



# General Municipal Servicing Standards

September 2013



## EXECUTIVE SUMMARY

---

The General Municipal Servicing Standards (GMSS) 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 (roads, water distribution systems, low-pressure/gravity sewer systems, storm water management facilities) that will meet the servicing requirements for commercial, industrial and residential subdivision development within Lamont County.

The General Municipal Servicing Standards (GMSS) have been developed with specific section that provides the intended guidelines for municipal infrastructure in Lamont County.

**Section A General:** This Section of the GMSS provides the general intent of the document and outlines the Developer's responsibilities, the Municipal procedure to follow, and general definitions.

**Section B Guidelines for General Compliance:** Illustrates the submission requirements for reports and studies and engineered design submissions.

**Section C Land Use Districts and Levels of Services:** Provides an overview of the minimum servicing standards expected for developments as they relate to the specific Land Use Districts as established in the Lamont County Land Use Bylaw.

**Section D Water Distribution System:** provides the Standards and Regulatory requirements and well as materials selection for potable water distribution.

**Section E Sanitary Sewer System:** provides the Standards and Regulatory requirements and well as materials selection sanitary sewer systems.

**Section F Stormwater Management Systems:** Reviews both the minor and major stormwater drainage system requirements include retention pond and the Provincial Regulatory Standards.

**Section G Transportation:** Provides level of road services, design criteria, subgrade preparations, base course and pavement structure requirements.



# General Municipal Servicing Standards

Prepared July 2013

This manual was originally prepared by Stewart Weir and has been amended in coordination with staff from Lamont County for the expressed purpose of development control within Lamont County. This manual is intended for the exclusive use of Lamont County for providing control of development standards within the municipality. The content cannot be reproduced, provided to outside entities or sold other than for the expressed use of development control within Lamont County. The base content is copy written by Stewart Weir.

Stewart Weir is a Canadian consulting engineering firm that provides Civil, Geotechnical and Environmental Engineering services to three levels of government and private sector clients. Further information on Stewart Weir can be found at [www.swg.ca](http://www.swg.ca).



## ACKNOWLEDGEMENTS

---

Stewart, Weir & Co. Ltd. would like to extend their appreciation to everyone who assisted in the review and revision of the County's General Municipal Servicing Standards. Special thanks are extended to:

### Lamont County Technical Review Committee, 2013

CAO .....Allan Harvey  
Director of Planning & Community Services .....Marie Kurylow  
Planning & Development Officer.....Tina Cosby  
Director of Public Works..... Harold Hamilton  
Manager of Economic Development.....Jim Newman  
Emergency Services Coordinator..... Randy Siemens

### Lamont County Council, 2011

Division 1 Councillor ..... Daniel Warawa  
Division 2 Reeve ..... Wayne Woldanski  
Division 3 Councillor ..... Chris Klita  
Division 4 Councillor ..... Roy Anaka  
Division 5 Councillor ..... Dennis McCartney



## AMENDMENTS

---

It is recommended that all document holders check periodically with the County to ensure that all further amendments to this draft are included.

<u>Amendment No.</u>	<u>Date</u>	<u>Affected Pages</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____



## TABLE OF CONTENTS

TITLE	PAGE NO.
<b>SECTION A GENERAL</b>	
A.1 ..... INTENT	A-1
A.2 ..... DEFINITIONS	A-1
A.3 ..... DEVELOPER'S RESPONSIBILITY	A-7
A.4 ..... DEVELOPMENT AGREEMENT	A-9
A.5 ..... CHANGES IN DESIGN STANDARDS	A-10
A.6 ..... INSPECTIONS AND FINAL ACCEPTANCE	A-10
A.7 ..... WARRANTY PERIOD	A-15
A.8 ..... UTILITY, PIPELINE AND RAILWAY CROSSINGS	A-16
A.9 ..... FRANCHISE UTILITIES	A-16
A.10 ..... EASEMENTS AND RIGHT OF WAY	A-17
A.11 ..... PERMITS AND LICENSES	A-17
<b>SECTION B GUIDELINES FOR GENERAL COMPLIANCE</b>	
B.1 ..... SUBMISSION REQUIREMENTS FOR LOT/SITE GRADING PERMIT	B-1
B.2 ..... PREREQUISITES TO REVIEW OF ENGINEERING DRAWINGS	B-3
B.3 ..... ENGINEERING DRAWING SUBMISSION & APPROVAL PROCEDURE	B-4
B.4 ..... GENERAL REQUIREMENTS FOR ENGINEERING DRAWINGS	B-4
B.5 ..... REPORTS AND STUDIES	B-8
B.6 ..... AS-CONSTRUCTED RECORD DRAWINGS	B-9
<b>SECTION C LAND USE DISTRICTS AND LEVELS OF SERVICE</b>	
C.1 ..... INTENT	C-1
C.2 ..... LAND USE DISTRICTS	C-1
C.3 ..... LAND USE DISTRICTS AND LEVEL OF SERVICE	C-2
C.3.1 ..... AGRICULTURAL (A) DISTRICT	C-2
C.3.2 ..... HAMLET RESIDENTIAL (H) DISTRICT	C-2
C.3.3 ..... COUNTRY RESIDENTIAL (CR) DISTRICT	C-3
C.3.4 ..... INDUSTRIAL/COMMERCIAL (IC) DISTRICT	C-3
C.3.5 ..... HEARTLAND INDUSTRIAL (HI) DISTRICT	C-4
C.3.6 ..... HEARTLAND AGRICULTURE (HA) DISTRICT	C-4
C.4 ..... PUBLIC WORKS	C-4
C.4.1 ..... ROAD CATEGORIES	C-4
C.4.2 ..... ARTERIAL ROADS	C-5
C.4.3 ..... LOCAL GRID ROADS	C-5
C.4.4 ..... UNDEVELOPED ROAD	C-6
C.4.5 ..... NOT OPEN	C-6
C.4.6 ..... SPECIAL PROJECTS	C-6
C.4.7 ..... MULTI-LOT RESIDENTIAL ROADS	C-6
C.4.8 ..... INTERNAL HAMLET ROADS	C-6
C.4.9 ..... OIL FIELD TRAFFIC ONLY	C-7



