



BIG LAKES COUNTY POLICY

TITLE: General Servicing Standards Policy	
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Policy Statement

The General Servicing Standards (GSS) is intended to provide specific guidelines to assist the County and Developers in the design, preparation and submission of plans and specifications for construction of municipal improvements and systems that will meet the servicing requirements for development within Big Lakes County.

Policy

Refer to the General Servicing Standards attached to this policy.

Reeve

Chief Administrative Officer

Date of Final Signature



GENERAL
SERVICING
STANDARDS

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Revision Table

Date	Motion	Description of Change	File Name
Dec. 11/2019	2019-22-678	Council Adoption	General Servicing Standards – December 2019 (Approved by Council)
April 14/21	2021-07-113	Section 3.1.1 Rural Roadway Classification – Country Residential/Bareland Condominium Roadway	General Servicing Standards – December 2019 (Approved by Council)



1. General Requirements

1.1. Background

This document describes in detail the standards and range of infrastructure that is required for the successful completion of subdivision and development within Big Lakes County. This is a detailed document that is for use by project managers and developer engineers engaged with the task of road construction, installation of street lights, utility lines, storm water management ponds and other infrastructure requirements of the County.

This document is intended to work in tandem with the Big Lakes County Land Use Bylaw and Municipal Development Plan.

The general purpose of this General Servicing Standards (GSS) for Big Lakes County is to provide guidelines for developers within the County to follow when installing core-services:

- Roads and Trails,
- Low-pressure/gravity sewer systems,
- Storm water management systems, and
- Water distribution systems.

The GSS will ensure that Big Lakes County is provided with a quality product that will meet an acceptable long-term life expectancy while being efficient and practical.

1.2. Definitions

“Adjacent”- Shall refer to lands next to the proposed development area.

“Alberta Land Surveyor”- shall mean the professional land surveyor who is registered and authorized to practice land Surveying under the Land Surveyors Act through the Alberta Land Surveyors Association.

“Applicant” – shall mean a person or entity who has applied for approval of a proposed subdivision, or to develop or service an existing parcel of land, whether as the owner or an agent for the owner of the land included therein.

“Approving Authority” –means the Council, Development Officer, Subdivision Officer, the Subdivision and Development Appeal Board or the Municipal Government Board as determined on a case by case basis.

“Building Permit” –means a building permit issued pursuant to the Safety Codes Act, as amended.

“CAO ” –Big Lakes County employee designated by the title Chief Administrative Officer or their designated representative.

“Construction Completion Certificate” (CCC) – this document is required at the completion of Construction Completion Inspection and, when approved, initiates the warranty period under the Developer’s Agreement, issued by the County.



“Construction Drawings” – shall mean those Engineering plans, profiles, reports and specifications prepared by the Consulting Engineer, showing the details of the installation of the various municipal improvements within the Development, conforming to Big Lakes County guidelines and Municipal Servicing Standards. Contract drawings must be stamped by the Consulting Engineer and be “Issued for construction”.

“Construction Specifications” – shall refer to the documents prepared by the Developer’s Engineer specifying the legal, administrative, and technical aspects of the infrastructure improvements, all of which shall conform to the minimum requirements as outlined in Big Lakes County Municipal Servicing Standards.

“Contractor” – shall mean any person, persons or corporation who undertake the construction of local improvements or municipal improvements on behalf of the Developer, owner, or municipality.

“Council” - Shall mean persons duly elected to the Council of Big Lakes County.

“Descriptive Plan” – Shall mean a plan prepared by an Alberta Land Surveyor and where only a minimal amount of field work is conducted, so as to describe a parcel of land to be subdivided and as permitted by the Alberta Land Surveyor’s Act. Subdivision by Descriptive Plan may be considered where the parcel is the first from a quarter section and is square or rectangular in shape, but not where there are multiple lots proposed or where land is to be dedicated for roads and/or reserves.

“Developer” – Shall mean any person or entity that has obtained a subdivision approval or development permit and who has entered into a Development Agreement with Big Lakes County with respect to specific identified lands.

“Developer’s Engineer” – shall mean a qualified Professional Engineer, registered and licensed to practice in the Province of Alberta, who is appointed or engaged by the Developer to be responsible for the design of municipal improvements, preparation of drawings and specifications, and provision of construction supervision during the installation of the local or municipal improvements.

“Development Agreement” – an agreement between Big Lakes County and the Developer or Owner pursuant to Section 650(1) of the Municipal Government Act (“the Act”), as amendment in the case of a development permit approval; or pursuant to Section 655(1) of the Act in the case of a subdivision approval.

“Development Authority” – means the Development Officer, Municipal Planning Commission, or Council, to exercise the duties and powers and perform the functions prescribed in the Land Use Bylaw pursuant to Big Lakes County’s Bylaw.

“Development or Development Area” – the area to be serviced or developed, as delineated in the Developer’s Agreement or Servicing Agreement and may include both onsite and offsite areas of development.

“Development Permit” – a permit issued by Big Lakes County in response to an application specifying legal, administrative, and technical requirements of the Developer for developing lands which shall not generally result in infrastructure which will ultimately fall under the ownership and control of Big Lakes County.



“Development Officer”- shall mean a person or persons appointed and acting on behalf Big Lakes County to regulate orderly development.

“Easement”- An easement, interest or right held by Big Lakes County for purpose of providing utilities, access or drainage.

“Endorsement”- shall mean the final approval from Big Lakes County of a subdivision upon completion of all of the “Conditions of a Notice Approval”.

“Final Acceptance Certificate” (FAC) – final inspection and formal approval by Big Lakes County signals expiry of the maintenance period of each infrastructure improvement outlined in the servicing agreement when approved. The purpose of the FAC is to transfer full ownership and responsibility for an infrastructure improvement from the Developer to Big Lakes County. FAC is issued by the County.

