



COOMALIE COMMUNITY GOVERNMENT COUNCIL

ROAD HIERARCHY CLASSIFICATION

Date Adopted	19/10/21	Resolution Number	2021/10/19/019
Review Timeframe	5 years		
Last Review Date	October 2021	Next Scheduled Review Date	September 2026
Policy Responsibility	Works and Services Manager		

Document History

Version	Date Amended	Details	Date adopted and Resolution Number
1.1	May 2015	Initial Determination of road hierarchy	19/5/2015/007
1.2	Oct 2016	Updated	Not adopted
2	September 2021	Revised in accordance with NT Roads Hierarchy Classification	

Introduction

There are approximately 199kms of maintained roads and 128kms (min.) of unformed and unmaintained roads (known as ungazetted/paper roads) within the Shire. These vary from roads that provide access between centres to roads that only provide access to individual properties.

Modern practice is to split the roads into categories of importance. The level of maintenance and renewal will vary between the categories with the higher categories being maintained to a higher standard and renewal periods tend to be shorter. These are known as the Technical Levels of Service.

It is also important to eventually consider Community Levels of Service as these relate directly to road users. These include community standards such as number of days a road is closed, number of vehicles bogged or the ride of the road. These have not been considered in initialling developing a Road Hierarchy. There is considerable work involved in assessing the levels of service and the trade-offs involved. As an example increasing the ride quality of a gravel road can only be achieved by additional grading. The additional costs involved must be met by the Council.

Glossary

Austrroads	a collective of the Australian and New Zealand transport agencies, representing all levels of agencies
AEP	annual exceedance probability (AEP) The probability that a given rainfall total accumulated over a given duration will be exceeded in any one year.
BWMF	Batchelor Waste Management Facility
DIPL	Department of Infrastructure, Planning and Logistics
Furniture	refers to guideposts and Raised Reflective Pavement Markers (cats eyes)
NTLC	Northern Territory Land Council
RRPM	Raised Reflective Pavement Markers (cats eyes)
vpd	vehicles per day

Previous Council Resolutions

RESOLUTION 15/12/2020/011

That Council;

- a) adopts the Northern Territory Subdivision Development Guidelines; and*
- b) directs the Chief Executive Officer to write to the Chair, Subdivision Development Guidelines Management Committee informing them of Council's decision.*

Moved: Clr. Moyle

Seconded: Clr. Beswick **Carried**

RESOLUTION 21/11/2017/011

That Council acknowledge that as a long term roads strategy it has listed for consideration in the NT 10-year Infrastructure Plan the survey and design of an appropriate road corridor to service the area north of Batchelor township to the Litchfield Council boundary;

And,

that Council direct that staff commence work on expansion of the current road hierarchy classification system that considers those roads not listed on Councils current road assets

plan and currently identified/referred to as minor roads or minor roads easements etc.; with work to commence on a sector basis with the northern areas of Council.

Moved: Clr. Turner

Seconded: Clr. McElwee

CARRIED

RESOLUTION 21/11/2017/012

That Council advise Mr Brendon Bainbridge and others, representing landholders in Collette Creek area of the following decisions:

That as a long term roads strategy Council has listed for consideration in the NT 10-year Infrastructure Plan the survey and design of an appropriate road corridor to service the area north of Batchelor township to the Litchfield Council boundary; and also is reviewing its current Road Assets Plan Hierarchy and classification system to assess those roads currently classed as minor roads only;

And,

that Council on a one-off basis is willing to assist with some utilisation of its internal resources (plant and staff labour) from within the current works program towards laying, spreading of material that is sourced and provided by the landowners.

Moved: Clr. Moyle

Seconded: Clr. Beswick

CARRIED

RESOLUTION 19/05/2015/007

That Council adopt the Road Hierarchy attached to the report and that it is reviewed at least once during the term of Council.

Moved: Clr. Gray

Seconded Clr. Corliss

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Austrroads Classification

The Department of Infrastructure, Planning and Logistics Standard Drawing CS3003 classifies road types (as per Austrroads classification) for rural environments based on vehicles per day. See Table 1.