C.4.10.....	WATER SYSTEMS	C-7
C.4.10.1	PRIVATE WATER SYSTEMS	C-7
C.4.10.2	PIPED WATER DISTRIBUTION SYSTEMS	C-8
C.4.10.3	COMMUNAL WATER SYSTEMS	C-8
C.4.11.....	SANITARY SEWER SYSTEMS	C-8
C.4.11.1	PRIVATE SEWAGE SYSTEM ON RESIDENTIAL DEVELOPMENT	C-8
C.4.11.2	NON-RESIDENTIAL	C-9
C.4.11.3	PIPED SEWAGE SYSTEM	C-9
C.4.11.4	COMMUNAL SEWAGE SYSTEM	C-9
C.4.12.....	STORMWATER MANAGEMENT SYSTEMS	C-10
C.5.....	UNAUTHORIZED DEVELOPMENT	C-10
C.6.....	FIRE SMART	C-11

**SECTION D WATER DISTRIBUTION SYSTEM**

D.1.....	GENERAL	D-1
D.2.....	FLOW REQUIREMENTS	D-1
D.3.....	STORAGE REQUIREMENTS	D-3
D.4.....	PIPE SIZING	D-3
D.5.....	WATERMAIN ALIGNMENT AND LOCATION	D-4
D.6.....	REQUIRED DEPTH FOR WATERMAIN	D-5
D.7.....	VALVE LOCATION AND SPACING	D-5
D.8.....	HYDRANT LOCATION AND SPACING	D-6
D.9.....	WATER SERVICES	D-6
D.10.....	WATER PIPE MATERIALS	D-7
D.10.1.....	GENERAL	D-7
D.10.2.....	PVC	D-8
D.10.3.....	POLYETHYLENE	D-8
D.10.4.....	STEEL	D-9
D.10.5.....	CONCRETE, STEEL CYLINDER TYPE	D-10
D.11.....	LININGS AND COATINGS	D-10
D.12.....	FITTINGS	D-11
D.12.1.....	PVC FITTINGS	D-11
D.12.2.....	STEEL FITTINGS	D-11
D.12.3.....	CONCRETE, STEEL CYLINDER TYPE FITTINGS	D-12
D.13.....	COUPLINGS AND ADAPTORS	D-12
D.14.....	TAPPING SLEEVES	D-12
D.15.....	PIPE CASING	D-13
D.16.....	METERS	D-13
D.17.....	VALVES	D-13
D.17.1.....	VALVES – GENERAL	D-13
D.17.2.....	GATE VALVES FOR BURIED SERVICE (100mm to 300mm)	D-14
D.17.3.....	GATE VALVES IN CHAMBERS (450mm to 1500mm)	D-14
D.17.4.....	BUTTERFLY VALVES IN CHAMBERS (450mm & larger)	D-14
D.17.5.....	CHECK VALVES	D-15
D.17.6.....	PRESSURE REDUCING VALVES	D-16
D.17.7.....	FLOW CONTROL VALVES	D-16
D.17.8.....	AIR VALVES	D-16
D.18.....	HYDRANTS	D-16





D.19 .....	SERVICE CONNECTIONS	D-17
D.20 .....	CATHODIC PROTECTION	D-18
D.21 .....	TRENCHING, BEDDING AND BACKFILLING	D-18
D.22 .....	WATERMAIN INSTALLATION	D-20
D.23 .....	OPERATION OF BOUNDARY VALVES & EXISTING HYDRANTS	D-21
D.24 .....	VALVE INSTALLATION	D-21
D.25 .....	HYDRANT INSTALLATION	D-22
D.26 .....	SERVICE INSTALLATION	D-22
D.27 .....	INSPECTION AND TESTING	D-23
D.27.1 .....	INSPECTIONS	D-23
D.27.2 .....	COMPACTION TESTING	D-23
D.27.3 .....	PRESSURE TESTING	D-23
D.27.4 .....	HDPE PRESSURE TESTING	D-24
D.27.5 .....	DISINFECTION	D-26
D.28 .....	HYDRANTS	D-26
D.29 .....	SUMMARY OF WATER DISTRIBUTION SYSTEM STANDARDS	D-26

**SECTION E    SANITARY SEWER SYSTEM**

E.1.....	GENERAL	E-1
E.2.....	FLOW GENERATION RATES	E-1
E.3.....	GRAVITY SEWER PIPE SIZING	E-2
E.4.....	LOW PRESSURE SEWER SYSTEM SIZING	E-3
E.5.....	SANITARY SEWER ALIGNMENT AND LOCATION	E-4
E.6.....	REQUIRED DEPTH FOR SANITARY SEWERS	E-5
E.7.....	MANHOLE DESIGN AND LOCATION (GRAVITY SYSTEM)	E-6
E.8.....	SANITARY SERVICES	E-6
E.9.....	SANITARY SEWER MATERIALS	E-7
E.10.....	MANHOLE MATERIALS	E-9
E.11.....	TRENCHING, BEDDING AND BACKFILLING	E-10
E.12 .....	SEWER INSTALLATION	E-12
E.13.....	MANHOLE INSTALLATION	E-13
E.14.....	INSPECTION AND TESTING	E-13
E.15.....	SANITARY WASTEWATER PUMPING SYSTEM	E-15
E.15.1 .....	GENERAL	E-15
E.15.2 .....	STANDARDS AND APPROVALS	E-15
E.15.3 .....	LOCATION	E-15
E.15.4 .....	CONFIGURATION	E-15
E.15.5 .....	PUMPING STATION DESIGN	E-16
E.15.6 .....	VALVES AND PIPING	E-17
E.15.7 .....	WATER SUPPLY	E-17
E.15.8 .....	ALARM AND EMERGENCY BACKUP	E-18
E.15.9 .....	ACCESS AND MAINTENANCE	E-18
E.15.10 .....	HEATING AND VENTILATION	E-19
E.15.11 .....	LIFT STATION REQUIREMENTS	E-19
E.15.12 .....	FORCEMAINS	E-20
E.16.....	RURAL LOW-PRESSURE SANITARY SERVICING	E-21
E.16.1 .....	GENERAL	E-21
E.16.2 .....	ESTIMATING AVERAGE SEWAGE FLOWS	E-21