“Final Acceptance Inspection” (FAI)- shall mean an inspection carried out by the Developer and Big Lakes County at the end of the warranty phase of the project to assess any remaining deficiencies prior to the issuance of the “Final Acceptance Certificate.”

“General Design Standards”- shall mean the standards described in this document.

“Geotechnical Report”- shall mean a document prepared by a Geological or Geophysical Professional Engineer licensed to practice in the Province of Alberta and that bears the seals or stamps signed and dated by the professional in accordance with the enactments that govern their profession.

“Grading”- shall mean an operation or process intended to level or to grade the development area to a desired horizontal gradient.

“Higher Density”- means a development that features one or more of the following characteristics:

- developed lot or unit area less than 0.4 ha. (1.0 ac.),
- typical residential density in excess of 2.5 residences/hectare,
- frontages less than 50m. (164 ft.),
- distance between approaches less than 30m (98.4 ft.),

“Internal Road”- shall mean a public roadway, the primary function of which is to provide access to individual sites within a multi-lot subdivision, with the exception of mobile home communities or bare land condominium developments in which the case of internal roads is privately owned.

“Local Improvements, External/Offsite”- shall mean all of the local improvements or the portions thereof to be constructed by the Developer outside of the proposed development as described in the Developer’s Agreement.

“Local Improvements, Internal”- shall mean all of the local improvements or the portions thereof to be constructed by the Developer within the proposed development as described in the Developer’s Agreement



“Local or Municipal Improvements” – all improvements within or related to the Development, including but not restricted to:

- Paved roads, including pavement markings
- Gravel roads including culverts, guardrails
- Sidewalk, curb and gutter
- Storm water management systems and drainage
- Water supply and treatment facilities or upgrades
- Lift Stations
- Sewage treatment and disposal facilities
- Solid Waste disposal or transfer stations
- Paved or gravel lanes
- Water, sanitary, and storm sewer mains
- Water, sanitary and storm sewer service connections
- Franchise utilities, including electrical, street lighting, natural gas, telephone, fibre optics and cable television
- Landscaped boulevards, medians, municipal reserves, trails, parks and public utility lots
- Lot grading
- Paved, concrete or gravel walkways/bikeways
- Park and recreation amenities (E.g. playground equipment, benches etc.)
- Traffic control, street names, subdivision information signs

“Maintenance Period” – see Warranty period

“Municipal Development Plan”- The Council approved planning document that outlines a strategic path to manage regional, urban and rural growth.

“Big Lakes County” – shall mean the Municipality of Big Lakes County in the Province of Alberta.

“Municipality”- shall mean Big Lakes County

“Municipality Property”- shall mean:

- Any property owned or leased by Big Lakes County developed for use as public park, sports field, playground or other recreation area, or
- Undeveloped reserve land as either: reserve, municipal reserve, school reserve, environmental reserve, conservation reserve, community reserve, or combination of reserves, or



- Municipal rights-of-way including all forms of public roadways (roads, lanes, streets, highways), sidewalks, boulevards, road allowances, utility rights-of-way, public utility lots, public spaces, undeveloped rights-of-way and storm water management facilities, bridges, culverts and water bodies, or
- Any property developed as a pathway or park trail system, or
- Any property owned or titled to Big Lakes County including buildings, structures and parking facilities.

“Off-site Levies”- shall mean the monies collected by Big Lakes County from the Developer or industry to assist with the payment of the portion of the off-site services that the development may utilize.

“Plan of Survey”- shall mean a plan prepared by an Alberta Land Surveyor where the boundaries of a new parcel of land are identified by legal survey posts placed at the corners of the lots as dictated by the Alberta Land Surveyor’s Act. A Plan of Survey is required when a “Descriptive Plan” is not permitted by Big Lakes County or as per the requirements of the Land Surveyor’s Act.

“Property”- shall mean any land, building, structures or premises including any personal property located on, over or in the property that is located within the municipal boundaries of the Municipality.

“Private Property”- shall mean land owned by a person, group, corporation or entity that is not a government body.

“Record Drawings”- shall mean design drawings up-dated to accurately show utility and municipal improvements as constructed in the field. Such drawings shall be stamped and signed by the Developer’s Engineer.

“Tentative Plan of Subdivision”- shall mean a drawing prepared by an Alberta Land Surveyor that illustrates the approximate location of all relevant existing and proposed improvements on a lot relative to existing and proposed lot boundaries and natural features.

“Units of Measurement”- shall mean that the standard units of measurement approved by Big Lakes County are System International (metric) only, and any reference to imperial measurement units may be allowed for convenience purposes only.

“Utilities”- shall mean those utilities together with all necessary appurtenances, which are described in the Development Agreement.

“Warranty Period”- a minimum of two (2) year period of time commencing with the issuance of a Construction Completion Certificate (CCC) and ending with the issuance of a Final Acceptance Certificate (FAC), during which time the developer shall be responsible for maintenance in accordance with the Development Agreement and/or Contract documents and reparation of any deficiencies.



1.3. Application of the Municipal Servicing Standards

These Municipal Servicing Standards are applicable to subdivision, road and utility development activity within the Municipal District. Subdivision and development within Big Lakes County generally falls into the following categories for both urban and rural properties:

- Residential
- Recreational
- Commercial
- Industrial

Developments considered as “low impact” by Big Lakes County will be accommodated through a simplified application process as outlined in Section 10: Low Impact Developments. These types of developments typically include:

- First parcel out
- Residential subdivision with four lots or less that would not include municipal water and sewer infrastructure servicing but must meet approach and internal subdivision road requirements as per the Municipal Servicing Standards.

All other residential, industrial, commercial or recreation development regardless of lot numbers would not be considered “low impact” and would need to adhere to all sections of Municipal Servicing Standards.