For Township Urban Areas the Streets are Classified as per Page 9 of the Subdivision Guidelines (which has been adopted by Council). All Township Streets are classed as Category B Street.

Table 1 Extract from DIPL Standard drawing CS3003

RURAL ENVIRONMENT

TYPICAL CROSS SECTIONS - RURAL ENVIRONMENT							
ROAD CLASSIFICATION	AUSTRROAD CLASS	TYPE CROSS SECTION	A	C		B	COMMENTS
			CARRIAGE WAY WIDTH (m) (INCLUDING MEDIAN)	WIDTH (m)	SURFACE	SEAL/ GRAVEL WIDTH (m)	
RURAL - NATIONAL HIGHWAY	CLASS 1	TYPE B	11.0	2 x 3.5	SEALED	8.0	NATIONAL STANDARDS UNDER REVIEW. SEAL WIDTH MAY BE INCREASED TO 9.0m DEPENDING ON LOCAL ISSUES
RURAL ARTERIAL	CLASS 3	TYPE B	10.0	2 x 3.5	SEALED	8.0	> 1000 VPD - 20 YEAR PROJECTED VOLUMES, SEE NOTE 1
RURAL SECONDARY ROADS	CLASS 4	TYPE B	9.0	2 x 3.0	SEALED	7.0	< 500 VPD - 20 YEAR PROJECTED VOLUMES, SEE NOTE 1
RURAL SECONDARY ROADS	CLASS 4	TYPE C	9.0	2 x 3.0	GRAVELLED	6.0	SEE NOTE 2
RURAL - LOCAL	CLASS 5	TYPE B	9.0	2 x 3.0	SEALED	7.0	FOR UNSEALED ROADS A 9.0m CARRIAGEWAY MAY BE APPROPRIATE IF FUTURE SEALING IS FORESEEABLE. SEE NOTE 2.
		TYPE C	8.0	2 x 3.0	GRAVELLED	6.0	
RURAL - SUBDIVISIONS	REFER TO CS3002						REFER TO DEVELOPMENT GUIDELINES BY THE TRANSPORT INFRASTRUCTURE PLANNING DIVISION.
PASTORAL ACCESS ROADS							
PASTORAL 1	CLASS 5	TYPE C	4.0	1 x 4.0	FORMED	-	SINGLE USER ACCESS
PASTORAL 2	CLASS 5	TYPE C	6.0	1 x 6.0	FORMED	-	MULTI USER ACCESS FOR UP TO 3 PROPERTIES
PASTORAL 3	CLASS 5	TYPE C	8.0	2 x 3.0	GRAVELLED	6.0	PROVIDES ACCESS TO GREATER THAN 3 PROPERTIES

TABLE AS PER THE DEPARTMENT'S POLICY FOR STANDARD ROAD CROSS SECTIONS - APRIL 2015 - VERSION 1.0

RURAL ENVIRONMENT NOTES:

1. FOR PREDICATED FUTURE VOLUMES OF 500 - 1000 VPD THE STANDARD WILL DEPEND ON TRAFFIC MIX (NUMBERS OF ROAD TRAINS/CARAVANS/BUSES) AND TOPOGRAPHY AND WILL BE ASSESSED ON A CASE BY CASE BASIS. SEAL WIDTHS MAY ALSO BE INCREASED DEPENDING ON LOCAL ISSUES SUCH AS SEASONAL VARIATIONS (TOURISM) AND ENVIRONMENT.
2. THE DECISION IN REGARD TO SEALED VERSUS GRAVEL STANDARD FOR A PARTICULAR ROAD WILL DEPEND ON FACTORS SUCH AS PROPOSED USE (I.E HORTICULTURAL), ENVIRONMENT, PREDICTED USE AND THE LIKE AND SHOULD BE REFERRED TO TRANSPORT INFRASTRUCTURE PLANNING DIVISION.

Rural-National Highway and Rural Arterial

There are a number of roads within the Shire which are Classed Rural-National Highway or Rural Arterial. These roads are controlled by the NTG and as such, Council has no role in constructing or maintaining these roads and these roads will not be discussed further in this document.

