

## Sunshine Coast Council Lower Order Unsealed Roads Upgrade Plan 2016 - 2026





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## Executive Summary

Council adopted the Unsealed Roads Upgrade Plan 2015-2035 at its Ordinary Meeting on 28 February 2015.

The plan provides the basis for council to assess and prioritise the upgrading of unsealed roads utilising available funding allocation. The roads which have been identified as having a high priority are generally the more major roads (neighbourhood collectors).

However, council continues to receive requests for upgrading of roads from residents whose properties are accessed by gravel roads. The requests arise from residents' concerns primarily regarding amenity issues and in particular dust nuisance and road surface condition.

This Lower Order Unsealed Roads Upgrade Plan 2016 - 2026 (The Plan) has been developed to provide a process for council officers and councillors in responding to these ongoing requests from residents.

The Plan focuses on unsealed roads which carry traffic volumes of less than 150 vehicles per day. These roads primarily provide access to properties, are typically cul-de-sacs, less than a kilometre long and have little or no likelihood of future extension and/or increased traffic volume.

The Plan does not apply to the development of new roads.

A process to assess and prioritise requests has been developed which focuses on traffic volume, housing density and maintenance costs.

An initial assessment of some of the lower order roads, identified through liaison with divisional councillors, has been undertaken. Other roads will be assessed on a case by case basis as requests are received.

Funding opportunities for upgrading of lower order unsealed roads is a challenge given that, on a whole of region basis, the projects have not previously been considered a priority by council.

The sealing of lower order unsealed roads is able to be achieved through a variety of funding mechanisms including entirely funded by residents, partially funded by residents, with additional funding from Divisional Councillors allocation, or entirely funded by council, if funds are available.

Each year the priority list of lower order unsealed roads will be reviewed and the indicative 10 year capital program amended, subject to budget commitments.

The Plan provides for sealing of around 15 km of the currently unsealed lower order road network over its life and will make a significant improvement to community amenity.

## 1. Purpose

The Sunshine Coast Council Lower Order Unsealed Roads Upgrade Plan 2016 - 2026 sets out the warrants, geometric standards, prioritisation and funding mechanisms for the upgrading of the lower order unsealed road network.

The plan has been prepared as a supporting plan under the Sunshine Coast Sustainable Transport Strategy 2011-2031, is an extension to the Unsealed Roads Upgrade Plan 2015 – 2035 and meets council's vision of the Sunshine Coast having an enviable lifestyle and environment.

## 2. Introduction

Council adopted the Unsealed Roads Upgrade Plan 2015-2035 at its Ordinary Meeting on 28 February 2015.

That plan provides the basis for council to assess and prioritise unsealed roads for upgrading, utilising available funding allocation. The roads which have been identified as having a high priority are generally neighbourhood collector roads.

Council continues to receive requests for upgrading of roads from residents whose properties are accessed from unsealed roads. The requests arise from residents concerns regarding amenity issues, including dust nuisance and road surface condition.

The Plan has been developed in response to these ongoing requests from residents.

The Plan provides for lower order unsealed roads which carry traffic volumes of less than 150 vehicles per day.

The Plan includes design guidelines which provide guidance for the design of appropriate "fit for purpose" roads which are sound, safe, dust free and of a standard which meets the expectations of the affected residents and the needs of the projected future traffic.



### 3. Road Hierarchy

Roads which comprise council's road network are classified according to their function and are identified in the Sunshine Coast Planning Scheme 2014. (Refer SC6.17 Planning Scheme Policy for the Transport and Parking Code.)

Lower Order Unsealed roads are typically "Local Access Roads" and are located in rural areas. For the purposes of The Plan lower order unsealed roads have a daily traffic volume of less than 150 vehicles per day and primarily provide access to properties. Further, the low order unsealed roads are typically cul-de-sacs, are less than 1 kilometre long and have little or no likelihood of future extension and/or increased traffic volume.

### 4. The Challenge Ahead

Expectations of the public regarding the level of service provided by the road network are continuing. This includes both long term residents and recent new arrivals. Over the past 2 years nearly 180 requests have been received for the sealing of various gravel roads that are being grouped as Lower Order Unsealed Roads.

Current capital funding for upgrading of unsealed roads is allocated on the basis of assessment of priorities of projects in accordance with the Unsealed Roads Upgrade Plan 2015 – 2035.

Under that assessment process Lower Order Roads are not determined to be a priority for funding.