1.4. Municipal Planning Documents

The following documents provide guidance to the planning of municipal growth. These documents shall be reviewed by the Developer to ensure conformity with the proposed development.

1. Federal Acts or Regulations
2. Regional Plan
3. [Inter-municipal Development Plans](#)
4. [Municipal Development Plan](#)
5. [Area Structure Plans \(Municipal\)](#)
6. [Land Use Bylaw](#)
7. Development Agreement

1.5. Approvals

There are several potential approvals and/or permits required for developments through Municipal, Provincial and Federal legislation and agencies. These may include, but are not limited to:

Federal

- [Impact Assessment Act \(formerly CEAA\)](#)



- [Migratory Birds Convention Act \(MBCA\)](#)
- [Fisheries Act](#)

Provincial

- [Water Act](#)
- [Environmental Protection and Enhancement Act \(EPEA\)](#)
- [Forestry Act](#)
- [Wildlife Act](#)
- [Wetlands Policy](#)
- [Public Lands Act](#)
- [Historical Resources Act](#)
- [Municipal Government Act \(MGA\)](#)
- [Subdivision and Development Regulation](#)
- [Soil Conservation Act](#)

Other

- Alberta Transportation Guidelines
- Alberta Environment Guidelines

1.6. Developer Responsibility

The developer shall be responsible for the following, at their own expense:

- Commissioning of:

Alberta Land Surveyor

- Preparation of Tentative Plan of Subdivision
- Preparation of easements and/or right-of-way
- Preparation of a legal plan

Developer's Engineer and/or other Professionals

- Preparation of Concept Plan or Area Structure Plan
- Preparation of a design brief
- Design of required municipal infrastructure
- Geotechnical investigation
- Material testing
- Biophysical and Environmental assessments
- Other specialty services (E.g. structural, process, hydrological, mechanical, electrical, etc.)
- Design and construction of the required municipal improvements associated with the development, including road widening, internal roads, approach construction to all the lots and remainder of the quarter or remnant parcel.
- Design and construction of water and sewer services when tying into municipal services.
- Design and construction of drainage and stormwater management features.
- Quality control and material testing by an independent third-party qualified professional engineering firm.



- Registration with Alberta Land Titles, all easements including plans and documents for the construction of municipal improvements outside of the municipal rights-of way.

The developer shall be responsible for satisfying all statutory requirements governing such works and obtaining approvals and permits for compliance with those requirements from authorities having jurisdiction.

1.7. Development Procedure

An outline of the major steps and development procedure from subdivision approval to final acceptance are listed, but not limited to, the following:

1. Preparation and submission of proposed plan
2. Pre-Application Meeting (see 1.9)
3. Subdivision or Development Application submitted and reviewed.
4. Submission of a Tentative Plan of Subdivision and design brief.
5. Amendments to the Land Use Bylaw and Area Structure Plan, if necessary.
6. Decision made on development or subdivision application.
7. Development and finalization of easement and Reserve Agreements.
8. Development and finalization of Road Dedication, Widening and Approach.
9. Preparation of detailed Engineering Drawings and Specifications.
10. Approval of Engineering drawings and specifications.
11. Preparation and endorsement of a Developer's Agreement.
12. Execution of a Developer's Agreement.
13. Security deposit for improvements.
14. Preparation and registration of the Legal Plan of Subdivision for endorsement by municipality.
15. Complete construction activities in accordance with the Municipal Servicing Standards and the approved plans and specifications.
16. Submission of As-Constructed Drawings and related data.
17. Inspection by municipality and issuance of Construction Completion Certificate(s) (CCC).
18. Two (2) year warranty period(s).
19. Final overlays, correction of deficiencies.
20. Inspection, Final Acceptance Certificate (FAC) and takeover by Municipality.
21. Release of Financial Security.



1.8. Pre-Application Meeting

The primary purpose of the pre-application meeting is to provide the developer with specific information on application process requirements. The pre-application meeting is intended to provide an opportunity for the Developer to receive preliminary feedback from Big Lakes County including review of the proposed plan.

Pre-application meeting is required for any of the following types of developments:

- Multi-lot subdivisions
- Multi-family residential
- Commercial / Industrial
- Recreation

The Developer shall contact the Planning and Development department for the scheduling and coordination of the pre-application meeting.

1.9. Application Process

1.9.1. Application Form

The subdivision application must be filled out in its entirety and accompanied by the appropriate fees and all required supporting documents. Incomplete applications will be returned and must be completed before they will be officially considered.

The application shall include a Tentative Plan of Subdivision as described below.

When Planning and Development determines that there is sufficient information to render a decision on the application and all comments and concerns from internal and external departments have been, or can be resolved, the application will be forwarded to the Municipal Planning Commission for consideration.

1.9.2. Tentative Plan of Subdivision and Design Brief

Tentative Plan of Subdivision

The intent of the Tentative Plan of Subdivision is to illustrate the key features of the proposed development. This includes proposed lots, roads, drainage and stormwater features, water and sanitary sewer servicing, shallow utilities and recreational amenities (E.g. walkways, parks, etc.).

The developer shall, at their own expense, retain the services of a qualified Consulting Engineer or Alberta Land Surveyor, registered and licensed to practice in the Province of Alberta, who shall be responsible for the design and preparation of Tentative Plan of Subdivision.

The Tentative Plan of Subdivision must show the following:

- The location of all existing improvements, buildings, fencing, and water and sewer servicing with all distances from all property lines.



- The location, dimensions, boundaries of each new lot proposed to be created, and of any proposed municipal/school/conservation/community services and/or environmental reserve parcels.
- The location, dimensions and boundaries of any right-of-way of existing roads and proposed roads.
- The location of existing and proposed access to each new parcel that is to be created as well as the remainder of the titled area.
- Existing treed areas and treed areas proposed to be removed as a result of the subdivision and subsequent development.
- The location and boundaries of the bed and shore of any river, stream, watercourse, lake or other body of water, including seasonal wetlands.
- If the proposed lots are to be serviced by individual wells and private sewage disposal systems, the location of any existing or proposed wells, the location and type of any private sewage disposal systems and the distance from these to existing or proposed buildings and property lines.
- Additional information may be required based upon the nature and complexity of the proposed subdivision.

