

ROAD LIGHTING PROCEDURE

1. Scope

The Road Lighting Procedure (this 'Procedure') applies to all roads under the jurisdiction of Council and roads to be contributed to Council through development works as defined by the *Planning Act 2016*.

2. Purpose

The purpose of this Procedure is to ensure that the provision of road lighting is efficient, effective and conducive to:

- the safe movement of vehicles, cyclists and pedestrians at night; and
- discouraging illegal and anti-social acts.

This Procedure provides guidance and instruction on:

- the standard of lighting to be provided on roads where upgrade or improvement works are being undertaken;
- the efficient and effective placement of road lighting;
- the provision of road lighting for safe movement of vehicles, cyclists and pedestrians at night and during times of diminished lighting; and
- the use of road lighting as an effective risk management practice and crash counter-measure which promotes public safety and security by discouraging unlawful and anti-social activity.

3. Related Documents

Primary

Road Related Management and Functions Policy

Legislative references

Local Government Act 2009 s 60(1)

Planning Act 2016

Related documents

AS/NZS 1158 Lighting for roads and public spaces

AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting

Austrroads – Guide to Road Design

Capricorn Municipal Development Guidelines – Geometric Road Design

[Ergon Energy–Guidelines and Manuals–Materials Specifications–Approved Products List](#)

Livingstone Planning Scheme 2018

National Light Pollution Guidelines for Wildlife – January 2020

4. Definitions

To assist in interpretation, the following definitions shall apply:

AADT	Annual Average Daily Traffic.
Access Place/Street	Refer to CMDG Geometric Road Design D1
AS/NZS 1158	AS/NZS 1158 Lighting for roads and public spaces.
CMDG	Capricorn Municipal Development Guidelines
Council	Livingstone Shire Council.
CO&O	Light rating category Customer owned and operated (CO&O) Unmetered Lighting supplied, installed, owned and maintained by the public body. Supply is unmetered, has a fixed wattage and must comply with the AS/NZS 3000 Wiring Rules. Beyond the point of supply, reticulation is owned and maintained by the consumer
EO&O	Light rating category Energy Queensland owned and operated Unmetered Lighting (non-contributory) lighting supplied, installed, owned and maintained by the energy provider. The tariff includes components supply, installation and recovery over time
Flag Lighting	Lighting generally used to draw the attention of motorists to isolated localised conflicts. The lighting lux levels is consistent with P or V
G&EO	Light rating category Gifted and Energy Queensland operated (G&EO) Unmetered Lighting (contributory) lighting owned and maintained by the energy provider
Major Collector	Refer to CMDG Geometric Road Design D1 Has the same meaning as Distributor in AS/NZS 1158
Major Traffic Routes	Roads designated as Sub-Arterial/Arterial within Council's adopted road hierarchy where traffic volumes exceed 10,000 AADT.
Minor Collector	Refer to CMDG Geometric Road Design D1 Has the same meaning as Collector in AS/NZS 1158
Non-standard Lighting	Architectural lighting and luminaires not specified in the Ergon Energy - Guidelines and manuals – Materials specifications – Approved products list
Road	As defined in the <i>Local Government Act 2009</i> and includes carparks under Council control that are contiguous to Council controlled roads.
RPEQ	Registered Professional Engineer of Queensland
Rural zone	As defined in the Livingstone Planning Scheme 2018.
Sub-Arterial/Arterial	Refer to CMDG Geometric Road Design D1
Township zones	As defined in the Livingstone Planning Scheme 2018.

5. Procedure

It is Council's intention to provide road lighting in accordance with the lighting categories contained in AS/NZS 1158, the CMDG and Austroads' – Guide to Road Design. These categories are:

- **Category V Lighting** - Applicable where the visual requirements of motorists is dominant.
- **Category P Lighting** - Applicable where the visual requirements of pedestrians is dominant.

Council's intent is to meet the relevant Australia Standard, however because this is cost prohibitive in the short to medium term, this Procedure is adopted to enable Council to work towards meeting this aim over a period of time as funds allow.

5.1 Lighting Categories

5.1.1 Category V Lighting - generally applies to higher order roads, some commercial and industrial applications such as:

- a) sub-arterial/arterial;
- b) major collector;
- c) commercial centres (such as the CBD); and
- d) industrial estates (where appropriate).

5.1.2 Category P Lighting - generally applies to lower order roads and some commercial and industrial centres such as:

- a) minor collector;
- b) access place/street;
- c) industrial estates (where appropriate);
- d) pathway; and
- e) car parks.

5.1.3 Flag lighting in accordance with s 4.5.2(c) of AS/NZS 1158¹ generally applies as follows:

- a) rural residential areas (lots up to 2 hectares and frontages less than 100 metres), lighting to be installed at:
 - i) intersections;
 - ii) cul-de-sacs;
 - iii) change of direction; and
 - iv) crests.
- b) At intersections in the rural zone and township zones that meet the following requirements:
 - i) both the through road and the minor road are sealed; and
 - ii) the sum of the intersection volume is 750AADT or greater; and
 - iii) the traffic volume on the minor road is 251AADT or greater; or
 - iv) the sight distance for the intersection cannot be achieved.

