

## **SECTION C LAND USE DISTRICTS AND LEVEL OF SERVICE**

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### **C.1 INTENT**

- C.1.1** This section is intended to assist the County and/or Developer with a general guideline outlining the level of service for a particular development based on the land use district. The Developer may use this section to determine the most appropriate servicing standards presented in the following sections.
- C.1.2** The level of service applicable to any particular development is subject to review by the County. The County reserves the right to require a higher level of service for any particular development.
- C.1.3** The guidelines and standards presented in this document should only be considered as minimum requirements. The Developer remains fully responsible for the design and construction of municipal improvements according to accepted engineering practice and standards that address and meet the specific needs and site conditions of the development. Certain site-specific conditions may warrant that standards that are more stringent be met.
- C.1.4** It is the Developer's responsibility to satisfy, in addition to these requirements, all regulations and conditions required by referenced legislation or document, Municipal By-Laws and Provincial/Federal Government Authorities.
- C.1.5** Should the need arise where any of the following standards cannot be met, a written request describing the variance complete with supporting documentation shall be forwarded to the Municipal Engineer for review. The request will be reviewed and a written reply returned with the final decision.

### **C.2 LAND USE DISTRICTS**

**C.2.1** The following is a list of the land use districts in place. Levels of service for land use districts created after this document was printed shall be specified by the County upon receiving the development application.

**C.2.2** Land Use Districts:

Agricultural (A) District 59  
Highway Development (HD) District 61  
Highway Development Special Purpose (OOS) District 63  
Collector Road (SR) District 65  
Controlled Urban Development (CUD) District 67

Urban General (UG) District 69  
Industrial Development (M) District 71  
Business (B) District 73  
Lloydminster Flinge Business (B2) District 76  
Manufactured Home Park (MHP) District 78  
Country Residential One (CR1) District 80  
Country Residential Two (CR2) District 82  
Urban Expansion (DE) District 84  
Landfill and Composting (LC) District 87  
Large Lot Residential (R) District 90  
Urban Residential (RI) District 92  
Hamlet Residential (R2) District 96  
Commercial (CI) District 97  
Light Industrial (MI) District 99  
Heavy Industrial (MH) District 101  
Parks and Recreation (PR) District 103

### **C.3 LAND USE DISTRICTS AND LEVEL OF SERVICE**

The intent is to assist the County of Vermilion River and/or Developer with a general guideline outlining the level of service for a particular development based on the land use district. The Developer may use this section to determine the most appropriate servicing standards presented in the following sections.

The level of service applicable to any particular development is subject to review by the County of Vermilion River. The County of Vermilion River reserves the right to a higher level of service for any particular development.

It is the Developer's responsibility to satisfy, in addition to these requirements, all regulations and conditions required by referenced legislation or document, Municipal By-laws and Provincial/Federal Government Authorities.

#### **C.3.1 Agricultural (A) District 59**

- C.3.1.1** 8 m min. finished roadway width
- C.3.1.2** Gravel base course
- C.3.1.3** Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.1.4** Private Water and Sewer Systems
- C.3.1.5** Private On-site Stormwater Management System
- C.3.1.6** Min area: as per current Land Use Bylaw

#### **C.3.2 Highway Development (HD) District 61**

- C.3.2.1** 10.0 m min. finished roadway width

- C.3.2.2 Asphalt with stabilized base course
- C.3.2.3 Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.2.4 Private Water and Sewer Systems
- C.3.2.5 Private Onsite Stormwater Management System
- C.3.2.6 Min Lot area: as per current Land Use Bylaw

**C.3.3 Collector Road (SR) District 65**

- C.3.3.1 10.0 m min. finished roadway width
- C.3.3.2 Asphalt with stabilized base course
- C.3.3.3 Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.3.4 Private Water and Sewer Systems
- C.3.3.5 Overland Stormwater Management System
- C.3.3.6 Min. lot area: as per the current Land Use Bylaw

**C.3.4 Controlled Urban Development (CUD) District 67**

- C.3.4.1 10.0 m min. finished roadway width
- C.3.4.2 Asphalt with stabilized base course
- C.3.4.3 Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.4.4 Private Water and Sewer Systems
- C.3.4.5 Overland Stormwater Management System
- C.3.4.6 Min. lot area: as per the current Land Use Bylaw