Additional supporting documentation may be required by Big Lakes County, based upon the nature and complexity of the proposed project.

Design Brief

A design brief shall accompany Tentative Plan of Subdivision. The design brief is the basis upon the creation of the Tentative Plan of Subdivision and shall include calculations to support the proposed servicing of the subdivision (E.g. water distribution system and/or sanitary sewer hydraulic analysis). Supporting assessments, documentation or reports are to be included with the design brief. This may include:

- Area Structure Plan (ASP)
- Heritage Site Assessment
- Sanitary Sewer Analysis
- Supporting Design Calculations
- Surveyed Grading Plan
- Traffic Impact Assessment (TIA)
- Wetland Assessment
- Hydrological Report
- Geotechnical Report
- Stormwater Management Plan (SWMP)
- Environmental and/or Biophysical Assessments

Any report, drawing, or study required in support of an application is to be provided at the developer's expense.



Following the approval of the Tentative Plan of Subdivision, the developer may proceed with a subdivision application and may be required to provide more detailed engineered plan for the proposed subdivision pursuant to the Big Lakes County Municipal Servicing Standards.

1.9.3. Decision on Application

The Municipal Planning Commission, as the Subdivision Authority for Big Lakes County, will decide on the application during one of its regular meetings. The Subdivision Authority will decide on an application within a limited time period from the date of receipt of a complete application.

The Subdivision Authority may:

- Approve the subdivision application, with conditions;
- Refuse the application, and provide reasons for the refusal; or
- Refer the subdivision application back to Planning and Development for further review to consider comments and/or concerns that the Subdivision Authority has raised in considering the application.

The decision of the Subdivision Authority may be appealed in accordance with the Municipal Government Act (MGA).

1.9.4. Easement and Reserve Agreements

As part of subdivision process, the developer may be required to dedicate municipal/school/conservation/community services and/or environmental reserve parcels to the Municipality.

Big Lakes County can require a minimum of 10% of land from the subdivision to be provided for municipal or school reserve or as cash in lieu of land or as a combination thereof.

Environmental reserves may be taken on lands with environmental conditions that may make it unsuitable for development or when sensitive areas need to be protected. The Municipal Government Act stipulates which landforms qualify for environmental reserve dedication.

Reserves are not required when:

- Single lot is to be created from a quarter section of land.
- Land is to be subdivided into lots 16.0 hectares or more and is to be used only for agricultural purposes.
- The land that will be subdivided is 0.8 hectares (2 acres) or less.
- Reserve land, or money in place of it was provided previously for the same piece of land.

1.9.5. Road Dedication, Widening, and Approaches

For a subdivision application, Big Lakes County requires that the developer dedicate road widening to Big Lakes County in accordance with policy along all road right-of-way of the quarter section.



Road dedication shall be by way of a road plan and the cost of preparing and registering the road plan shall be Big Lakes County's responsibility.

The developer is responsible to provide access into new parcels and to the remaining balance of the quarter section or remnant parcel by upgrading existing approaches or installing new approaches, as well as any internal access roads.

1.10. Development Agreement

When a development permit or subdivision has been approved with the condition of a Development Agreement, the developer shall contact Big Lakes County to commence the process.

The Development Agreement is between Big Lakes County and the Developer and outlines details about the intended process for development that may include plans, servicing, financial implications, and various Municipal requirements that need to be met.

The Developer must enter into the Development Agreement prior to constructing any improvements or infrastructure

1.10.1. Security Deposit for Improvements

If the Developer wishes the County to register the plan of subdivision prior to the issuance of the Final Acceptance Certificate, a Security deposit will be required. No deposit is required until such time as the Developer wishes the subdivision plan to be registered.

The Security deposit shall be in the form of cash, an Irrevocable Letter of Credit, or bond acceptable to Big Lakes County.

The security deposit shall be a guarantee for the performance of the requirements and obligations of the developer as set forth in the Developer's Agreement and shall be retained by Big Lakes County until the issuance of the Final Acceptance Certificate.

The Developer shall provide Big Lakes County with a security deposit of 125% of the estimated remaining construction, materials and engineering costs for all developments to be constructed within Big Lakes County (with no interest). Where a Construction Completion Certificate has been issued, and the only remaining requirement under the Development Agreement is the Warranty period, the Security Deposit will be 5% of the estimated construction costs of the development as determined by the Director of Public Works.

Within 90 days of the warranty completion date, a final acceptance inspection will be completed. If there is any noted warranty work required, the work will be completed prior to the warranty completion date. Once warranty work is completed to the satisfaction of the County, a Final Acceptance Certificate (FAC) will be issued, Big Lakes County will assume the asset and any remaining security shall be refunded back to the developer.



1.11. Construction Phase

1.11.1. Inspections

Weekly, throughout the construction process, the developer will submit detailed engineered progress reports completed by the Consulting Engineer.

The detailed engineered reports will be reviewed by Public Works department with any deficiencies noted and pre- and post-inspections conducted to ensure that construction meets municipal requirements in accordance with the Municipal Servicing Standards.

1.11.2. Construction Completion Certificate

The Construction Completion Certificate will be issued after construction of the works outlined in the Development Agreement has been completed to the satisfaction of Big Lakes County and all required submissions and reporting have been provided. The date of issuance of a CCC will commence the warranty period.

1.12. Post Construction Phase

1.12.1. Record Drawings

Within 60 days of issuance of the Construction Completion Certificate (CCC), record drawings of the constructed works must be provided to Big Lakes County for review and approval.