### 5. Assessment and Prioritisation Process

A CEO procedure is to be developed to assist with the assessment and prioritisation for the upgrading of lower order unsealed roads that is similar to the Unsealed Roads Upgrade Plan process. However, there is proposed to be a greater emphasis on amenity and maintenance costs.

The prioritisation process, may include consideration of the following criteria:

- Housing density (number of houses per 200m of road length to be sealed)
- Number of houses
  - less than 40 metres from the road
  - between 40 metres – 80 metres from the road
  - greater than 80 metres from the road
- Benefit to Council (e.g. isolated unsealed road in a sealed network, scours regularly)
- Maintenance Costs

A weighting **would** be applied to each criteria, a score assigned and the weighted scores are added to provide an overall score for the road. The roads are then prioritised by the total score.

Details of the **draft** Criteria, Scores and Weightings are shown as Appendix 1.

The **draft** criteria, against which the lower order unsealed roads are assessed, were determined through consultation with councillors and supervisory staff.

A number of lower order unsealed roads in each division have been assessed and assessment of further roads will be undertaken as requests are received.

Delivery of projects is dependent on the priority ranking of the road, the mode of funding and funding availability.

### 6. Project Validation

The assessment and prioritisation process has enabled roads identified by divisional councillors to be ranked in order of priority.

Validation of the projects involves further assessment of the practicality and cost of the proposed upgrading works and the benefit to both council and the community.

### 7. Funding

Funding opportunities for upgrading of lower order unsealed roads are a challenge given that, on a whole of region basis, the projects have historically not been considered to be a priority for allocation of existing capital works program funding.

These projects may be delivered through a variety of funding mechanisms including whole or part funding by residents together with divisional councillor and capital road works funding if allocated.

The individual merits of each particular case needs to be assessed in regard to the available mix of funding and the project priority. The manner in which this occurs is dependent on the funding mix.

For example, if a project is included in council's adopted annual capital road works program the project will be delivered as per the normal process.

If a project is wholly or partly funded by the community or an individual, a report will be required to be submitted to council for consideration and approval.

The process flowchart is attached as Appendix 3.

The process follows three streams dealing with;

- High priority projects
- Medium priority projects
- Low priority projects

#### High Priority Projects

Projects which have been assessed as a high priority are listed in council's indicative 10 year capital road works program.

#### Medium Priority Projects

Projects which have been assessed as a medium priority are listed for future funding consideration. The project priority may be increased by contribution by the community towards the project cost.

#### Low Priority Projects

Projects which have been assessed as a low priority are listed for future funding consideration. The project priority would need to be increased by significant contribution by the community towards the project cost.

## 8. Geometric Road Design Guidelines

In accordance with Safe Systems principles, roads are to be designed to provide safe travel at an appropriate speed to cater for expected volume and type of traffic of traffic. The roads are to be "forgiving" such that an incident due to a moment's distraction or inexperience does not result in serious injury or worse.

As contained in council's Risk Management Manual 2015;

*Risk and Opportunities are considered as part of council normal work practices. In undertaking work council accepts that there will be some level of risk and take action to minimise this. All risks can never be fully avoided or mitigated, therefore all organisations have to accept some residual risk.*

Assessment of the likelihood and consequences of motor vehicle crashes are considered through the Safe Systems hierarchy of control. A low speed roadside environment where narrow road widths in combination with good visibility of oncoming vehicles and the provision of passing areas is seen to be the norm.

Significant vegetation is to be retained, wherever possible, to enhance the overall environmental amenity for the community.

Mechanisms such as the creation of localised road narrowing points, improved guidepost delineation and advisory signage may also be required to achieve the overall low speed target.

Off road grassed verges are to be provided, where the topography allows, to enhance the community use of the roadside for pedestrian, cycling and other non-vehicle modes of transport.

Stormwater runoff is to be managed, as much as possible, without concentrating or impeding flows and allowing the natural drainage paths to be retained. This will rely on a collaborative approach to the design and construction of road upgrades between council and adjacent landholders.

The Institute of Public Works Engineering Australia Lower Order Road Design Guidelines 2015 form the basis for council's proposed Lower Order Roads Design Guidelines.



## 9. Community Engagement

The ability of the community and council to develop appropriate fit for purpose sealed road solutions for lower order unsealed road will only be possible through a collaborative approach supported by the divisional councillor and involving open engagement with the local community.