**C.3.5 Urban General (UG) District 69**

- C.3.5.1 9.0 m min. finished roadway width
- C.3.5.2 Asphalt Concrete Pavement or Cold mix with stabilized base course
- C.3.5.3 Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.5.4 Sidewalk and curb & gutter requirements shall be determined on an individual basis
- C.3.5.5 Sidewalks shall generally be required for subdivisions with four or more lots constructed adjacent to developments with established sidewalks
- C.3.5.6 Serviced Lots – piped water at normal operating pressure, sanitary sewer, and fire protection services may be required
- C.3.5.7 Overland Stormwater Management System
- C.3.5.8 Min. lot area: as per the current Land Use Bylaw

### **C.3.6 Large Lot Residential (R) District 90**

- C.3.6.1** 9.0 m min. finished roadway width
- C.3.6.2** Asphalt Concrete Pavement or Cold mix with curb and gutter
- C.3.6.3** Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.6.4** Sidewalk requirements shall be determined on an individual basis
- C.3.6.5** Sidewalks shall generally be required for subdivisions with four or more lots constructed adjacent to developments with established sidewalks
- C.3.6.6** Serviced Lots – piped water at normal operating pressure, sanitary sewer and fire protection services may be required
- C.3.6.7** Overland Stormwater Management System
- C.3.6.8** Min. lot area: 550 sq. m

### **C.3.7 Urban Residential (R2) District 92**

- C.3.7.1** 9.0 m min. finished roadway width
- C.3.7.2** Asphalt Concrete Pavement or Cold mix with curb and gutter
- C.3.7.3** Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.7.4** Sidewalk requirements shall be determined on an individual basis
- C.3.7.5** Sidewalks shall generally be required for subdivisions with four or more lots constructed adjacent to developments with established sidewalks
- C.3.7.6** Serviced Lots – piped water at normal operating pressure, sanitary sewer and fire protection services may be required
- C.3.7.7** Overland Stormwater Management System
- C.3.7.8** Min. lot area: One Family Dwelling (372 sq. m), Duplexes (325 sq. m) and One Family (Type B) Dwellings (372 sq. m)

### **C.3.8 Hamlet Residential (R2) District 96**

- C.3.8.1** 9.0 m min. finished roadway width
- C.3.8.2** Asphalt Concrete Pavement or Cold mix with curb & gutter
- C.3.8.3** Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.8.4** Sidewalk requirements shall be determined on an individual basis
- C.3.8.5** Sidewalks shall generally be required for subdivisions with four or more lots constructed adjacent to developments with established sidewalks

- C.3.8.6 Serviced Lots – piped water at normal operating pressure, sanitary sewer and fire protection services may be required
- C.3.8.7 Overland Stormwater Management System
- C.3.8.8 Min. lot area: Same as R1, except fourplexes lot size to be min. 740 sq. m

**C.3.9 Country Residential One (CR1) District 80**

- C.3.9.1 9.0 m min. finished roadway width
- C.3.9.2 Asphalt or Cold Mix Pavement
- C.3.9.3 Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.9.4 Sidewalks shall generally be required for subdivisions with four or more lots constructed
- C.3.9.5 Private Water and Sewer Systems
- C.3.9.6 Overland Stormwater Management System
- C.3.9.7 Min. Lot size 1.0 acre

**C.3.10 Country Residential Two (CR2) District 82**

- C.3.10.1 9.0 m min. finished roadway width
- C.3.10.2 Asphalt or Cold Mix Pavement
- C.3.10.3 Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.10.4 Private Water and Sewer Systems
- C.3.10.5 Protection services may be required
- C.3.10.6 Overland Stormwater Management System
- C.3.10.7 Min. Lot size 5.0 acres

**C.3.11 Manufactured Home Park (MHP) District 76**

- C.3.11.1 The County shall determine roadway standards on a project specific basis
- C.3.11.2 Private Water and Sewer Systems
- C.3.11.3 Private On-site Stormwater Management
- C.3.11.4 Min. lot area: 5 ac.