1.12.2. Warranty Period

The Warranty Period shall be a minimum of two (2) year period of time commencing with the issuance of a Construction Completion Certificate (CCC) and ending with the issuance of a Final Acceptance Certificate (FAC), during which time the developer shall be responsible for maintenance in accordance with the Development Agreement and/or Contract documents and reparation of any deficiencies.

Prior to the expiry of the Warranty Period, the developer shall notify Big Lakes County and arrange for an inspection. Warranty period does not end until the inspection has been completed.

1.12.3. Final Acceptance Certificate

The Final Acceptance Certificate will not be issued until the developer provides Big Lakes County with such evidence and assurance that the construction and installation of all improvement's and infrastructure meets the Municipal Servicing Standards.

1.12.4. Release of Financial Security

Once the Final Acceptance Certificate has been issued and after the Warranty Period has ended, the securities will be released as outlined in Section 1.10.1, if any.



2. Engineering and Professional Services

2.1. Engineering Plans and Construction Drawings

The Developer shall retain the services of a qualified Engineer, registered and licensed to practice in the Province of Alberta, who shall be responsible for the design and preparation of drawings and specifications for all municipal improvements to be constructed within and/or related to the proposed development area, at the developer's expense.

The Engineer will design all infrastructure necessary to allow the proposed usage to take place within the new development. The detailed design will include a water distribution system, a wastewater collection system, a storm water management system as well as any required surface features such as grading, roads, lanes and landscaping.

3. Roadway Standards

3.1. Roadway Classification and Geometric Design

3.1.1. Rural Roadway Classification

Provincial Highways

Provincial roadways are under the ownership, management and control of the Province of Alberta. Access management and right of way width of all Provincial Roads will be established and regulated by Alberta Transportation. The Developer must contact Alberta Transportation directly for any requirements. The County will seek Alberta Transportation comments on development and subdivision applications which are required by Alberta Transportation.

Arterial Roadway

The Arterial Road classification is applicable to a road that collects traffic from both Commercial/Industrial Collectors and/or Residential/Collector roads and directs traffic to a major grid road that connects secondary or primary numbered highways.

- Right of Way Width: 30 Meters
- Surface Type: Asphalt
- Finished Road top Width: 9.0 Meters
- Access Restrictions: 1 farm or acreage access per 800m
1 undeveloped agricultural access per 800m
Roadway Intersections
- Approach Width (finished road top) 10 Meters

Collector Roadway

A collector road is a low-to-moderate capacity road which serves to move traffic from local roads to arterial roads. These roads will often provide access to residential properties.



- Right of Way Width: 30 Meters
- Surface Type: Gravel
- Finished Road top Width: 8.0 Meters
- Access Restrictions: 2 farm or acreage accesses per 800m
1 undeveloped agricultural access per 800m
Roadway Intersections
- Approach Width (finished road top) 10 Meters

Local Roadway and Farm Access

Function of the local roads is to provide access to adjacent properties carrying traffic from higher order road to individual land parcels. Local roads are typically low speed and low volume roadways. They connect to other local roadways or collectors.

- Right of Way Width: 30 Meters
- Surface Type: Gravel
- Finished Road top Width: 8.0 Meters
- Access Restrictions: Maximum 4 Approach Accesses per 800m
Roadway Intersections
- Approach Width (finished road top) 10 Meters

Country Residential/Bare-Land Condominium Roadway

- Right of Way Width: 25 Meters
- Surface Type: Gravel (less than 10 lots)
Asphalt (10 or more lots when the connecting roadway is also asphalt surfaced)
Gravel surfacing is acceptable if the connecting roadway is also gravel.
- Finished Road top Width: 7.5 Meters
- Access Restrictions: All accesses to be on internal roadways except where topographic constraints limit access.
- Approach Width (finished road top) 6 Meters

Business Park Roadway

- Right of Way Width: 30 Meters (25 meters in Rural areas if approved by CAO)
- Surface Type: Asphalt
- Finished Road top Width: 9.0 Meters
- Access Restrictions: All accesses to be on internal roadways except



- Approach Width (finished road top) 6 Meters where topographic constraints limit access.

Higher Density Development Roadway

- Right of Way Width: 30 Meters
- Surface Type: Asphalt
- Finished Road top Width: 9.0 Meters
- Access Restrictions: 1 farm or acreage access per 800m
1 undeveloped agricultural access per 800m
Roadway Intersections
- Approach Width (finished road top) 6 Meters

3.1.2. Hamlet Roadway Classification

Residential

- Right of Width: 20 Meters
- Surface Type: Asphalt
- Finished Road top Width: 8.75 Meters
- Access Restrictions: One per Lot
- Approach Width (finished road top) 6 Meters

Commercial

- Right of Width: 20 Meters
- Surface Type: Asphalt
- Finished Road top Width: 11.0 Meters
- Access Restrictions: One per lot
- Approach Width (finished road top) 10 Meters

Collector

- Right of Width: 30 Meters
- Surface Type: Asphalt
- Finished Road top Width: 9.0 Meters
- Approach Width (finished road top) 6 Meters
- Access Restrictions: Access management to be determined on a case by case basis.

Access Road

- Right of Width: 30 Meters
- Surface Type: Asphalt



- Finished Road top Width: 9.0 Meters
- Access Restrictions: 1 farm or acreage access per 800m
1 undeveloped agricultural access per 800m
Roadway Intersections
- Approach Width (finished road top) 6 Meters

3.1.3. Road Widening

Road widening shall be performed by Registered Road Plan in an amount of 50% of the necessary additional width required to satisfy the requirements of Section (1.9.5).

Where it is impractical to acquire a minimum of 50% of the additional road widening from one side of the roadway, the additional road widening shall be obtained from the other side of the roadway.

