

# Policy

## Traffic calming priority

<b>Reference Number:</b>	<b>SG35</b>
<b>Type:</b>	Strategic
<b>Legislation:</b>	<i>Road Traffic Act 1974</i> <i>Road Traffic Code 2000</i> <i>Local Government Act 1995</i>
<b>Procedure:</b>	NA
<b>Delegation:</b>	Manager infrastructure projects
<b>Other related document:</b>	Traffic calming investigation - analysis sheet Traffic parameter criteria and weightings Traffic calming investigation flow chart

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## Objective

The objective of this policy is to specify a consistent, transparent, and accountable procedure for reviewing traffic conditions on local roads and traffic calming requests; and to define the intervention levels for instituting remedial traffic calming measures.

## Policy

### Roads Eligible for Investigation:

The function of a road is categorised in accordance with the Main Roads WA document; *Perth Metropolitan Area Functional Road Hierarchy*. The categories are:

- Primary Distributor
- District Distributor (A)
- District Distributor (B)
- Local Distributor and,
- Access Road.

Primary Distributor, District Distributor (A) and District Distributor (B) roads are recognised as the major transport corridors in the road network system. It is expected these roads will generally carry larger traffic volumes operating at higher speeds. As it is likely the installation of traffic calming devices on these particular classes of roads would dramatically affect their operation, it is not the intention that they be analysed in accordance with this policy. Ideally, traffic management treatments on major distributor roads would result from a comprehensive study.

This policy has been developed in the interest of reviewing conditions on local roads. Only roads categorised as Access roads or Local Distributor roads should be analysed using the procedure defined in this policy.

Method of Analysis:

This policy adopts a method of scoring varying quantitative factors unique to each road section under investigation, with the final score to be used as a guide for determining whether the City will consider any remedial works and its priority in context of existing programmed works. This methodology is recognised by Austroads as good practise and is being used increasingly by Local Government authorities nationally.

The assessment of roads or road sections for traffic calming using this procedure will be limited to road lengths of less than 500 metres and should not include major intersections. The operation of major intersections should generally be considered in isolation as intersections are known crash sites due to the increased concentration of vehicle movements, and hence increased possibility of conflict, at them. The operation of intersections is typically influenced by limited factors within their immediate proximity, compared to lengths of road that may be affected by more factors

Factors such as reported crash history, recorded traffic speed and traffic volume data will be assessed against a fixed range of values to determine an “*action priority*” score. As it is common that some minor treatment works may have already occurred within the area under investigation, factors of these treatments are also assessed to determine a “*reduction*” score. However these reduction score(s) are to be omitted when existing remedial treatment(s) can be demonstrated to be ineffective. Tabulation of these scores results in the *overall score*, which is representative of the operational environment of the road.

The *overall score* is the determining factor in determining whether the City will consider any treatment works. The score is evaluated against defined intervention levels to determine the appropriate action. Note that the final score will not be considered as a definitive measure that automatically obligates the City to install traffic calming measures. When a completed Traffic Calming Warrant assessment score indicates that remedial action is warranted, it is important that appropriate technical skill and professional traffic experience is used to assess why a road section achieves that score. The identification of the major contributing factor(s) will help to determine what action, if any, is appropriate and what remedial treatments might be beneficial to addressing the identified problem.

For example:

1. A 500 metre long section of road being assessed might achieve a score that suggests that remedial traffic calming is warranted. If a review of the factors finds that a high number of crashes at a particular intersection along that road are the major contributor to the high score then it is probable that site specific remedial treatment is required only at the intersection, rather than traffic calming the full section of road being assessed. The intersection crash history should then be reviewed by experienced officers and professional judgement applied as to what remedial treatment is required to improve road safety.

As the road network in each municipality is unique, it is difficult to develop uniform appraisal results that would be applicable to all local road networks. While this policy has been developed using other authority documents as a guide, it aims to reflect the City of Fremantle's road network. However, this policy will require revision on a periodic basis to ensure the contents and methodology remain relative.