E.16.3 .....	PIPE SIZING	E-22
E.16.4 .....	SYSTEM MATERIALS	E-22
E.16.5 .....	SUMMARY OF SANITARY SEWER SYSTEM STANDARDS	E-31

**SECTION F STORMWATER MANAGEMENT SYSTEM**

F.1 .....	GENERAL	F-1
F.2 .....	MINOR SYSTEM	F-2
F.2.1 .....	FLOW RATES	F-2
F.2.2 .....	PIPE SIZING	F-4
F.2.3 .....	STORM SEWER ALIGNMENT AND LOCATION	F-6
F.2.4 .....	REQUIRED DEPTH FOR STORM SEWER AND CATCH BASIN LEADS	F-6
F.2.5 .....	MANHOLE DESIGN AND LOCATION	F-7
F.2.6 .....	STORM SERVICES AND FOUNDATION DRAINS	F-7
F.2.7 .....	CATCH BASINS AND LEADS	F-8
F.2.8 .....	STORM SEWER MATERIALS	F-9
F.2.9 .....	MANHOLE MATERIALS	F-11
F.2.10 .....	CATCH BASIN MATERIALS	F-12
F.2.11 .....	TRENCHING, BEDDING AND BACKFILLING	F-12
F.2.12 .....	STORM SEWER INSTALLATION	F-15
F.2.13 .....	MANHOLE INSTALLATION	F-15
F.2.14 .....	INSPECTION AND TESTING	F-16
F.3 .....	MAJOR SYSTEM	F-17
F.3.1 .....	GENERAL	F-17
F.3.2 .....	LOT GRADING	F-19
F.3.3 .....	SWALES	F-19
F.3.4 .....	ROADWAYS	F-20
F.3.5 .....	STORMWATER STORAGE FACILITIES	F-20
F.3.5.1 .....	GENERAL	F-20
F.3.5.2 .....	DESIGN STANDARDS FOR LAKES AND WET PONDS	F-22
F.3.5.3 .....	DESIGN STANDARDS FOR DRY PONDS	F-23
F.5.3.4 .....	INLETS, OUTLETS AND OUTFALL STRUCTURES	F-24
F.3.6 .....	EROSION AND SEDIMENT CONTROL (ESC) PLAN	F-25
F.4 .....	SUMMARY OF SANITARY SEWER SYSTEM STANDARDS	F-26

**SECTION G TRANSPORTATION**

G.1 .....	INTENT	G-1
G.2 .....	LEVEL OF SERVICE ROADWAYS	G-2
G.3 .....	GENERAL	G-2
G.4 .....	DESIGN CRITERIA	G-2
G.5 .....	DESIGN DESIGNATION	G-3
TABLE 1 .....	GEOMETRIC DESIGN REQUIREMENTS	G-4
G.6 .....	STRIPPING TOPSOIL	G-5
G.7 .....	PAVEMENT STRUCTURE	G-5
G.8 .....	SUBGRADE PREPARATION	G-5
G.9 .....	PIT-RUN MATERIAL	G-6
G.10 .....	BASE COURSE	G-6
G.11 .....	CUL-DE-SACS	G-7



G.12 .....	INTERSECTIONS	G-7
G.13 .....	CONCRETE CURB AND GUTTERS	G-8
G.14 .....	SIDEWALKS AND PAVED STRUCTURES	G-9
G.15 .....	GRANULAR WALKWAYS AND WOOD MULCH HIKING TRAILS	G-10
G.16 .....	APPROACHES	G-11
G.17 .....	SIGNAGE	G-12
G.18 .....	DRAINAGE AND CULVERTS	G-14
G.19 .....	ROAD GRAVELING (RURAL ROADS)	G-15
G.20 .....	PAVEMENT PAYMENT PENALTIES	G-15
G.21 .....	PARKING FACILITIES	G-15

**SECTION H LANDSCAPING**

H.1 .....	GENERAL	H-1
H.2 .....	COMMERCIAL AND INDUSTRIAL	H-1
H.3 .....	STREET NAMES	H-1
H.4 .....	TOPSOIL AND SEEDING	H-1
H.5 .....	TREES AND SHRUBS	H-3
H.6 .....	FENCING	H-5
H.7 .....	LANDSCAPING BERMS	H-5
H.8 .....	LANDSCAPING REQUIREMENTS FOR PARKING FACILITIES	H-5
H.9 .....	MAILBOXES	H-6

**SECTION I STREETLIGHTING**

I.1 .....	STANDARDS AND GUIDELINES	I-1
I.2 .....	ENGINEERING DRAWINGS AND APPROVALS	I-1
I.3 .....	DESIGN AND OPERATION	I-1
I.4 .....	SAFETY	I-2
I.5 .....	ENERGY USAGE	I-2
I.6 .....	POLE LOCATION	I-2
I.7 .....	TYPE OF POLE	I-2
I.8 .....	AESTHETICS	I-3
I.9 .....	FOUNDATIONS	I-3
I.10 .....	LUMINAIRES	I-3
I.11 .....	COSTS	I-4

**SECTION J RURAL FIRE PROTECTION**

J.1 .....	GENERAL	J-1
J.2 .....	PURPOSE AND PROFESSIONAL INVOLVEMENT	J-2
J.3 .....	DEFINITIONS AND FORMULAS	J-2
J.4 .....	WATER SUPPLY REQUIREMENTS	J-4
J.5 .....	FACILITY PLANNING CONSIDERATIONS	J-6
J.6 .....	GENERAL DESIGN CONSIDERATIONS	J-8
J.7 .....	IN-GROUND OPEN STORAGE PONDS – DESIGN CONSIDERATIONS	J-10
J.8 .....	STORAGE TANKS/CISTERNS – DESIGN CONSIDERATIONS	J-12
J.9 .....	FEES AND DEVELOPMENT LEVIES	J-13
J.10 .....	REFERENCES	J-13