Acquisition of road right of ways may be compensated by the County as per Policy PW-20, Land Acquisition and Dedication for Road Widening.

The calculation of the value of the land required for road widening shall be determined as per Policy PW-20, Land Acquisition and Dedication for Road Widening.

3.1.4. Road Survey

All road widenings shall be acquired through a Plan of Survey.

3.1.5. Design Standard

Any roadway geometric requirements not outlined in the Municipal Servicing Standards should be designed to the latest edition of the [Transportation of Canada Association manual "Geometric Design Standards for Canadian Roads"](#).

3.1.6. Dead End

All constructed roads with a dead end must provide a turn around or cul-de-sac.

A cul-de-sac shall not exceed 400 m. where the average non-park parcel size is 1.2 ha. (3.0 ac.) or greater.

A cul-de-sac shall not exceed 200 m. where the average non-park parcel size is between 0.3 ha. (0.75 ac.) and 1.2 ha. (3.0 ac.)

A cul-de-sac shall not exceed 100m. where the average non-park parcel size is less than 0.3 ha. (0.75 ac.).

A cul-de-sac shall include a minimum 6.0 metre (20.0 ft.) open space directly opposite the entry point to the cul-de-sac. The open space may be an undeveloped park, utility lot or walkway and shall be prepared for use as a snow-dump area.

Rural Roads constructed on a Statutory road allowance can provide a turn around by placing an approach 20 meters before the end of the constructed road.



3.1.7. Ditches

The minimum ditch grade allowed shall be 0.5%.

Where a ditch grade is in excess of 3%, it shall be protected against erosion through rock checks, enviroberm fences, silt fences, erosion control blankets or other approved technologies.

Ditch side slopes and back slopes shall not exceed a slope of 3:1

3.1.8. Culverts

Culverts shall be new galvanized C.S.P. (corrugated steel pipe) or approved equivalent with a minimum wall thickness of 1.6 mm or as required by loading criteria.

All culverts shall be installed in accordance with manufacturer's specifications and shall include beveled ends.

In higher density developments all culverts shall be installed complete with beveled end sections on both the inlet and outlet sides with invert extended towards the tow of the side slope.

Culverts shall have a minimum depth cover of 0.5 m or 50% of the diameter of the culvert, whichever is greater; measured from the finished shoulder grade of the roadway to the top of the culvert.

Rip rap is required on all installations where slopes exceed 2%.

Rip rap shall be placed around the inlet and outlet of each culvert to a minimum of 1.0m. beyond the ends of the culvert. Rip rap material shall consist of rock ranging in size from 15cm to 35cm with 50% of the rock being larger than 20cm in size.

3.1.9. Approaches

Approach design standards are illustrated on the [Alberta Transportation Standard Drawings](#). The Drawing "[Approach Treatment for Minor Access to Low Speed Local Roads](#) " is the minimum standard for the County.

Approach widths shall be constructed with a finished road top width as outlined in Sections 3.1.1 and 3.1.2.

Deviations from approach design standards require approval from the Director of Public Works.

Every lot shall have a finished approach constructed in a location that provides reasonable access to the developable portion of the lot.

At the discretion of the Director of Public Works, the Developer may provide a deposit for an approach construction equal to the cost of installation should the time of year make the installation of the approach impractical.

Where a deposit is provided, the approach shall be installed prior to the conclusion of the current or following construction season. Failure to do so may result in the Director of Public



Works causing the approach to be installed and the deposit forfeited. Extensions may be granted on a case by case basis.

Roadways with hard surfacing (asphalt or other) shall extend to the property line in low density residential areas, 4.0 m. past the shoulder in higher density residential areas, and to the property line for all other approaches.

3.2. Roadway Construction

Grading and Embankment

All grading and embankment construction shall be in accordance with [Alberta Transportation Standard Specifications for Highway Construction, Edition 15, 2013 \(Section 2\)](#)

Base Course Construction

All Base Course construction shall be in accordance with [Alberta Transportation Standard Specifications for Highway Construction, Edition 15, 2013 \(Section 2\)](#), Specification 3.6, Granular Base Course. The aggregate shall be 2-20 or as approved by the Director of Public Works.

Asphalt Concrete Pavement

All asphalt concrete pavement construction shall be in accordance with [Alberta Transportation Standard Specifications for Highway Construction, Edition 15, 2013 \(Section 2\)](#) Specification 3.50, A tack coat shall be placed as per Specification 3.19 Prime, Tack, and Fog Coats. The mix type shall be M1 or as approved by the Director of Public Works. The grade of asphalt shall be PG 58-34 or as approved by the Director of Public Works.

4. Sanitary Sewer Standards, Water Systems, and Fire Flow Requirements

4.1. General

Unless specifically identified otherwise in this section, Sanitary Sewer and Water Systems shall be designed and constructed in Accordance with current [Standards and guidelines for municipal waterworks, wastewater and storm drainage systems](#) published by Alberta Environment and Sustainable Resources, Government of Alberta.

4.2. Single Residential Subdivisions Sewer Systems

In areas of the County where Municipal Sewer systems are not available, Sewer systems for single dwelling subdivisions should be designed and constructed in accordance with [Alberta Private Sewage Systems - Standard of Practice - Third Edition 2015](#).

4.3. Low Flow Sewer Standards

4.3.1. General

This section outlines the requirements for a low-pressure sewer system. A low-pressure sewer system has two major components; the onsite pressurized facility and the pressurized sewer main. The pressurized facility consists of a septic tank and effluent pumping system.



4.3.2. Design Criteria

Septic tank – two compartments, 13, 500 litres total volume minimum for a single-family dwelling, concrete or fibreglass construction.

Sewage pumps – submersible pump installed in the second (liquid) chamber or a centrifugal pump installed in the basement with controls and a suction line.

