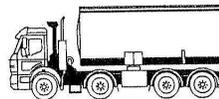
Class 2
Short Vehicle Towing



Class 3
Two Axle Truck



Class 4
Three Axle Truck



Class 5
Four Axle Truck

1.3 Long vehicles – Classes 6 - 12

Characteristics - $> 8.5\text{m}$ wheelbase length

- Articulated truck
- Twin steer towing truck
- Double road train

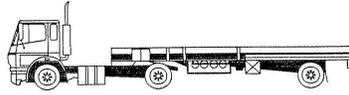
Characteristics - $> 34\text{m}$ wheelbase length

- Triple road train

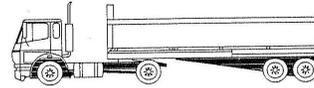
⁵ AUSTROADS. *Guide to traffic Engineering Practice - Vehicle Classification System*. (AUSTROADS, Sydney)



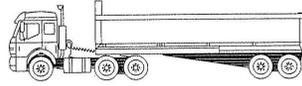
Planning Scheme Policy No. 13



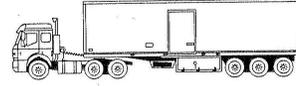
Class 6
Three Axle Articulated Vehicle



Class 7
Four Axle Articulated Vehicle



Class 8
Five Axle Articulated Vehicle



Class 9
Six Axle Articulated Vehicle



Class 10
B Double



Class 11
Double Road Train



Class 12
Triple Road Train