## LIST OF DRAWINGS & FORMS

---

### SECTION A GENERAL

- A1-1 CONSTRUCTION COMPLETION CERTIFICATE
- A1-2 FINAL ACCEPTANCE CERTIFICATE

### SECTION D WATER DISTRIBUTION SYSTEM

- D-01 ..... STANDARD TRENCH BEDDING FOR CIRCULAR PIPES
- D-02 ..... STANDARD TRENCH DIMENSIONS FOR CIRCULAR PIPE
- D-03 ..... HORIZONTAL CONCRETE THRUST BLOCK DETAILS
- D-04 ..... FLUSH POINT DETAIL
- D-05 ..... TYPICAL HYDRANT CONNECTION
- D-06 ..... TYPICAL CASING PIPE WITH INSULATOR
- D-07 ..... TYPICAL SERVICES (SINGLE & DUAL)
- D-08 ..... SERVICE BOX DETAIL FOR 50MM AND SMALLER WATER SERVICE
- D-09 ..... TYPICAL 50MM & SMALLER WATER SERVICE FOR 300mm AND SMALLER WATERMAINS
- D-10 ..... ANODE ON 50MM & SMALLER COPPER WATER SERVICE
- D-11 ..... TYPICAL ANODE INSTALLATION AT STEEL OR IRON FITTINGS USED WITH PVC WATERMAINS
- D-12 ..... ANODE INSTALLATION FOR STEEL AND IRON WATERMAINS
- D-13 ..... ANODE INSTALLATION AT HYDRANT
- D-14 ..... HYDRANT BOLLARD PLACEMENT FOR INDUSTRIAL/COMMERCIAL DEVELOPMENT

### SECTION E SANITARY SEWER SYSTEM

- E-01 ..... STANDARD TRENCH BEDDING FOR CIRCULAR PIPES
- E-02 ..... STANDARD TRENCH DIMENSIONS FOR CIRCULAR PIPE
- E-03 ..... STANDARD 1200mm MANHOLE
- E-04 ..... NECK SECTION DETAILS FOR STANDARD 1200 MANHOLE
- E-05 ..... 635 NECK RING
- E-06 ..... TYPE 6A COVER AND FRAME
- E-07 ..... FLOATING MANHOLE FRAME AND COVER TYPE NF-80 AND NF-90
- E-08 ..... SAFETY STEPS FOR MANHOLES
- E-09 ..... TYPICAL SERVICES (SINGLE & DUAL)
- E-10 ..... TYPICAL SUMP PUMP DISCHARGE CONNECTION SERVICES
- E-11 ..... COUNTRY RESIDENTIAL SUBDIVISION ROAD
- E-12 ..... FLEXIBLE DELINEATOR POSTS

### SECTION F STORMWATER MANAGEMENT SYSTEM

- F-01 ..... STANDARD TRENCH BEDDING FOR CIRCULAR PIPES
  - F-02 ..... STANDARD TRENCH DIMENSIONS FOR CIRCULAR PIPE
  - F-03 ..... STANDARD 1200mm MANHOLE
  - F-04 ..... STANDARD 1200mm C.B. MANHOLE
  - F-05 ..... PRECAST 610 CATCH BASIN
  - F-06 ..... STANDARD 900 CATCH BASIN WITH TYPE DK-7 GRATING AND FRAME
  - F-07 ..... NECK SECTION DETAILS FOR STANDARD 1200 MANHOLE
- 



- F-08 ..... NECK RINGS
- F-09 ..... K-7 NECK RING
- F-10 ..... SLAB TOPS FOR STANDARD 900 CATCH BASIN
- F-11 ..... TWO PIECE TYPE 4A GRATING AND FRAME
- F-12 ..... FRAME AND GRATING TYPE 6 AND 8
- F-13 ..... TYPE 6A COVER AND FRAME
- F-14 ..... FLOATING MANHOLE FRAME AND COVER TYPE NF-80 AND NF-90
- F-15 ..... FRAME & GRATING TYPE K-7
- F-16 ..... SAFETY STEPS FOR MANHOLES
- F-17 ..... TYPICAL SERVICE (SINGLE & DUAL)