Maximum head for economical operations is 24 meters or 240 kPa (35 psi) or if higher discharge is required a detailed engineering assessment will be required.

Minimum motor size shall be ½ horsepower.

A sewage generation rate of 275 L/capita/day for a low-pressure sewer system with no infiltration rate shall be used, unless otherwise determined by BLC. The disposal rate will be dependent upon the disposal system capacity.

In determining residential flows a minimum of 3.5 persons per household shall be used unless otherwise determined by Big Lakes County.

A report from the Consulting Engineer must be prepared to ensure that pipe sizing is calculated in consideration of the topography and the population projections of the service area.

4.3.3. Fittings

All pump connections to have a double check valve and a gate valve downstream of the pump discharge. All fittings should be plastic, brass or stainless steel.

Service connections to the mains to be either inline tees or service saddles. Service saddle to be either brass or stainless steel.

4.3.4. Pipe

Low pressure sanitary pipe shall be a minimum DR 11 HDPE for mains 100 mm and smaller, and a minimum DR 17 HDPE for mains larger than 100 mm.

Minimum depth of cover shall be 2.75 m from finished grade over top of pipe.

4.3.5. Curb Stop

A curb stop and service box to be installed on the property line to allow isolation of the service for maintenance.

4.3.6. Collector Sewer

The collector sewer should be either Poly Vinyl Chloride (PVC) pipe with a Dimension Ratio of 26 with Bell and Spigot joints, or High Density Polyethylene (HDPE) pipe with DR 11 for diameters less than 150mm and DR17 for pipes larger than 150mm.

4.3.7. Standards

The requirements outlined herein are intended to be minimum standards. It is the developer's responsibility to meet or exceed the standards in accordance with good engineering practices, specific site conditions, and/or as may be required by the Director of Public Works and any or all Statutory and Regulatory Approval Agencies.



All materials shall be new and in compliance with the most recent standards of ASTM, CSA and NSF.

4.4. Water Co-op/Rural Water Connections

Within Big Lakes County there are member operated water Co-operatives and a County operated rural water network. Developers wishing to connect to a water co-operative must contact the co-operative directly for requirements. Costs and conditions to connect to the County operated Rural Water network can be found in the [Water and Sewer Service Policy](#) and the [Schedule of Fees](#). Developers must contact the Director of Public Works for determination of additional requirements and system capacity limitations.

4.5. Fire Flow

The Director of Public Works shall be contacted for direction on the design and installation of fire hydrants. Generally, fire hydrants will be required for developments constructed within hamlets or adjacent to hamlets, which currently have fire hydrant infrastructure. Larger Commercial, Industrial, or multi-unit residential developments may be required to construct Dry Hydrants with properly designed ponds.

5. Shallow Utilities

5.1. General

The Developer shall be responsible for the identification, location and protection of all utilities which may exist within or adjacent to the proposed subdivision or adjacent road allowances. Typically, this shall include: drainage structures & storm sewer, water mains, sanitary and storm sewer, bio-swales, telephone cables and cable system lines, power cables, natural gas distribution lines, oil and gas transmission/distribution lines.

The Developer shall be responsible for contacting all utility companies and for arranging and coordinating all protection and/or modifications to the utilities during the development of the subdivision at his sole cost or as agreed upon with the respective utility company.

5.2. Electrical Services

The Developer shall make arrangements with the electrical service provider for the installation of above ground and/or underground Electrical Power within a subdivision.

5.3. Natural Gas

The Developer shall make arrangements with the natural gas service provider for the installation of underground natural gas service within a subdivision.

Where a Developer intends to not install natural gas in favour of an alternative energy source such as geo-exchange or solar energy, the Developer shall conform to the requirements of the Municipal Development Plan regarding alternative energy systems.



Where compliance is achieved, installation of natural gas may be waived through the subdivision conditions of approval.

5.4. Canada Post

If applicable to the subdivision, the Developer will submit an overall subdivision layout plan (Area Structure Plan) to Canada Posts Delivery Planning Department for establishing the location, size, and details of community mailboxes. For further information and requirements, consult the “[Canada Post Delivery Planning Standards Manual for Builders and Developers](#)” document available from Canada Post. Upon approval of location and details by Canada Post, community mailboxes are to be shown on all applicable drawings and brochures.

5.5. Street Lighting

The Director of Public Works shall be contacted for street lighting requirements. In general, Street Lighting will be required when developing adjacent or within areas already serviced with street lighting.

5.6. Signage

Plans shall be provided to the Director of Public Works, which shall depict the locations and details of all traffic signs.

All traffic signs shall be designed in accordance with the manual: [Uniform Traffic Control Devices for Canada](#), as issued and revised from time to time by the Transportation Association of Canada.

Guide and information signage shall be designed and installed in accordance with the Urban Guide and Information Sign Manual, as issued by the Government of Alberta.

Signs shall be constructed and installed as per County approvals.

5.6.1. Street and Rural Addressing

The County will assign and supply Rural and Street Address signage for a project. The developer will be responsible for the supply of posts and installation of the signs.

Rural and Street address signage must be placed in a conspicuous location where it can be viewed from the public roadway and not be easily damaged by vehicular traffic or snow removal equipment.

6. Storm Drainage and Lot Grading

Storm drainage shall be designed and constructed in accordance with Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems Part 5 [Stormwater Management Guidelines](#), March 2013.



7. Low Impact Developments

7.1. Introduction

This section shall apply to subdivisions or developments which have a relatively low impact and, in the opinion of the Development Officer, may not necessitate application of the full Engineering Design and Construction Standards. Examples of such subdivision or development could include:

- First parcel out of an original titled area.
- Single parcel subdivisions.
- Subdivisions consisting of four (4) lots or less in an area which will have minimal impact on Big Lakes County infrastructure or on adjoining lands or owner (E.g. one approach per lot).