5.2 Guiding Principles

¹ AS/NZS 1158.1.1:2022.

5.2.1 Smart Technology and Adaptive Lighting

- a) Council will utilise lighting technology that promotes reduced energy consumption and carbon emission reduction. Smart lighting technology and solar lighting are such examples.
- b) If investigations determine it is appropriate, lighting can be dimmed from one category to a lower category. Considerations may include traffic volumes or pedestrian activities.
- c) Council will own and maintain non-standard lighting.

5.2.2 Wildlife Management

Lighting of wildlife nesting, feeding and roosting sites should be designed to have minimal impact on the native wildlife in accordance with the National Light Pollution Guidelines for Wildlife – January 2020.

5.3 Compliance with Australian Standards

- 5.3.1** Lighting of new or upgraded roads will be designed to meet AS/NZS 1158 for the appropriate lighting category.
- 5.3.2** In circumstances where it is unnecessary, or not possible to meet AS/NZS 1158, the appropriate Council Manager may authorise a lower standard only if a risk assessment is undertaken and certified by an RPEQ and it is demonstrated that a lower standard is adequate under the circumstances.
- 5.3.3** To limit adverse effects on private property, new lighting must comply with the technical parameters, design, installation, operation and maintenance of AS/NZS 4282:2019.

5.4 General Provisions

- 5.4.1** When Council installs lighting for roads it should comply with AS/NZS 1158.
- 5.4.2** The level of lighting provided to accessible car parks will depend on the amount of night time use. If the disabled car park is located in a position where it:
 - a) is used only during daylight hours, lighting will not be provided;
 - b) receives some night time usage, it is to be located under the nearest light (where practicable and complying with other relevant standards); and
 - c) gets a high level of night time usage; it will be lit in accordance with AS/NZS 1158.
- 5.4.3** Lighting at the end of roads (cul de sac) should be lit on the approach to the termination of the road and within 30m of the end of the road.
- 5.4.4** Wider non-standard road reserves are not required to have the entire road reserve completely lit when:
 - a) the road reserve contains both a through road and a service road. The through road should be lit to the acceptable standard (consider light placement on through road to provide spill lighting to the service road if possible);
 - b) the road is adjacent to a National Park or wildlife sensitive areas; or
 - c) where the pathway is greater than 5m from the back of the kerb and channel (separate lighting of the pathway needs to be assessed in this instance).

5.4.5 Council should promote the provision of effective illumination on pathways so that dark areas are minimised with emphasis on pedestrian safety by installing lights according to the following provisional standard:

- a) constructed paths contiguous with roads but where there is reasonable separation between the road and the pathway (i.e. by an extensive nature strip), will be illuminated either separately to the adjacent road or through enhancement of the lighting on the adjacent road such that the design meets the lighting parameter requirements stipulated by AS/NZS 1158; and
- b) connecting elements on constructed pathways such as stairs, ramps and underpasses should be illuminated in accordance with AS/NZS 1158.

5.5 Requests for New or Improved Lighting

Council will develop a strategic plan to upgrade lighting on existing roads and intersections based on the following guiding principles:

- a) the proportion of night time use;
- b) volumes of vehicle, pedestrian and cycle activity and their interaction with each other;
- c) historical night crash or incident rates;
- d) environmental impacts associated with spill lighting and glare; and
- e) road hierarchy.

5.6 Requests for Glare Control

5.6.1 Glare control will only be considered where lighting exceeds the requirements of AS/NZS 1158 and will be installed at Council's cost.

5.6.2 Despite 5.6.1, Council may approve installation of glare control at a landowner's expense to address excessive lighting nuisance caused to residents.

5.7 Light Rating Categories

5.7.1 The majority of Council's lighting installations are either EO&O or G&EO. Some CO&O lighting installations are in place where non-standard lighting installations have been used or where major works have been carried out on major traffic routes.

5.7.2 Where possible, new lighting installations should be carried out as either EO&O or G&EO schemes.

5.8 Maintenance, Repair and Replacement of Lighting

When contacted regarding maintenance, repair or replacement of lighting, Council will determine who is responsible and submit a request in accordance with the responsibilities below:

- a) the energy provider – EO&O and G&EO;
- b) Department of Transport and Main Roads – CO&O lights associated with controlled intersections such as traffic signals and roundabouts on the State controlled road system; or
- c) Council - CO&O lights associated with controlled intersections such as traffic signals and roundabouts on Council's major road system.

6. Changes to this Procedure

This Procedure is to remain in force until otherwise amended/replaced or other circumstances.

7. Repeals/Amendments

This Procedure repeals Livingstone Shire Council 'Road Lighting Procedure (v4.0)'.

Version	Date	Action
1.0	13/05/2014	Approved
2.0	27/09/2016	Amended Procedure approved
2.1	04/12/2018	Administrative Amendments – reflect organisational restructure
3.0	21/09/2021	Amended Procedure approved – procedure title amended from Road, Street and Public Place Lighting Procedure, full review undertaken
4.0	21/12/2021	Amended Procedure – Full review undertaken and content of former/repealed policy of same name included. Approved by Executive Director and endorsed by Council.
5.0	07/07/2023	Amended Procedure approved – Full review undertaken; Definitions Table updated.

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