**C.3.12 Business (B) District 73, Lloydminster Flinge Business (B2) District 76, Commercial (C1) District 97, Industrial Development (M) District 71, Light Industrial (M1) District 99 and Heavy Industrial (MH) District 101**

- C.3.12.1 10.0 m min. finished roadway width
- C.3.12.2 Asphalt Concrete Pavement

- C.3.12.3 Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.12.4 Roadway surfacing requirements may be subject to review on a project specific basis
- C.3.12.5 Municipal water and Sewer may be available and each project would be reviewed on an individual basis
- C.3.12.6 Rated Fire Flows may be required
- C.3.12.7 Overland Stormwater Management System/Private On-site Stormwater Management
- C.3.12.8 Min Lots sizing:
  - B – as per the current Land Use Bylaw
  - B2 – 14.8 ac.
  - C1 – as per the current Land Use Bylaw
  - M – as per the discretion of the Development Authority
  - M1 – 4000 sq. m
  - MH – 4000 sq. m

**C.3.13 Urban Expansion (DE) District 84**

- C.3.13.1 The County shall determine applicable roadway standards on an individual project basis
- C.3.13.2 Private Water and Sewer Systems
- C.3.13.3 Municipal water and Sewer may be available and each project would be reviewed on an individual basis
- C.3.13.4 Rated Fire flows may be required
- C.3.13.5 Overland Stormwater Management System/Private On-site Stormwater Management
- C.3.13.6 Min lot area: as per the current Land Use Bylaw, Inter-municipal Development Plan and corresponding Area Structure Plans

**C.3.14 Landfill and Composting (LC) District 87**

- C.3.14.1 The County shall determine and review each project on individual basis
- C.3.14.2 Min. lot area: as per the current Land Use Bylaw

**C.3.15 Parks and Recreation (PR) District 103**

- C.3.15.1 The County shall determine and review each project on individual basis
- C.3.15.2 Min. lot area: 371 m<sup>2</sup>

## **C.4 PUBLIC WORKS**

### **C.4.1 Roadways**

**C.4.1.1** The Developer's Engineer shall be responsible for determining an estimated Annual Average Daily Traffic (AADT) generated by the development in order to determine the required cross sectional elements and pavement structure. Developer is responsible to determine daily traffic volumes generated for development. Section G provides a geometric design table and cross sections for the various roadway classifications.

**C.4.1.2** The Standard roadway Classifications included:

Class A  
Class B  
Class C  
Class D  
Class E  
Class F  
Class G  
Class H  
Class I  
Class J  
Class K

### **C.4.2 Water Systems**

Developments may require one of the following types of water distribution systems:

#### **C.4.2.1 Private Water Systems**

**C.4.2.1.1** Private water systems consist of individual wells or water cisterns. Systems must be designed and installed according to the Canadian Plumbing Code and applicable Provincial Regulations.

**C.4.2.1.2** The County of Vermilion River will review the construction of communal water systems, which are designed to incorporate a water supply from an on-site well or public infrastructure.

### **C.4.2.2 Piped Water Distribution Systems**

**C.4.2.2.1** Piped water systems may consist of a piped network at normal operating pressure or a trickle system that delivers water at a lower than normal operating pressure. The type of system will depend on the layout, size and type of development as well as the existing infrastructure in the area.

**C.4.2.2.2** All piped systems must be designed and installed according to provincial standards, AWWA standards, Alberta Environment Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems and the Fire underwriters, and any applicable National Fire Protection Association Standards.

### **C.4.2.3 Communal Water Systems**

**C.4.2.3.1** Piped water collection systems may consist of either normal pressure or a trickle system that delivers water at a lower than normal operating pressure. The specific type of system will depend on the layout, size and type of development as well as the existing infrastructure in the area. All communal water systems including municipal and co-op systems, must be designed and installed according to the minimum standards. Applicable standards include the County of Vermilion River's Bylaws, the *Alberta Environment Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems and Rural Utilities Act*.

## **C.4.3 Sanitary Sewer Systems**

Developments may require one of the following types of sanitary sewer systems:

### **C.4.3.1 Private Sewage System on Residential Development**

**C.4.3.1.1** Private Sewage systems may consist of any sewage collection or treatment system which is installed and managed entirely within private property boundaries. Systems may consist of septic tanks or holding tanks, disposal fields, treatment mounds, sewage lagoons,



mechanical treatment units and related piping. All private sewage systems must be designed and installed in accordance with provincial Sewage Standards, regulations and Canadian Plumbing Code.