7.2. Application

Applications for proposed subdivisions with low impact projects shall include the following information at a minimum:

- Application for subdivision in the prescribed form signed by the applicant and authorized by the registered owner if other than the applicant.
- Authorization for staff and agents of Big Lakes County to enter upon and inspect the property for the purposes of assessment of the application.
- A Proposed Tentative Plan of Subdivision prepared by a Land Surveyor showing the dimensions and size of the proposed parcel (s) along with the following specific information:
 - Relevant buildings & structures within and adjacent to the proposed parcel(s).
 - Fences, tree lines, tree stands or other topographic features which may affect the subdivision or consideration of the application.
 - Any drainage facilities in existence or proposed to facilitate the subdivision.
 - Location and complete description of sewage disposal facilities and accurate relationship to existing and proposed property boundaries. The applicant and owner should understand that it is the responsibility of the developer to comply with the Safety Codes Act and the Private Sewage Disposal Systems Regulation thereunder, in undertaking the subdivision. This may include moving or modifying the existing system to achieve compliance. Failure to do so may result in refusal of the application or the inability of Big Lakes County to endorse the final subdivision instrument to achieve registration at Land Titles.
 - Any adjoining information such as proximity to urban centers, numbered highways, natural lakes or watercourses and nearby developments which may be impacted by the subdivision.
- Application fees in accordance with Big Lakes County current Schedule of Fees Bylaw.
- Copy of the current Certificate of Title.



7.3. Development Agreement

A Development Agreement would be employed to facilitate any specific works required either as a condition of subdivision approval or by way of Big Lakes County Policy or Bylaw.

These works may include but are not limited to the following components to be provided at the sole expense of the developer/owner:

- Appropriate access construction to the new parcel of land and to the residual property, if applicable. In rural areas, this would generally constitute a crossing and culvert in accordance with Approach Construction.
- In urban areas with pavement, curb and gutter, it may be specific access in accordance with the standards of development for that particular area or such higher standards as may be required by the Director of Public Works.
- Offsite improvements such as roadways required to provide both legal and physical access
- Extension of or provision of franchise utilities such as power and gas required to service the subject lands

The Development Agreement and subdivision approval conditions may also require:

- Offsite levies in accordance with current Bylaws
- Additional conditions required by external authorities such as Alberta Transportation and other Provincial or Federal Agencies. For instance, any development within 1 mile of a numbered highway would require a Roadside Development Permit from Alberta Transportation and that Department may require such additional information such as Traffic Impact Assessment or an Area Structure Plan depending on the impact of the particular proposed development.

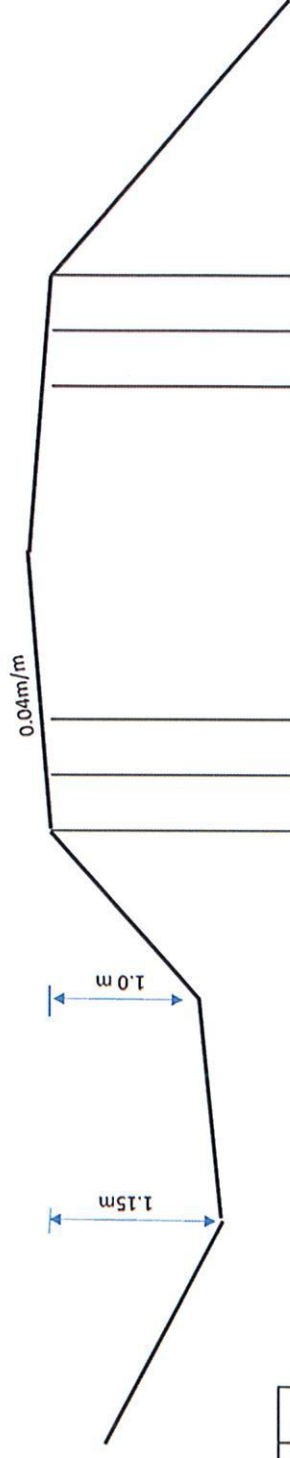
The Subdivision Approving Authority will specify the disposition of the requirement for Municipal, School, Environmental, or Conservation Reserve or all of the above by way of dedication of land, deferral of Reserve requirements to the residual of the land, deferral of Reserve requirements to other lands, payment of money in lieu of Reserve dedication or such other disposition as may be deemed appropriate and in accordance with the Municipal Government Act.



8. Drawings

[Alberta Transportation Standard Drawings.](#)





Road Classification	Typical Volume (VPD)	RTAC/AT Designation	Design Speed (KPH)					Shoulder		# Lanes	Finished Grade Width	Shoulder		Curve Widening	Steep Fill Slopes Only	
Arterial	501-1000	RAU-209-110	100	2:1	3.0	4:1	1.0	0.5	2	9.0	0.5	1.0	3:1	2:1	Without Guard Rail	With Guard Rail
Collector	<1000	RCU-208-110	100	2:1	3.0	4:1	1.0	0.5	2	8.0	0.5	1.0	3:1	2:1	Without Guard Rail	With Guard Rail
Local 2	151-500	RLU-208G-90	80	2:1	3.0	3:1	1.0	0.5	2	8.0	0.5	1.0	3:1	2:1	Without Guard Rail	With Guard Rail
Local 1	1-150	RLU-207G-80	80	2:1	3.0	3:1	1.0	0.5	2	7.0	0.5	1.0	3:1	2:1	Without Guard Rail	With Guard Rail
Hamlet Collector	151-500	RCU-60	60	4:1	3.0	4:1	1.0	0.5	2	11.0	0.5	1.0	3:1	2:1	Without Guard Rail	With Guard Rail
Hamlet Local 1	0-150	RLU-60	60	4:1	3.0	4:1	1.0	0.5	2	8.75	0.5	1.0	3:1	2:1	Without Guard Rail	With Guard Rail

