

## LEVEL OF SERVICE ROAD CLASSIFICATION POLICY

Subject: Road Service & Classification Ref: Public Works Code: 32

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The County of Northern Lights has prioritized best practices for asset management, maintaining fiscal responsibility, and maximizing ratepayer value regarding investments in the County's road system. The goals of the Level of Service Road Classification Policy are to:

1. Guide long-term asset management and future growth and development in the County.
2. Balance construction and maintenance road costs, public expectations, and different road uses by setting a Level of Service for each roadway classification.

These guidelines will ensure that road maintenance, capital investment, and land development patterns serve the best interests of the entire County.



Chief Elected Official



Chief Administrative Officer

This policy identifies and defines a Level of Service for six separate road classes. These road classes shall be used to categorize each road within the County. The policy also identifies the process for changing the assigned class of a road if need be.

## **A. Level of Service Road Classification Policy Goals**

### **1. GOAL: Guide Long Term Asset Management and Future Growth and Development in the County**

DISCUSSION: In 2018, Council adopted the Municipal Asset Management Policy with the intent of updating and implementing further policy to promote asset management best practices. This Policy is part of a system of strategic development, road bans, weight limits, and road allowance agreements that will be applied in combination with the County's maintenance activities to protect the roadway network from excessive wear and tear.

Previously, there was no long-term road network asset management plan in place, leading to a reactionary approach to road construction and maintenance, and no prioritization structure that guides roadwork. The County of Northern Lights consists of a vast area of over 20,755 km<sup>2</sup> serviced by over 2,000 km of roads. This creates unique challenges when constructing and maintaining the County's road network. Given the geographical constraints and a diverse range of road users, providing equal Level of Service to each County maintained road is not economically feasible. Council and Administration are working towards setting an appropriate Level of Service for each road in the County's network.

**POLICY A.1: The County shall assign a classification for each road within its boundary to be proactive about asset management, and to set an appropriate Level of Service for each road class based on use, users, safety, and road conditions. These classifications shall be presented on a Road Use Classification Map.**

### **2. GOAL: Balance Construction and Maintenance Road Costs, Public Expectations, and Different Road Uses by Setting a Level of Service for each Roadway Classification.**

DISCUSSION: Transportation related expenses account for approximately 40% of the County's current operating budget. Council has recognized that costs associated with reactionary road maintenance measures and development accessed by roads not built for the approved land uses are putting unsustainable demands on the County's finances.

**POLICY A.2: The County will maximize its resources by planning and investing in maintenance projects and practices that are effective over the long term, and reduce the need for major repairs and protect the effectiveness of major repairs.**

## **B. Proposed Level of Service Approach**

The County's approach to Level of Service Road Classification is:

1. To continue to provide a safe transportation network for the travelling public, including the movement of goods.
2. To continue to ensure the longevity of the County's investments in roadway infrastructure.
3. To continue to make strategic investments in roadway construction.
4. To provide a Level of Service, of construction and maintenance, in accordance with roadway usage.

## **C. Level of Service Roadway Classifications**

1. The following six Roadway Classifications have been identified and defined in the following policy sections:
  - a. Provincial Highway;
  - b. Resource Road;
  - c. Collector Road;
  - d. Residential Road;
  - e. Recreational Road; and
  - f. Field Access Road.

Each Road Classification that is under the jurisdiction of the County has maintenance and construction standard specifications for that class.

**POLICY C.1: In the event that a proposed, existing, or future road does not meet the construction standards of the Road Classification that it has been assigned, the County shall consider updating the road to the Road Classification's desired construction standard when the need for re-construction or upgrading is identified.**

**POLICY C.2: The County shall require the dedication of a 5.0m road right-of-way at the time of subdivision as per the County's Municipal Development Plan Policy 9.2.4 in order to achieve 30 metre rights-of-way wherever possible.**

## **D. Provincial Highway**

**Provincial Highways are owned and operated by Alberta Transportation and maintenance and construction operations are not under the control of the County.** These roads:

1. Generally, have the highest traffic volume in the County.
2. Connect traffic from one Provincial Highway to another, and community to community.
3. Serve both local and through traffic.

**POLICY D.1: The County will continue to work collaboratively with Alberta Transportation to ensure Provincial Highways are designed, built, and maintained to a Level of Service that meets the needs of the County and its residents.**

## **E. Resource Road**

Resource Roads primarily support industrial uses within the County. These roads:

1. May qualify for the Provincial Resource Road Program.
2. May have Industry involvement in the maintenance of the road.
3. Contain large volumes of truck traffic for resource extraction.
4. Have Road Use Agreements in place to assist the County with maintenance.
5. Are shared with residential, commercial, forestry, energy, agricultural, hunting, and other recreational uses.