These roads are:

- Stuart Highway
- Batchelor Road
- Rum Jungle Road
- Litchfield Park Road
- Ringwood Road

- Marrakai Road
- Dorat Road
- Daly River Road

Rural Secondary Road Class 5 Type B and C

Council's major roads come under this classification. These roads link the major regions of the Shire and/or traverse from one part of the Shire to another.

All Council Roads have less than 500vpd and thus the sealed roads are classed as Type B and the unsealed roads are classed as Type C.

See Appendix A for typical cross-sections

Cheeney Rd	from Solomon Rd to Milton Rd	10.4km
Chinner Road	from Stuart Hwy to Heather Lagoon Road	7.6km
Coach Rd	from Rum Jungle Rd to Miles Rd	2.9km
Coach Rd	from Milton Road to Stuart Hwy	11.2km
Crater Lake Rd	from Batchelor Rd to Stuart Hwy	4.4km
Heather Lagoon Rd	from Chinner Rd to Marrakai Rd	6.8km
Miles Road	from Coach Rd to Solomon Rd	3.8km
Milton Rd	from Cheeney Rd to Coach Rd	8.4km
Solomon Rd	from Miles Rd to Cheeney Rd	4.5km

Standards

Formation	9.0m formation
Lane width	3.0m
Seal width	7.0m
Furniture	Signage as required Guideposts RRPM's yellow along centreline around corners Red and white at road edges at culverts All installed as per DIPL Standards
Drainage	Preferably box culverts designed for 10% AEP Concrete floodways
Posted speed	80kph in all areas and 60kph within township boundaries or as gazetted
Design speed	20kph above posted speed
Design strength	As per DIPL Standard Specifications. Minimum no weight restrictions
Line marking	Centreline

Renewal Periods

Formation	Indefinite
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Gravel under seal	80 years
Gravel not sealed	20 years
Reseals	15 years
Furniture	Inspected yearly and replaced as necessary
Line marking	15 years
Drainage	Indefinite

Maintenance

Seal patching	3 times per year
Grading	2 per year
Shoulder slashing	1 per year
Drainage	Inspected once a year and blockages cleared
Furniture	Inspected yearly and replaced as necessary

Comment

All these roads are sealed except for Heathers Lagoon Road. If funds become available, this road should be listed as the highest priority for construction.

Furniture for these roads is currently not to the required standard.

Seals deteriorate in the NT due to low vehicle numbers and the heat. Literature on this subject is very sparse. One site consulted was The Local Government & Municipal Life Knowledge base.

Bundeberg Regional Council has adopted a useful life span of 15 years. As their climate would be similar to this Shire a useful of 15 years is recommended.

Roads Local Class 4 Type B and C

Roads Local collect traffic from pastoral roads and from properties along the Roads Local and feed into Rural Secondary Roads. They also provide access for the public to facilities such as the Waste Management Facilities or recreation areas.

See Appendix A for typical cross-sections

Chinner Rd	from Heather Lagoon Rd to end	2.8km
Finlay Rd	from Coach Rd to end	0.6km
Haynes Road	from Stuart Hwy to end	10.7km
Miles Rd	from Solomon Rd to Perreau Rd	4.1km
Poett Rd	from Litchfield Park Rd to Lake	2.5km
Sargent Rd	from Miles Rd to BWMF	0.5km
Strickland Rd	from Stuart Hwy to end	10.3km

Standards

Formation	9.0m formation
Lane width	3.0m
Seal width	7.0m
Furniture	Signage as required Guideposts RRPM's yellow along centreline around corners Red and white RRPM's at road edges at culverts All installed as per DIPL Standards
Drainage	Preferably box culverts designed for 10% AEP Asphalt floodways
Posted speed	80kph in all areas and 60kph within township boundaries or as gazetted
Design speed	20kph above posted speed
Design strength	As per DIPL Standard Specifications. Preferably no weight restrictions
Line marking	Centreline

Renewal Periods

Formation	Indefinite
Gravel under seal	80 years
Gravel not sealed	20 years
Reseals	15 years
Furniture	Inspected yearly and replaced as necessary
Line marking	15 years

Maintenance

Seal patching	2 times per year
Grading	2 per year
Shoulder slashing	1 per year
Drainage	Inspected yearly for blockages and cleared as necessary
Furniture	As per DIPL Standard Specifications.