Investigation Procedure:

The procedure for appraising traffic conditions and calming requests will be as follows:

- (i) The site or request details are to be placed on an investigation list in accordance with their receipt date. Council officers shall provide the applicant(s) with interim advice on an anticipated final reply date.
- (ii) Reported crash data for the previous 5 years shall be obtained from Main Roads WA.
- (iii) Traffic speed and volume data shall be gathered from Council records. (Traffic classifiers are to be located on site for approximately one week if existing data is not available or more than 2 years old).
- (iv) A site inspection should be undertaken to note relevant road features and to gather an appreciation for the existing road environment.
- (v) Using the *Traffic Calming Investigation - Analysis* sheet, relevant details collected shall be noted Table 1: Traffic Parameter Score in the column titled "Value". This information is to be evaluated against the Traffic Parameter Criteria and Weightings (Table 2) with individual results noted in the column titled "Score". The *Overall Score* shall then be tabulated.
- (vi) The Overall Score shall be evaluated and actioned in accordance with the requirements of Action Priority table (Table 3).
- (vii) Applicant(s) are to be formally advised on the outcome of the investigation.

This policy will not be the sole basis on which funds are allocated to traffic management, road safety or traffic calming projects. As stated above, intersections should be considered separately and there may be other advantageous factors, typically financial or timing benefits, which justify implementation of other projects, or projects of a lower priority sooner, such as:

- Coordination of works with existing programmes such as Local Centres program, Road Rehabilitation, Sewer Infill, Level of Activity etc.
- The availability of funding opportunities from either Council or external programs
- The notification of the success of a Black Spot program submission,
- The opportunity to conduct a joint project with an adjoining Local Authority on a road with shared responsibility.

Assessment of a road section as being a moderate or significant traffic issue within this policy may not guarantee remedial works. In some instances, the most beneficial treatment to improve road user safety may be beyond Council's financial resources to provide. In these cases, effort will be made to determine if there are any other funding sources/opportunities

available to Council and what reasonable measures that can be taken to improve road safety at the site, will be.

### **National Competition Policy Implications**

Competition Policy does not apply.

### **Policy Implementation Steps**

This policy becomes operational on adoption by Council and will be used by Council's Assets & Infrastructure team to assess the justification and priority for traffic calming requests.

### **Reporting Arrangements on Decision-Making under this Policy**

Any traffic calming requests that are assessed to be a significant traffic management issue will be reported to Council at the earliest opportunity for consideration of possible funding sources and priority.

Any traffic calming requests that are assessed to be moderate traffic management issues will be nominated for consideration in Council's 5 year Capital Works Program.

Attachments:

Traffic Calming Investigation - Analysis Sheet

Traffic Parameter Criteria & Weightings

Traffic Calming Investigation Flow Chart

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<b>Responsible directorate:</b>	Technical services
<b>Reviewing officer:</b>	Manager infrastructure projects
<b>Decision making authority:</b>	Council
<b>Policy adopted:</b>	14 March 2005
<b>Policy amended:</b>	2011. (reviewed with no amendment)
<b>Next review date:</b>	2014

**TRAFFIC CALMING INVESTIGATION - ANALYSIS SHEET**

Road name:

Location detail:

Road class:

Reason for analysis:

Investigation officer:

Investigation date:

**TABLE 1: TRAFFIC PARAMETER SCORE**

**Note:** Maximum road length for each analysis = 500 metres

<b><u>PARAMETER</u></b>	<b><u>VALUE</u></b>	<b><u>SCORE</u></b>
85 <sup>th</sup> Percentile speed	0	0
Traffic volume (AWT)	0	0
Crash data <sup>1</sup>		
• Fatal	0	0
• Injury	0	0
• Non-injury	0	0
Road design and topography		
• Restricted sight crest curve	0	0
• Restricted sight horizontal curve	0	0
• Bends with unrestricted sight	0	0
• Steep hill	0	0
Vulnerable road users		
• Major bicycle or pedestrian crossing	0	0
• Important bicycle route	0	0
Activity generators		
• School	0	0
• College	0	0
• Retail	0	0
Amenity factors		
• Trucks	0	0
• Peak-hour traffic	0	0
	<b>Total</b>	<b>0</b>

**Action required:**

<sup>1</sup> Accident reduction factor to account for higher traffic volumes applies.