**POLICY E.1: The County may consider submitting a Resource Road for the Provincial Resource Program and other applicable government funding in order to share the cost of industrial development.**

**POLICY E.2: The County may consider entering into Road Use Agreements with road users and adjacent landowners in order to share the costs of road upgrades, managing road use, and maintenance.**

**POLICY E.3: The County shall allow County staff to use their discretion to determine if additional maintenance is required above and beyond the listed desired standard.**

**Maintenance and Construction Standards:**

<b>Maintenance</b>		
	<b>Desired</b>	<b>Minimum</b>
<b>Priority</b>	High	
<b>Re-gravel Frequency</b>	Every Three years plus spot gravel on problem areas	Every three years
<b>Mowing Frequency</b>	Full cut every second year	N/A
<b>Summer Grading Frequency</b>	Monthly during summer	N/A
<b>Sign Requirements</b>	TAC/AT Standard Clearly indicate speed changes	N/A
<b>Bridge Crossings</b>	AT Standard	N/A
<b>Snow Plowing</b>	Cleared within 72 hours of major snow event. See Snowplowing of Public/private roadways policy.	N/A
<b>Construction Standards</b>		
	<b>Desired</b>	<b>Minimum</b>
<b>Embankment Height</b>	1.3m	1.0m
<b>Useable Road Width</b>	9.5m	9.0
<b>Side Slope</b>	4:1	3:1
<b>Back Slope</b>	3:1	2:1
<b>Posted Speed</b>	80km/h	80km/h
<b>Right-of-Way</b>	30m	20m

## F. Collector Road

Collector Roads connect traffic from surrounding Residential Roads to Provincial Highways. These roads:

1. Have higher traffic volumes than surrounding residential roads.
2. Are shared with residential, commercial, forestry, energy, agricultural, hunting, and other recreational uses.

**POLICY F.1: The County shall prioritize the maintenance of Collector Roads over Residential Roads given their volume and variety of users.**

### Maintenance and Construction Standards:

<b>Maintenance</b>		
	<b>Desired</b>	<b>Minimum</b>
<b>Priority</b>	High	
<b>Re-gravel Frequency</b>	Every three years plus spot gravel on problem areas	Every three years
<b>Mowing Frequency</b>	Full cut every second year	N/A
<b>Sign Requirements</b>	TAC/AT Standards	N/A
<b>Bridge Crossings</b>	AT Standard	N/A
<b>Snow Plowing</b>	Cleared within 72 hours of major snow event. See Snowplowing of Public/private roadways policy.	N/A
<b>Construction Standards</b>		
	<b>Desired Standard</b>	<b>Minimum Acceptable</b>
<b>Embankment Height</b>	1.0m	1.0m
<b>Useable Road Width</b>	8m	8m
<b>Side Slope</b>	4:1	3:1
<b>Back Slope</b>	3:1	2:1
<b>Posted Speed</b>	80km/h	80km/h
<b>Right-of-Way</b>	30m	20m

## G. Residential Road

Residential Roads provide access to year-round residential development. These roads:

1. Are low volume.
2. Are not typically used for long-distance travel.
3. Are shared with residential, commercial, forestry, energy, agricultural, hunting, and other recreational uses.

**POLICY G.1:** At the discretion of Council, bridge crossings that are narrower than Alberta Transportation standard may be considered.

**POLICY G.2:** The County may include conditions for development or subdivision approvals that require a development agreement to widen Residential Roads that do not meet the County's minimum or desired standard to 7.5 or 8 metres based on the proposed road use.

### Maintenance and Construction Standards:

<b>Maintenance</b>		
	<b>Desired</b>	<b>Minimum</b>
<b>Priority</b>	Medium	
<b>Re-gravel Frequency</b>	Every three years	Every three years
<b>Mowing Frequency</b>	Full cut every second year	N/A
<b>Summer Grading Frequency</b>	Every Six Weeks	Twice per summer
<b>Sign Requirements</b>	TAC/AT Standards	N/A
<b>Bridge Crossings</b>	AT Standard or narrower at Council's discretion	N/A
<b>Snow Plowing</b>	Cleared within 72 hours of major snow event. See Snowplowing of Public/private roadways policy.	N/A
<b>Construction Standards</b>		
	<b>Desired</b>	<b>Minimum</b>
<b>Embankment Height</b>	1.0m	0.8m
<b>Useable Road Width</b>	7.5m or 8m depending on road uses	7m
<b>Side Slope</b>	3:1	3:1
<b>Back Slope</b>	3:1	2:1
<b>Posted Speed</b>	80km/h	80km/h
<b>Right-of-Way</b>	30m	20m

## I. Field Access Road

Field Access Roads provide access to undeveloped agricultural fields or areas with **no year-round residential development**. These roads:

1. Are primarily used for agricultural field access.
2. Generally carry only localized traffic volume, but may experience higher volumes periodically (ie. during seeding, harvest, or hunting seasons).
3. Can often be a no-exit road.
4. Are shared with forestry, energy, agricultural, hunting, seasonal cabins and/or campsites, and other recreational uses.