Comment

Most of these roads are gravel. Only 12.6km (39%) are sealed. In the Dry Season dust is a common complaint and in the Wet Season boggy roads are a common complaint. It is unlikely that they will be sealed unless there is a special case for sealing. These may include areas which result in high annual maintenance costs such as floodways or areas which may be susceptible to wash outs.

Pastoral Roads 1 – 3 Class 5 Type C

Pastoral Roads provide access to both large pastoral properties and rural lifestyle properties.

All roads have a Type C cross section.

The roads are classified as per the number of properties that front the road.

For roads serving 4 or more properties pavement consists of a 6.0m gravelled road surface.

For roads serving 1 to 3 properties the roads pavement consists of a 6.0m formed road surface.
 For roads serving 1 property the road pavement consists of a 4.0m formed road surface.

See Appendix A for typical cross-sections

Banyan Road	from Miles Road to end	2.9km
Bevan Rd	from Litchfield Park Rd to Lithgow Rd	1.6km
Boundary Road	from Shire Boundary to east 7.35kms	7.4km
Cadogan Rd	from Chinner Rd to end	2.7km
Carr Rd	from Milton Rd to end	1.1km
Cheaney Rd North	from Solomon Rd to end	4.8km
Coach Rd	from Perreau Rd to end	1.2km
Coach Rd	from Perreau Rd to Milton Road	5.6km
Echidna Rd	from Cadogan Rd to end	1.5km
Ferne Rd	from Milton Rd to Milton Rd	0.9 km
Fireball Rd	from Heather Lagoon Rd to end	0.2km
Fowler Rd east	from Coach Rd to Finnis River	5.3km
Fred Hardy Rd	from Stuart Hwy to End	2.7km
Kerr Rd	from Cheaney Rd to Nolan Rd	0.4km
Lithgow Rd	from Bevan Rd	3.4km
Little Rd	from Kerr Rd to end	0.6km
Meneling Rd	from Rum Jungle Rd to end	1.6km
Milton Rd (west)	from Cheaney Rd to end	2.5km
Munz Rd	from Ringwood Rd to End	3.6km
Nolan Rd	from Kerr Rd to end	0.7km
No Name Road	from Cheaney Rd to end	1.6km
Otto Creek Rd	from Owen Lagoon Rd to end	6.3km
Owen Lagoon Rd	from Chinner Rd to end	8.8km
Perreau Rd	from Miles Rd to end	1.8km
Sargent Rd	from Miles Road to BWMF	0.2km
Scott Rd	from Litchfield Park Rd to end	2.7km
White Rd	from Lithgow Rd	1.4km
Windmill Rd	from Litchfield Park Rd	0.4km
Youth Camp Rd	from Batchelor Rd	0.5km

Standards

Formation	3 or more properties 8.0m 2 properties 6.0m 1 property 4.0m
Lane width	3 or more properties 6.0m 2 properties 6.0m 1 property 4.0m
Seal width (if sealed)	n/a
Gravel width	6.0m

Furniture	signage as required guideposts at culverts
Posted speed	80kph in all areas and 60kph within township boundaries or as gazetted
Design speed	20kph above posted speed
Design strength	Weight restrictions during the wet season. Recommended 100mm of gravel (patches only)
Line marking	Nil

Renewal Periods

Formation	Indefinite
Gravel under seal	80 years
Gravel not sealed	20 years
Furniture	Inspected yearly and replaced as necessary

Maintenance

Grading	1 per year (as needed but not more than once every two years)
Shoulder slashing	as needed
Drainage	Inspected yearly for blockages and cleared as necessary
Furniture	Inspected yearly and replaced as necessary

Urban Roads

All roads located within the Townships of Adelaide River and Batchelor are classed as Urban Roads.

The NTG Standard Drawing CS3003 has a classification for urban roads. But the typical cross-sections detail dual carriageways for all types. This is not appropriate for the Shire's Urban Roads. A more appropriate document for a typical cross section is the Planning Subdivision Guidelines. Although the Subdivision Guidelines are for new subdivisions they are the most appropriate cross section for the Shire's Urban Roads.