The community engagement will need to include;

- Standard of road construction proposed
- Agreement on the funding model to be used
- Explanation of The Plan prioritisation for road upgrades
- Likely timing of delivery

## 10. Project Design and Construction

If a road upgrade is funded 100% by a private entity the project design and construction will be undertaken externally by a consulting engineer and contractor engaged by the private entity. The design will be required to be prepared with reference to the Geometric Road Design Guidelines and Safe Systems principles. Engagement with council during the design process will be required to ensure that a consistent approach is being undertaken. Final design plans and specification are to be submitted to council for review. Council will undertake surveillance monitoring of the construction works. A bond will be required to be held by council against failure to complete the works; a 12 month maintenance period will be required post construction and as constructed plans submitted prior to handover of the road asset. Council will undertake surveillance monitoring as the construction work proceeds.

If the road upgrade by other means council will facilitate design and construction and this may be undertaken “in house” or by engagement of a consultant and/or contractor.

## References

Sunshine Coast Council Unsealed Roads Upgrade Plan 2015-2035

IPWEAQ Lower Order Road Design Guidelines 2015



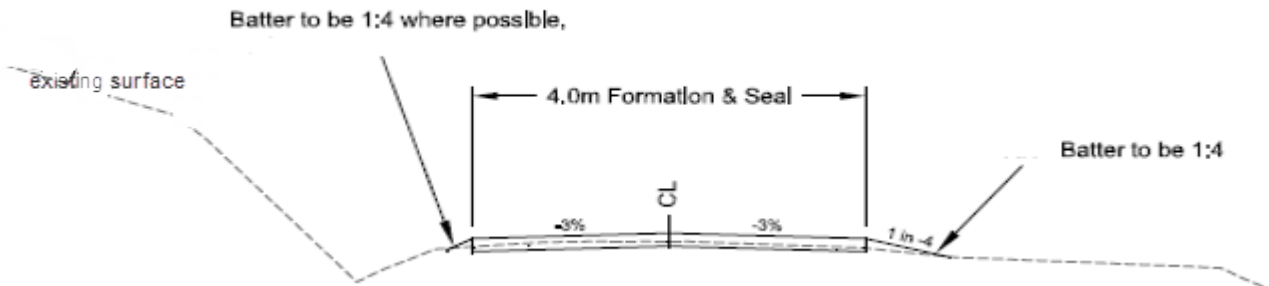
Appendix 1:

**Draft** Criteria, Unit and Weightings

<b>Criteria</b>	<b>Unit</b>	<b>Weighting</b> <i>(to be determined)</i>
<b>Amenity</b>		
Housing Density	Number of houses per 200 metres (over the total length of the road to be sealed)	
Number of Houses less than 40 metres from the road	Number of houses less than 40 metres from the road (over the total length of the road to be sealed)	
Traffic Volume	Average Daily Traffic Volume (total in both directions)	
<b>Council &amp; Community</b>		
Benefit to Council & Community	<p>Score 0 to 3 considering the following:</p> <ul style="list-style-type: none"> <li>• Gravel/Seal intersection improvements needed</li> <li>• Isolated unsealed road section in a sealed road network</li> <li>• Frequently scours during rain events</li> <li>• Inappropriate geometry for traffic volume/type (improvement would assist in lowering road safety risks)</li> <li>• Completes seal (e.g. small section of road remaining unsealed).</li> </ul> <p>0 if no perceived benefit</p>	
Maintenance Cost	<p>Score 0 to 3 considering the following</p> <ul style="list-style-type: none"> <li>• High cartage costs due to distance from supply source</li> <li>• High establishment of plant costs due to isolated location</li> <li>• High re-establishment of plant costs due to frequency of maintenance required</li> </ul> <p>0 if either of the following;</p> <ul style="list-style-type: none"> <li>• Irregular maintenance required</li> <li>• No requests</li> </ul>	

**Appendix 2:  
Geometric Road Design Guidelines**

<b>Asset Classification Characteristic</b>	<b>Local Access Road</b>
Vehicles per Day (total for both directions)	0 - 150
Design Speed	40kph minimum
Formation Width	4.0m + curve widening, crests and passing bays where required
Seal Width	All formation
Pavement	All formation
Width	All formation
Design Life	20 years
Shoulder	0
Cross fall (minimum)	3%
Super elevation (maximum)	6%
Batter Slopes	
Table Drain	1 in 4 (desirable)
Embankment	1 in 3 (desirable) 1 in 2 (maximum)
Line marking	
Centreline	At curve widening and crests only
Edge line	At curve widening and crests only
Advisory Speed Signage	yes
Guideposts	yes
Regulatory Posted Speed Limit	Yes (following review by Speed Advisory Committee)