**SECTION G SUBDIVISION ROADWAYS**

- G-01 ..... TYPICAL CROSS SECTION FOR GRADING & GRAVEL SURFACING RLU-207G
- G-02 ..... TYPICAL CROSS SECTION FOR GRADING & GRAVEL SURFACING RLU-208G(a)
- G-03 ..... TYPICAL CROSS SECTION FOR GRADING & GRAVEL SURFACING RLU-208G(b)
- G-04 ..... TYPICAL CROSS SECTION FOR GRADING & GRAVEL SURFACING RLU-209G
- G-05 ..... TYPICAL CROSS SECTION FOR GRADING & GRAVEL SURFACING RLU-210G
- G-06 ..... TYPICAL CROSS SECTION FOR ASPHALT STABILIZED BASE COURSE SURFACING RLU-208
- G-06A ..... TYPICAL CROSS SECTION FOR ASPHALT STABILIZED BASE COURSE SURFACING W/ 3.0M GRANULAR WALKWAY
- G-07 ..... TYPICAL CROSS SECTION FOR ASPHALT CONCRETE PAVEMENT SURFACE RLU-208
- G-07A ..... Typical Cross Section For Asphalt Concrete Pavement Surface W/ 3.0M GRANULAR WALKWAY
- G-08 ..... TYPICAL CROSS SECTION FOR ASPHALT STABILIZED BASE COURSE SURFACING RLU-209(a)
- G-09 ..... TYPICAL CROSS SECTION FOR ASPHALT CONCRETE PAVEMENT SURFACING RLU-209(b)
- G-10 ..... TYPICAL CROSS SECTION FOR ASPHALT CONCRETE PAVEMENT SURFACING RLU-210
- G-11 ..... TYPICAL CROSS SECTION FOR ASPHALT CONCRETE PAVEMENT SURFACING RLU-211
- G-12 ..... TYPICAL CROSS SECTION FOR & UTILITIES LAYOUT ULU-209
- G-13 ..... TYPICAL CROSS SECTION & UTILITIES LAYOUT ULU-211.5
- G-14 ..... TYPICAL CUL-DE-SAC DETAIL URBAN AND RURAL STANDARD
- G-15 ..... RESIDENTIAL / INDUSTRIAL APPROACH STANDARD
- G-16 ..... MAJOR INTERSECTION LAYOUT INDUSTRIAL – RURAL STANDARD
- G-17 ..... ACCESS & DEVELOPMENT CONTROL MUNICIPAL GRID ROAD INTERSECTION
- G-18 ..... ROLL FACE MONOLITHIC WALK & GUTTER
- G-19 ..... 1.5M MONOLITHIC WALK WITH 150 CURB & GUTTER
- G-20 ..... CONCRETE WALKWAY
- G-21 ..... GRANULAR WALKWAY
- G-22 ..... PAVED WALKWAY / BIKEPATH
- G-23 ..... WHEELCHAIR / BIKE RAMP
- G-24 ..... 150 CURB WITH 250 GUTTER
- G-25 ..... 150 CURB WITH 500 GUTTER
- G-26 ..... ROLL FACE CURB AND GUTTER
- G-27 ..... 500 & 1000 CONCRETE GUTTER (SWALE)
- G-28 ..... DEPRESSED CURB & GUTTER FOR CATCH BASIN
- G-29 ..... HAND PLACED RIP-RAP FOR PIPE CULVERTS
- G-30 ..... TYPICAL VIEWS OF A DITCH BLOCK
- G-31 ..... TYPICAL TRAFFIC SIGN LAYOUT RURAL STANDARD
- G-32 ..... SUBDIVISION SIGNS
- G-33 ..... EMERGENCY LANE ACCESS DETAIL



**SECTION H LANDSCAPING**

H-01 ..... TYPICAL MAILBOX PULLOUT LOCATION

H-02 ..... CHAIN LINK FENCE DETAIL

H-03 ..... WOOD SCREEN FENCE DETAIL



## APPENDIX

---

### LAMONT COUNTY DEVELOPMENT AGREEMENTS

DEVELOPMENT AGREEMENT – SINGLE STAGE

SHORT FORM DEVELOPMENT AGREEMENT – DEVELOPMENT PERMIT

SHORT FORM DEVELOPMENT AGREEMENT – SUBDIVISION APPROVAL





This page intentionally left blank



## SECTION A GENERAL

---

### A.1 INTENT

**A.1.1** The General Municipal Servicing Standards (GMSS) is intended to provide specific guidelines to assist the County and Developer in the design, preparation and submission of plans and specifications for construction of municipal improvements and systems (roads, water distribution systems, low-pressure/gravity sewer systems, storm water management facilities) that will meet the servicing requirements for commercial, industrial and residential subdivision development within Lamont County.

**A.1.2** The General Municipal Servicing Standards (GMSS) have been developed with two goals in mind:

**A.1.2.1** The GMSS ensure that the County is provided with a quality product that will meet an acceptable long-term life expectancy while maintaining cost efficiency and practicality so as not to prohibit land development.

**A.1.2.2** To minimize the maintenance requirements associated with land development.

**A.1.3** The General Municipal Servicing 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 the use of standards that are more stringent.

**A.1.4** The General Municipal Servicing Standards, as well as the latest editions of any referenced legislation or document, form part of the requirements for the design and construction of any project within Lamont County.

### A.2 DEFINITIONS

**Adjacent** refers to those lands next to the development or subdivision area and includes those lands severed by a road, utility right-of-way, railroad, river, stream, reserve lands or other means of natural barrier.



**Consulting Engineers** shall mean the consulting professional engineer(s) retained by the Developer.

**Construction Completion Certificate** shall mean a certificate issued pursuant to Article V(2) of the Development Agreement and shall be in the format as shown Schedule B of the Development Agreement.

**County** shall mean Lamont County.

**County Property** shall mean:

- i) any property owned or leased by the County developed for use as public park, sports field, playground or other recreational area;
- ii) un-developed reserve land as either; reserve, municipal reserve, school reserve, environment reserve or combination of reserves;
- iii) municipal right-of-way including all forms of public roadways (roads, lanes streets, highways) sidewalks, boulevards, road allowances, utility right-of-ways, public utility lots, public spaces undeveloped right-of-ways and storm water management facilities, bridges, culverts and water bodies;
- iv) any property developed as a pathway or park trail system;
- v) any property owned or titled to the County including buildings, structures and parking facilities.

**CAO** shall mean the Chief Administrative Officer, or designate, of Lamont County.

**Council** shall mean persons duly elected to the Council of Lamont County. **Completion Certificate** shall mean a certificate issued pursuant to Article V (2) of the Development Agreement and shall be in the form attached as Schedule B.

The **Developer** shall mean the proponent of a land development proposal, or the Owner as defined in the Development Agreement.

The **Developer's Engineer** shall mean the professional engineer(s) and/or firm retained by the Developer for the preparation of design, reports, studies, engineering drawings, specifications and all other documents associated with the design and construction of the municipal improvements.



**Development** means the carrying out of any construction or excavation or other operations, in, on, over or under land, or the making of any change in the use or the intensity of use of any land, buildings or premises.

The **Development Agreement** shall mean documents specifying the terms and conditions for the construction of municipal improvements necessary to service the approved subdivision or industrial development and shall have requirements for engineered plans, and requirements for Construction Completion Certificates and Final Acceptance Certificates.

**Development Area** shall mean the lands as described in schedule A and as shown in Schedule A-1 of the Development Agreement.

**Development Approving Authority(s)** means that person(s) designated and known to be the Development Authority to exercise the duties and powers and perform the functions prescribed in the Land Use Bylaw pursuant to the municipality's Development Authority Bylaw.

**Development Agreement** is a legal document the municipality requires the developer to enter into. The municipality reserves the right to amend from time to time.