Under the Subdivision Guidelines, all of Council's Urban Roads are Classified as Category B roads.

The typical cross section for these road types is shown in Appendix A.

Roads identified

Batchelor	50,860m ² of sealed streets.
Adelaide River	28,110m ² of sealed streets

The minimum standard should be

Formation	Kerb and channel
Lane width	3.5m
Seal width	7.0m
Gravel width	5.6m

Furniture	Signage as required Streetlighting RRPM's yellow at centreline at intersections
Posted speed	60kph within township boundaries or as gazetted
Design speed	20kph above posted speed
Line marking	At intersections

Renewal Periods

Formation	Indefinite
Gravel under seal	80 years
Reseals	15 years
Drainage	50 years
Furniture	Inspected yearly and replaced as required

Maintenance

Seal patching	2 times per year
Drainage	Inspected yearly for blockages and cleared as necessary
Furniture	Inspected yearly and replaced as required

Comment

Urban roads are located in the towns of Adelaide River and Batchelor. They are almost all sealed. Some have kerb and guttering and some have stormwater drainage incorporated.

Other

Council has numerous named and unnamed road reserves where no constructed/formed road exists or it is just a track utilised by ATV's or 4 wheel drives. Officers are currently undertaking a project to identify all these reserves. Currently the length identified is 128km.

It should be noted that Council does not receive any funds from the Financial Assistance Grants Scheme to undertake works within these road reserves.

Council receives many complaints from purchasers of lots fronting these roads regarding accessibility issues, particularly in the wet, when most of these roads are impassable. It should be noted that these roads are Legacy Roads inherited from Northern Territory Government when Council was formed. The Establishment Package was inadequate in providing funds to address these issues.

Most of these roads are not surveyed, not fenced and not cleared and with no formation.

At the very least these roads should provide a fire break function by providing a 5m wide cleared path.

The Chief Executive Officer and the Project Manager have engaged with NTLC regarding the opening up of the Road Corridor to the north of Batchelor.

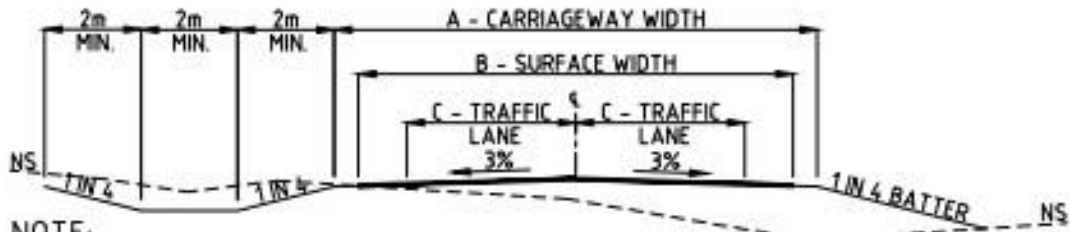
Reference documents

Council Policy 5.5 Roads Version 3

NTG Civil Standard Drawing CS3003 Amend 2

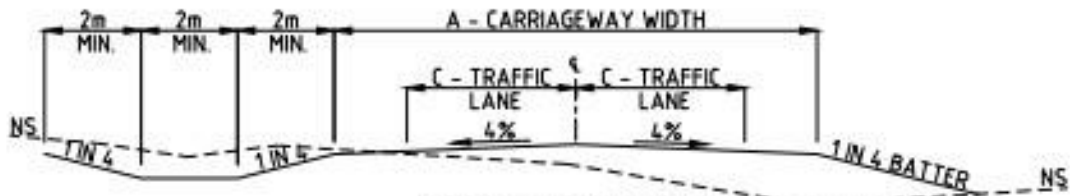
NTG Subdivision Development Guidelines Standard Drawing SS1004 Amend 2

APPENDIX A TYPICAL CROSS SECTIONS



NOTE:
PAVEMENT AND SEAL TO EXTEND A MINIMUM OF 1.0m IN TO THE MEDIAN. SHOULDERS TO BE SEALED, MINIMUM 1.0m.

**CROSS SECTION TYPE B
RURAL SEALED ROADS**



**CROSS SECTION TYPE C
RURAL UNSEALED ROADS**