Traffic Volume	Factor
0 – 1000	1.0
1000 – 2000	0.9
2000 – 3000	0.8
3000 – 4000	0.7
4000 – 5000	0.6
over 5000	0.5

**Table 2: Warrant Criteria and Weightings**

Traffic Parameter	Range/Item	Point Scores for Each Parameter	
		Local Road	Local Distributor
1 Traffic Speed as 85 <sup>th</sup> percentile in 50km/hr zone	< 50	0	0
	50 – 53	2	2
	54 – 57	5	5
	58 – 61	10	10
	62 – 65	15	15
	66 – 68	25	25
	69 – 72	40	40
	73 – 76	65	65
2 Traffic Volumes in vehicles per day (average weekday traffic flow)	1000 – 1499	4	0
	1500 – 1999	7	0
	2000 – 2499	10	0
	2500 – 2999	14	0
	3000 – 3999	18	4
	4000 – 4999	24	7
	5000 – 5999	30	12
	over 6000	39 + 9 per 1000	18 + 7 per 1000
3.1 Crash Data <sup>1</sup> (5 years – Fatal)	1 fatal	4	4
	2 fatal	20	20
	3 fatal	45	45
	more than 3	45 + 25 per fatal	45 + 25 per fatal
3.2 Crash Data <sup>1</sup> (5 years – Injury)	1 injury	3	3
	2 injuries	12	12
	3 injuries	27	27
	more than 3	27 + 15 per injury	27 + 15 per injury
3.3 Crash Data <sup>1</sup> (5 years – non injury)	1 non injury	2	2
	2 non injuries	6	6
	3 non injuries	11	11
	more than 3	11 + 5 per non injury	11 + 5 per non injury
4.1 Road Design and Topography Restricted sight crest curve	Under 50 km/hr	2	2
	50-60 km/hr	6	6
	over 60 km/hr	18	18
4.2 Road Design	Under 50 km/hr	2	2

<sup>1</sup> Accident reduction factor to account for higher traffic volumes applies.

Traffic Volume	Factor
0 – 1000	1.0
1000 – 2000	0.9
2000 – 3000	0.8
3000 – 4000	0.7
4000 – 5000	0.6
over 5000	0.5

Traffic Parameter	Range/Item	Point Scores for Each Parameter	
		Local Road	Local Distributor
and Topography Restricted sight horizontal curve	50-60 km/hr	6	6
	over 60 km/hr	18	18
4.3 Road Design and Topography Bends with unrestricted sight	Under 50 km/hr	0	0
	50-60 km/hr	2	2
	over 60 km/hr	6	6
4.4 Road Design and Topography Steep hill	Under 50 km/hr	1	1
	50-60 km/hr	4	4
	over 60 km/hr	10	10
5.1 Vulnerable Road Users Major bicycle or pedestrian crossing point	Under 1000 vehicles	1	1
	1000 – 2000 vehicles	2	2
	2000 – 3000 vehicles	4	4
	3000 – 4000 vehicles	6	6
	4000 – 5000 vehicles	8	8
	over 5000	10	10
5.2 Vulnerable Road Users Important bicycle route	Under 1000 vehicles	0	0
	1000 – 2000 vehicles	1	1
	2000 – 3000 vehicles	2	2
	3000 – 4000 vehicles	3	3
	4000 – 5000 vehicles	4	4
	over 5000	5	5
6.1 Activity Generators College	Under 30 km/hr	0	0
	30-40 km/hr	0	0
	40-50 km/hr	4	4
	50-60 km/hr	10	10
	over 60 km/hr	12	12
6.2 Activity Generators School	Under 30 km/hr	0	0
	30-40 km/hr	2	2
	40-50 km/hr	4	4
	50-60 km/hr	8	8
	over 60 km/hr	10	10
6.3 Activity Generators Retail	Under 30 km/hr	0	0
	30-40 km/hr	0	0
	40-50 km/hr	2	2
	50-60 km/hr	4	4
	over 60 km/hr	8	8

Traffic Parameter	Range/Item	Point Scores for Each Parameter	
		Local Road	Local Distributor
7.1 Amenity Factors Trucks	Under 1%	0	0
	1 - 2%	2	0
	2 – 3%	4	1
	3 – 4%	7	3
	4 – 5%	10	6
	over 5%	12	8
7.2 Amenity Factors Rat-running through traffic	Under 10%	0	0
	10 – 20%	5	3
	20 – 40%	15	10
	over 40%	20	15

**Table 3: Action Warrants**

Decision	Total Point Score	Action Response
Technical Problem Site	51 or greater	Considered to be a site that has problems. Suitable solutions to be considered for funding and implementation.
Minor Technical Problem Site	31 to 50 points	Consider low cost non-capital works solutions (e.g. signing and linemarking) if appropriate. Review again after 2 years.
A site with low safety and amenity concerns	30 points or less	No further action required.



**TRAFFIC CALMING  
INVESTIGATION FLOWCHART**