**External Road** means any public road which is not an internal road or provincial highway.

**External Local Improvements** shall mean all of the Local Improvements or the portions thereof to be constructed by the Developer outside of the Subdivision as described on Schedule D of the Development Agreement.

**Final Acceptance Certificate** shall mean a certificate issued pursuant to Article V (8) of the Development Agreement and as shown as Schedule C of the Development Agreement.

**General Design Standards** shall mean the General Municipal Servicing Standards as amended by the County and approved by the Municipal Engineer for construction and installation of the local improvements.

**Geotechnical Report** means a document prepared by an Engineer, Geological or Geophysical Professional 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** means to level or grade the development area to a desired vertical and horizontal gradient.

**Internal Road** means a public road, 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 case the internal roads are privately owned.

**Internal Local Improvements** shall mean all of the Local Improvements or the portions thereof to be constructed by the Development within the Subdivision which is described and specified on Schedule D of the Development Agreement (Specifically includes lighting).

**Local Improvements, External** shall mean all of the local improvements or the portions thereof to be constructed by the Developer outside of the subdivision as described on Schedule D of the Development Agreement.

**Local Improvements, Internal** shall mean all of the local improvements or the portions thereof to be constructed by the Developer within the subdivision as described on Schedule D of the Development Agreement.

**Maintenance** shall mean the Developer shall only be responsible for defects and deficiencies in materials or workmanship and any failure of the Local Improvements to comply with the General Municipal Servicing Standards and the Plans and Specifications. Lamont County shall provide the subdivision with such municipal services during the Warranty Period for the Internal Local Improvements and the External Local Improvements as are normally available to the other residence of Lamont County.

The **Municipal or Local Improvements** shall mean the installation of municipal services including, but not limited to, roads, water and sewer systems, storm sewer, and stormwater management systems, landscaping, street lighting, power, gas and telecommunication as required and specified in the Development Agreement.

The **Municipal Engineer** shall mean the professional engineer(s) and/or firm employed by the County to review, inspect and recommend approval or rejection of the work proposed or performed by the Developer under the terms of the Development Agreement.

**Off Site Levies** means the monies collected by the municipality from the developer or industry to assist with the payment of the portion of the off-site services that the development will utilize.



**Order** means an order issued under the Land Use Bylaw in accordance with the Municipal Government Act. Or an order issued under provisions of other municipal bylaws and the governing Provincial Act.

The **Permit, Building** means a certificate or document permitting the construction or alteration of a building or structure, which constitutes part, or all of the specified development. The permit issuance is in accordance with the minimum requirements of the Alberta Building Code.

The **Permit, Development** means a certificate or document permitting a specified development and includes, where applicable a plan or drawing, or a set of plans or drawings, specifications or other documents as authorized by the Development Approving Authority to proceed with the specific development.

**Person** means one or more individuals, partnerships, corporate bodies, unincorporated organizations, government body, trustees, executors, administrators or legal representative other than Lamont County or its legal counsel.

**Plans and Specifications** shall mean plans, specifications, material lists and performance criteria for the Local Improvements approved by the Municipal Engineer covering design, construction and installation of the local improvements.

**\*\*Private Sewage Disposal System** means a system for the on-site treatment and/or disposal of sewage and includes all components downstream of a point starting 1800 mm (6 ft) or less, upstream of any septic tank, packaged sewage treatment plant, sewage holding tank or the berm of a sewage lagoon but does not include a building drain.

**Private Property** means land owned by a person, group, corporation or entity that is not a government body.

**Property** means 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 Lamont County.

## Road Base Sieve Size

TABLE 9.2.9.1. SPECIFICATIONS FOR AGGREGATE

DESIGNATION	1		2				3				4				5		6		7	
	19	25	30	37.5	47.5	60	75	95	119	150	190	250	300	375	475	600	750	950	1190	
Percent Passing	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Maximum Size	19	25	30	37.5	47.5	60	75	95	119	150	190	250	300	375	475	600	750	950	1190	
Minimum	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
Standard Deviation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

Designation 1 - Asphalt Concrete Pavement Aggregate  
 Designation 2 - Base Course Aggregate  
 Designation 3 - Sub-base Aggregate  
 Designation 4 - Driveway Aggregate  
 Designation 5 - Sealing Material  
 Designation 6 - For Hot Asphalt Fill  
 Designation 7 - Cement Stabilized Base Course Aggregate

Notes:  
 1) Asphalt Concrete Mix Type 1 - 95% (1 inch)  
 Asphalt Concrete Mix Type 2 - 75%  
 Other Asphalt Concrete Mix Types - 60%  
 2) Designation 3 Class 16 Material in the ASBC  
 3) For crushed aggregate other than all Designation 7 and Designation 6 material, a tolerance of three percent in the maximum grading the maximum test sieve and in percentage retained at various nominal sizes the next larger standard sieve size.

**Suitable Development Area** means that each residential lot created by subdivision either a single lot or multi-lot development is suitable for the construction and use of a residence, ancillary building, an access road, a privately owned domestic water cistern and a private sewage treatment system.

**Unauthorized Use** means the use of County property either by constructing, storing, landscaping, erecting, placement or removal of any structure, item or thing on, over or in County property without written authorization from the County;

- i) the placement of surface structures such as a driveway, parking area, walkway, patio, deck, stairs or retaining wall;
- ii) permanent buildings, re-locatable structures or accessory structures such as a detached garage, barn, shed, greenhouse, lean-to compost;



- iii) Landscaping including fencing, fire pits or fire wood storage, the addition or removal of vegetation or a use that interferes with the growth of vegetation;
- iv) Installation of utilities, antenna, satellite receiving dish or other telecommunication facilities;
- v) Storage of vehicle(s) or trailer(s) or off-road equipment, building material, rubble, stockpiles, debris or chattel;
- vi) Site drainage including the use of pipes, culverts, catch basins, ditches, swales, sump drainage, dry wells, sewage disposal systems, detention ponds or related ancillary structures,
- vii) Digging, cutting excavating or filling.