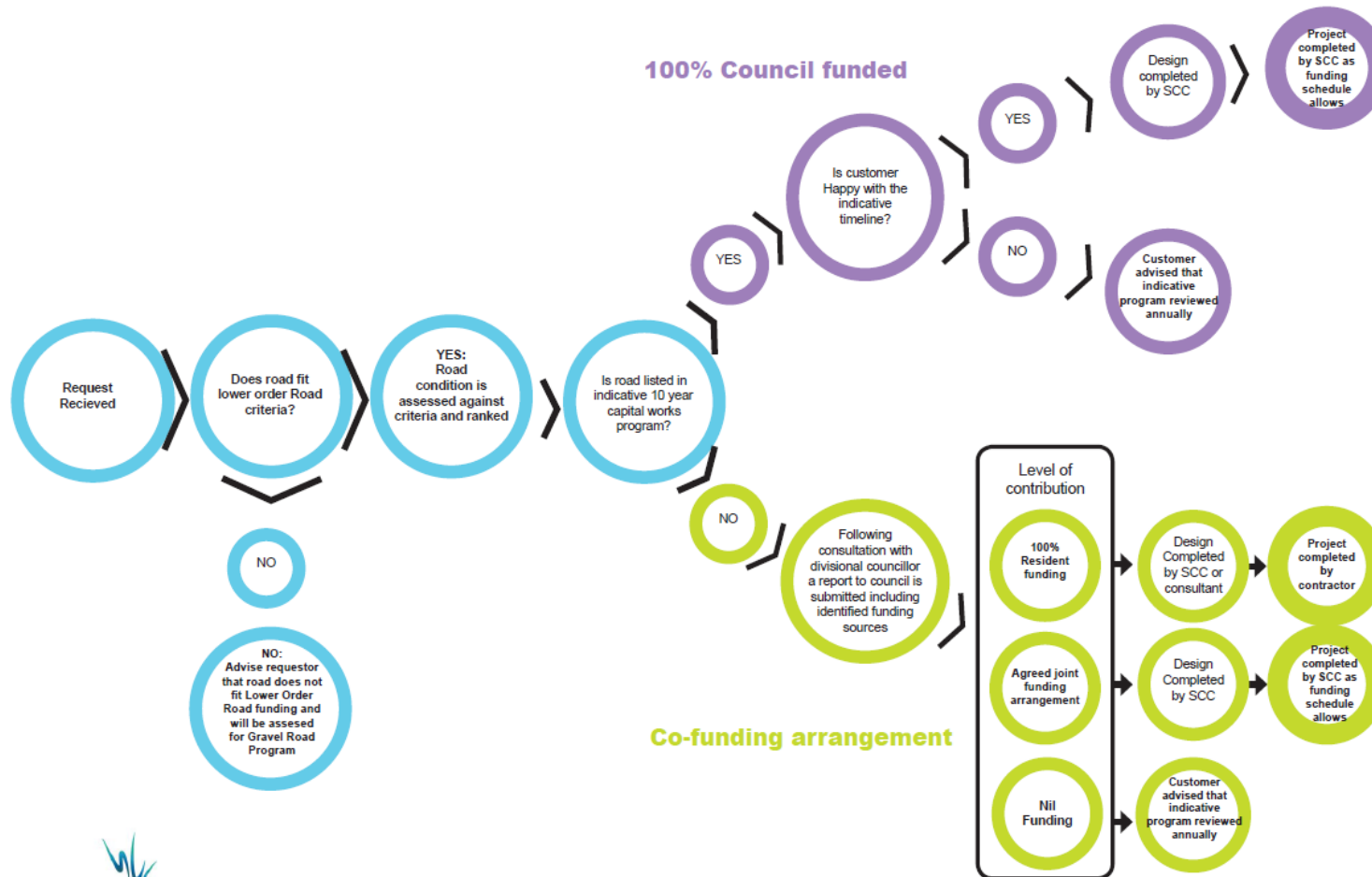


Appendix 3: Lower Order Unsealed Roads Prioritisation Process

# Sunshine Coast Council

## Lower Order Unsealed Roads Prioritisation Process

Appendix 3







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