#### **C.4.3.2 Non-Residential**

**C.4.3.2.1** A private sewage system that is designed to receive more than 5.68 m<sup>3</sup> of sewage per day must be designed for the specific site by a qualified professional engineer or an individual who holds a certificate of competency acceptable to the Administrator as appointed pursuant to the Safety Codes Act.

#### **C.4.3.3 Piped Sewage System**

**C.4.3.3.1** Piped sewage collection systems may involve either gravity lines or low-pressure lines. Dependant on layout, size and type of development proposed as well as any existing infrastructure within the area. All systems must be designed and installed according to Provincial Codes, Regulations, Guidelines (AENV Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage systems and Rural Utilities Act), Federal Codes, Regulation and Guidelines.

#### **C.4.3.4 Communal Sewage System**

**C.4.3.4.1** Piped sewage collection systems may consist of either gravity lines or low-pressure lines. The specific type of system will depend on the layout, size and type of development as well as the existing infrastructure in the area. All communal sewage systems including municipal and co-op systems, must be designed and installed according to the minimum standards. Applicable standards include the County of Vermilion River's Bylaws, the *Alberta Environment Standards and Guidelines for Municipal Waterworks, Wastewater and Storm Drainage Systems and Rural Utilities Act*.

## **C.4.4 Stormwater Management Systems**

- C.4.4.1** Stormwater management systems shall be determined on an individual project basis. All systems must comply with provincial and in certain cases federal Codes, Regulations, and Guidelines. The type of stormwater management system will largely be dictated by the roadway standards. All urban cross sections with curb and gutter may use overland or piped storm sewer system. Rural Cross sections will employ an overland drainage system consisting of ditches and swales.
- C.4.4.2** The Developer is responsible to provide compensation for downstream easements, and improvements to downstream water channels. The developer may also be responsible to contribute to improvements for the downstream channel from the proposed development.
- C.4.4.3** The property(s) should be graded, regardless of development stage, to direct and manage flows at rates that would not allow erosion or flooding to occur to other properties.

## **C.5 Road Categories**

### **C.5.1 A: Collector Roads**

- C.5.1.1** Designed generally for a 100 km/hr speed limit but will be posted at an 80 km/hr speed limit.
- C.5.1.2** Average Daily Traffic of 150+ vehicles
- C.5.1.3** Traffic Impact Study will need to be completed to determine if turning lanes will be required.
- C.5.1.4** A1:
- Earth Works should be 13.5 metres with the paved surface width of 10.4 metres
  - 60 metre right-of-way
  - 1 metre grade line
  - Base course of 300 mm and asphalt pavement of 120 mm
  - Designs greater than, or similar to, shall be designed by a Practicing Engineer in the Province of Alberta and approved by the County.
- C.5.1.5** A2:

- Earth Works should be 11 metres with the paved surface width of 9 metres
- 30 metre right-of-way
- 1 metre grade line
- Base course of 300 mm and asphalt pavement of 120 mm

**C.5.1.6 A3:**

- Earth works should be 11 metres with the cold mix surface width of 9 metres
- 30 metre right-of-way
- 1 metre grade line
- Base course of 300 mm and cold mix of 100 mm

**C.5.2 B: Local Upgraded + Developer 3**

**C.5.2.1** More than 2 industrial lots in addition to existing development on the same road

**C.5.2.2** 30 metre right-of-way

**C.5.2.3** Base course of 300 mm and asphalt pavement of 120 mm

**C.5.2.4** Earth works should be 12 metres with the paved surface width of 10 metres

**C.5.2.5** 1 metre grade line

**C.5.2.6** Average Daily Traffic not applicable

**C.5.3 C: Local Upgraded + Developer 2**

**C.5.3.1** Local families and access road to multi-lot 5

**C.5.3.2** 30 metre right-of-way

**C.5.3.3** Earth works should be 11 metres with the paved and/or cold mix surface width of 9 metres

**C.5.3.4** Base course of 300 mm

- Asphalt thickness of 120 mm
- Cold mix thickness of 100 mm

**C.5.3.5** 1 metre grade line

**C.5.3.6** Average Daily Traffic of 10 – 50 vehicles

**C.5.4 D: Local Upgraded + Developer 1**

- C.5.4.1 Local families and access road to single to four lot development
- C.5.4.2 30 metre right-of-way
- C.5.4.3 Travel surface 8 metre top
- C.5.4.4 Gravel depth of 38 to 50 mm
- C.5.4.5 1 metre grade line
- C.5.4.6 Average Daily Traffic of 10 – 50 vehicles