**Units of Measurement** the standard unit of measurement is metric and any reference to imperial measurement units is for convenience purposes only.

**Utilities** shall mean those utilities together with all necessary appurtenances, which are described in Schedule E of the Development Agreement.

**Utilities, franchise** shall mean those utilities provided by a service company such as; electrical service, natural gas, telephone or cable television.

**Warranty Period be in accordance with Policy # AD 021** as amended from time to time:

- i) Shall mean the following: The warranty period will be defined in the Development Agreement and will be for a term of 3 years from the date of issuance of the CCC. The development agreement will allow the County to extend this warranty period to a term of 5 years if issues arise during the period where the County believes an extended warranty would be of benefit to protect the County interest.

### **A.3 DEVELOPER'S RESPONSIBILITY**

**A.3.1** The Developer shall at his own cost and expense, provide the following:





- A.3.1.1** Design and construction of the required municipal improvements including necessary off-site upgrades and utility over sizing associated with the Development.
  - A.3.1.2** Quality control and materials testing by an independent qualified professional engineer, during utility installation and roadway construction. Certification by the Professional Engineer that the construction has been completed in accordance with the approved drawings and specifications will be required.
  - A.3.1.3** Legal and all other costs incurred by the County for the preparation and execution of the Development Agreement.
  - A.3.1.4** The engineering and inspection costs incurred by the Municipal Engineer, for the review and approval of the design and construction of the required municipal improvements.
  - A.3.1.5** Acquisition of additional land for road widening and municipal services as required.
  - A.3.1.6** Registration with Alberta Land Titles all easements including plans and documents for the construction of municipal improvements outside of the municipal right-of-way.
  - A.3.1.7** A Plan of the Subdivision in accordance with the Plan approved by the County's Subdivision Approving Authority shall be registered at the Land Titles Office.
  - A.3.1.8** The Developer will supply both digital and hard copy of the Plan of Subdivision drawings and As-built drawings for the development or subdivision infrastructure to the County.
- A.3.2** The Developer shall be responsible for satisfying all statutory requirements governing such works and obtaining approvals for compliance with those requirements from the authorities having jurisdiction. Where conflicts or inconsistencies with the GMSS and referenced documents arise due to compliance with or amendment of statutory requirements, the Developer shall be responsible for satisfying the more stringent requirement.
- A.3.3** It is the Developer's responsibility to satisfy the requirements established in the GMSS unless stated otherwise, all design criteria, materials, installation and testing shall be in accordance with the most recent editions of the referenced documents:

*Public Lands Act,*  
*Municipal Government Act,*  
*Water Act,*  
*Environmental Protection & Enhancement Act,*  
*Canadian Environmental Assessment Act,*  
*Fisheries Act,*  
*Species at Risk Act,*  
*Navigable Water Protection Act,*  
*Safety Codes Act,*  
*Rural Utilities Act,*  
*Provincial Offences Procedures Act,*  
*Plumbing Code,*  
*Alberta Private Sewage Standards of Practice*  
*Alberta Building Code,*  
*Provincial Wetlands Policy,*  
*Alberta Environment, Standards and Guidelines for Municipal Waterworks,*  
*Wastewater and Storm Drainage Systems*  
*Lamont County General Municipal Servicing Standards*  
*Alberta Highway Design Guide*  
*Transportation Association of Canada (TAC) Geometric Design Guidelines*  
*TAC Uniform Traffic Control Devices for Canadian Roads*  
*TAC Highway Lighting Design Guide*  
*Municipal Bylaws, other*  
*Provincial/Federal Government Authorities*

**A.3.4** It is the Developer's or their consultant's responsibility to obtain, at their own cost copies of the referenced documents from the applicable authority.

**A.3.5** The compiled list of referenced documents is not meant to be all inclusive, addition standards and documents may be listed in specific Sections of the GMSS for reference. The Developer and Developer's Engineer remain responsible for the design and construction of their development according to accepted engineering practices.

#### **A.4 DEVELOPMENT AGREEMENT**

**A.4.1** Developer shall enter into a Development Agreement with the County prior to the construction and installation of municipal improvements. There shall be no Building Permit issued for any construction on a particular lot within the subdivision until all municipal improvements are in place and accepted by the County and endorsement of the subdivision plans and registration at Alberta Land



Titles is completed. The Development Agreement will have requirements for Construction Completion Certificates(CCC) and Final Acceptance Certificates (FAC).

**A.5 CHANGES IN DESIGN STANDARDS**

**A.5.1** It is the Developer's responsibility to ensure that the design and construction is in compliance with the latest edition of the General Municipal Servicing Standards including any revisions thereto up to the date of acceptance of the detailed design.

**A.6 INSPECTIONS AND FINAL ACCEPTANCE**

**A.6.1** Upon completion of all municipal improvements, the Developer shall give notice to the County and arrange for inspections. Upon the receipt of a Construction Completion Certificate from the Developer, the Municipal Engineer, on behalf of the County, shall inspect the municipal improvements, prepare a deficiency list, and forward it to the Developer through the County.

**A.6.2** All deficiencies shall be rectified to the satisfaction of the Municipal Engineer prior to the acceptance and approval of the Construction Completion Certificate by the County and the Municipal Engineer.

**A.6.3** The warranty period shall commence upon acceptance and approval of the Construction Completion Certificate. During this period, the Developer shall repair any defect in material or workmanship.

**A.6.4** Prior to the expiry of the warranty period, the developer shall notify the County and arrange for an inspection. Upon the correction of all deficiencies satisfactory to the Municipal Engineer, the Developer's Engineer shall issue a request for the Final Acceptance Certificate for municipal improvements.