**POLICY I.1: The County shall not permit year-round residential development to be constructed on lands that can only be accessed via Field Access Roads.**

**POLICY I.2: Where possible, the County shall minimize maintenance on Field Access Roads in order to reduce the County’s transportation operating costs.**

### Maintenance and Construction Standards:

<b>Maintenance</b>		
	<b>Desired Standard</b>	<b>Minimum Acceptable</b>
<b>Priority</b>	Low	
<b>Re-gravel Frequency</b>	Every six years	Every six years
<b>Mowing Frequency</b>	Full cut every second year	N/A
<b>Summer Grading Frequency</b>	Minimal, at Public Works Supervisor’s discretion	N/A
<b>Sign Requirements</b>	None	N/A
<b>Bridge Crossings</b>	No bridge crossings permitted	N/A
<b>Snow Plowing</b>	No winter plowing, only winging in the spring	N/A
<b>Inspection Frequency</b>	By complaint only, with discretion of Public Works Supervisor	N/A
<b>Construction Standards</b>		
	<b>Desired Standard</b>	<b>Minimum Acceptable</b>
<b>Embankment Height</b>	0.6m	0.5m
<b>Useable Road Width</b>	6 m	6m
<b>Side Slope</b>	3:1	3:1
<b>Back Slope</b>	2:1	2:1
<b>Posted Speed</b>	None	None
<b>Right-of-Way</b>	20m	20m



## H. Recreational Road

Recreational Roads provide **summer** access to recreational subdivisions and properties. These roads:

1. Are not maintained by the County in winter.
2. Are low volume.
3. Are not typically used for long-distance travel.
4. Are shared with hunting, river accesses, seasonal recreational cabins and/or campsites, and other recreational uses.

**POLICY H.1: The County shall not permit the development of permanent residences on Recreational Roads.**

**POLICY H.2: The County shall not provide winter road maintenance, including but not limited to snowplowing and sanding, on Recreational Roads.**

**POLICY H.3: The County shall not permit bridge crossings on Recreational Roads.**

### Maintenance and Construction Standards:

<b>Maintenance</b>		
	<b>Desired Standard</b>	<b>Minimum Acceptable</b>
<b>Priority</b>	Low	
<b>Re-gravel Frequency</b>	Every six years	Every six years
<b>Mowing Frequency</b>	None	N/A
<b>Summer Grading Frequency</b>	Minimal, at Public Works Supervisors discretion	N/A
<b>Sign Requirements</b>	None	N/A
<b>Bridge Crossings</b>	No bridge crossings permitted	N/A
<b>Snow Plowing</b>	None	N/A
<b>Construction Standards</b>		
	<b>Desired Standard</b>	<b>Minimum Acceptable</b>
<b>Embankment Height</b>	0.6m	0.5m
<b>Useable Road Width</b>	6 m	6m
<b>Side Slope</b>	3:1	3:1
<b>Back Slope</b>	2:1	2:1
<b>Posted Speed</b>	None	None
<b>Right-of-Way</b>	20m	20m

## **J. Changing Road Classifications**

As uses, users, and volumes change on County roads, roads may need to be assigned to another classification so that the Level of Service is appropriate to the road usage. Should re-classification be required, the following process shall apply:

**A map amendment to the County's Level of Service Road Classification Map, included as part of The Level of Service Road Classification Policy, shall be required. The proponent will be required to submit the amendment application. The County shall require and consider, but is not limited to, the following items in its review of the application:**

- 1. Financial Impact Assessment;**
- 2. Transportation Impact Assessment;**
- 3. Development Patterns;**
- 4. Road Users;**
- 5. Road Uses; and**
- 6. Road Conditions.**

### **Administration**

1. Refer to Municipal Asset Management Policy for further asset management best practices.
2. Refer to Level of Service Road Classification Map to identify the class of each road.
3. Refer to the County's General Municipal Servicing Standards for additional maintenance requirements for each Road Classification.
4. Refer to the County's Planning and Development policies and regulations for additional development requirements.
5. Refer to the Schedule of Fees for Level of Service Road Use Classification Map Amendment Costs.