**C.5.5 E: Local**

- C.5.5.1 Single access
- C.5.5.2 Travel surface 7 metre top
- C.5.5.3 Light gravel depth of 38 mm
- C.5.5.4 ½ metre grade line
- C.5.5.5 Average Daily Traffic of less than 10 vehicles

**C.5.6 F: Undeveloped Road**

- C.5.6.1 Adjacent landowner only, adjacent farm access only (back road)
- C.5.6.2 20 metre right-of-way
- C.5.6.3 Surface is dirt trail and/or reject gravel
- C.5.6.4 Maintain twice a year or upon request

**C.5.7 G: Special Projects**

- C.5.7.1 Special plans; 4 lane roads, etc. Master Transportation Plan may be followed.

**C.5.8 H: Not Open**

- C.5.8.1 Road allowance is not open for use

**C.5.9 I: Internal Hamlet and Multi-Lot Roads**

- C.5.9.1 I1: Internal Multi-Lot Roads:

- C.5.9.1.1** Industrial multi-lots do not fall in this classification
- C.5.9.1.2** 30 metre right-of-way
- C.5.9.1.3** Earth works should be 11 metres with the paved and/or cold mix surface width of 9 metres
  - Asphalt thickness 120 mm
  - Cold mix thickness 100 mm
- C.5.9.1.4** Gravel depth of 38 to 50 mm
- C.5.9.1.5** 1 metre grade line
- C.5.9.1.6** Average Daily Traffic not applicable

**C.5.9.2** I2: Internal Hamlet Roads:

- C.5.9.2.1** 30 metre right-of-way
- C.5.9.2.2** Earth works should be 11 metres with the asphalt and/or cold mix surface width of 9 metres
  - Asphalt thickness 120 mm
  - Cold mix thickness 100 mm
- C.5.9.2.3** Gravel depth of 38 to 50 mm
- C.5.9.2.4** Curbs and gutters required or an approved overland management system
- C.5.9.2.5** Average Daily Traffic not applicable

**C.5.10 J: Hamlet Roads**

- C.5.10.1** Road from closest highway to the Hamlet
- C.5.10.2** Earth works should be 11 metres with the asphalt and/or cold mix surface width of 9 metres
  - Asphalt thickness 120 mm
  - Cold mix thickness 100 mm
- C.5.10.3** Gravel depth of 38 to 50 mm
- C.5.10.4** 1 metre grade line
- C.5.10.5** Average Daily Traffic of 50 – 150 vehicles
- C.5.10.6** If large truck traffic is not an issue, a dust-free surface will be maintained until upgrades can occur.

## **C.5.11 K: Oil Field Traffic Only**

- C.5.11.1** Earth works should be 11 metres with the cold mix/asphalt surface width of 9 metres
  - Cold mix thickness 120 mm
  - Asphalt thickness 100 mm
- C.5.11.2** 30 metre right-of-way
- C.5.11.3** 1 metre grade line
- C.5.11.4** Base course of 300 mm

## **C.6 Unauthorized Development**

**C.6.1** County of Vermilion River as the stewards of all County property must ensure that the use and enjoyment of public lands is a benefit to all residents and is not interfered with by those few property owners who deliberately or inadvertently encroach onto public lands.

**C.6.2** Unauthorized use is when a property owner accesses public land with encroachments, construction, storage, landscaping, or removal of anything on, over or in County property without written approval of the County.

**C.6.2.1** Unauthorized use or encroachment can create public safety issues, limit public access or use of public lands, prevent County maintenance or operation from occurring and damage the natural environment.

**C.6.3** The County will regulate the use of all County property to ensure the public safety and enjoyment and to protect natural areas and ecosystems.

**C.6.3.1** The County will notify and work with the property owners with contravening unauthorized uses on a case by case issue providing an explanation of the encroachment or unauthorized use and detail what corrective measures must be completed.

**C.6.3.2** Non-compliance with County direction may result in legal enforcement.

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