Examples of CCC & FAC





Lamont County  
5303 – 50<sup>th</sup> Avenue  
Lamont, AB  
T0B 2B0

**CONSTRUCTION  
COMPLETION  
CERTIFICATE  
Form A1-1**

Development Application No.: \_\_\_\_\_  
Developer: \_\_\_\_\_  
Contractor: \_\_\_\_\_  
Municipal Improvement: \_\_\_\_\_  
Location of Municipal Improvement: \_\_\_\_\_  
Date of Application for Construction Completion: \_\_\_\_\_

PURSUANT TO THE DEVELOPMENT AGREEMENT, I \_\_\_\_\_ OF THE FIRM  
\_\_\_\_\_ ("CONSULTING ENGINEERS"), HEREBY CERTIFY COMPLIANCE  
WITH THE SERVICING STANDARDS AS SET OUT IN THE DEVELOPMENT AGREEMENT, AND RECOMMEND  
APPROVAL FOR CONSTRUCTION COMPLETION OF THE MUNICIPAL IMPROVEMENT.

\_\_\_\_\_  
Project Engineer (Consulting Engineering Firm)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signing Officer (Consulting Engineering Firm)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Authorized by Lamont County's Representative

\_\_\_\_\_  
Date

\_\_\_\_\_  
Director of Public Works & Engineering

\_\_\_\_\_  
Date

- Approved
- Conditionally Approved  
(See Attached Deficiency List)
- Rejected  
(See Attached Deficiency List)

**For Internal Use Only**

Total Amount of Letter of Credit: \_\_\_\_\_  
Amount Retained for Deficiencies: \_\_\_\_\_  
Amount Retained for Maintenance: \_\_\_\_\_  
Amount Released with CCC: \_\_\_\_\_

I HEREBY CERTIFY THAT THE ITEMS LISTED AS REASONS FOR CONDITIONAL APPROVAL / REJECTION HAVE  
BEEN CORRECTED AS INDICATED ON THE ATTACHED DEFICIENCY LIST.

\_\_\_\_\_  
Project Engineer (Consulting Engineering Firm)

\_\_\_\_\_  
Date

Approved:

\_\_\_\_\_  
Director of Public Works & Engineering

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date Maintenance / Warranty Period to Start:

\_\_\_\_\_  
Scheduled Maintenance / Warranty Expiry Date:



Lamont County  
5303 – 50<sup>th</sup> Avenue  
Lamont, AB  
T0B 2B0

CONSTRUCTION  
COMPLETION  
CERTIFICATE  
Form A1-1

### Deficiency List

Item No.	Deficiency Description	Amount of LOC Retained for Deficiency	Re-Inspection Date	Noted Complete	
				Consultant's Initials	M.D. Rep's Initials

### Additional Comments

.....  
.....  
.....  
.....  
.....



Lamont County  
5303 – 50<sup>th</sup> Avenue  
Lamont, AB  
T0B 2B0

FINAL  
ACCEPTANCE  
CERTIFICATE  
Form A1-1

Development Application No.: \_\_\_\_\_

Developer: \_\_\_\_\_

Contractor: \_\_\_\_\_

Municipal Improvement: \_\_\_\_\_

Location of Municipal Improvement: \_\_\_\_\_

Date of Application for Final Acceptance: \_\_\_\_\_

Scheduled Maintenance / Warranty Expiry Date: \_\_\_\_\_

PURSUANT TO THE DEVELOPMENT AGREEMENT, I \_\_\_\_\_ OF THE FIRM \_\_\_\_\_ ("CONSULTING ENGINEERS"), HEREBY CERTIFY THAT AS OF THE ABOVE DATE, THE SAID MUNICIPAL IMPROVEMENT MEETS ALL OF THE REQUIREMENTS FOR FINAL ACCEPTANCE AS SPECIFIED BY THE DEVELOPMENT AGREEMENT, AND RECOMMEND THE MUNICIPAL IMPROVEMENT FOR FINAL ACCEPTANCE.

\_\_\_\_\_  
Project Engineer (Consulting Engineering Firm) Date

\_\_\_\_\_  
Signing Officer (Consulting Engineering Firm) Date

\_\_\_\_\_  
Authorized by Lamont County's Representative Date

\_\_\_\_\_  
Director of Public Works & Engineering Date

- Approved
- Rejected

*(See Attached Outstanding Deficiency List)*

**For Internal Use Only**

LOC Amount Remaining from CCC: \_\_\_\_\_

Amount Retained for Deficiencies: \_\_\_\_\_

Amount Retained for Maintenance: \_\_\_\_\_

Amount Released with FAC: \_\_\_\_\_

I HEREBY CERTIFY THAT THE ITEMS LISTED AS REASONS FOR REJECTION HAVE BEEN CORRECTED.

\_\_\_\_\_  
Project Engineer (Consulting Engineering Firm) Date

\_\_\_\_\_  
Approved:

\_\_\_\_\_  
Director of Public Works & Engineering Date

\_\_\_\_\_  
Date Maintenance / Warranty to Expire:



Lamont County  
 5303 – 50<sup>th</sup> Avenue  
 Lamont, AB  
 T0B 2B0

FINAL  
 ACCEPTANCE  
 CERTIFICATE  
 Form A1-1

**Outstanding Deficiency List**

Item No.	Deficiency Description	Amount of LOC Retained for Deficiency	Re-Inspection Date	Noted Complete	
				Consultant's Initials	M.D. Rep's Initials

**Additional Comments**

.....

.....

.....

.....

## A.7 WARRANTY PERIOD

A.7.1 In an effort to be both fair and consistent when dealing with large development projects, the County has created a policy to outline the requirements associated transparency to both the County rate-payers and those in the development field.

A.7.2 Lamont County will adhere to the guidelines outlined within this policy when dealing with development agreements for multi-lot subdivision developments within the County. This policy will clearly outline the following items:

- how the County will determine Security for the development,
- the form of the security accepted by the County,
- the amount of security to be taken,
- the warranty timelines and
- the triggering events that will allow the County to release portions of security.

A.7.3 Lamont County will require Stamped Engineer Drawings and Cost Estimates for all Municipal Infrastructure associated with the proposed development. These estimated figures will be verified by County Engineers and inserted into the 'Security' Schedule of the Development Agreement.

A.7.3.1 Lamont County will require 100% of the total costs outlined within the 'Security' Schedule of the Development Agreement, either in the form of a certified bank draft or a self-renewing irrevocable letter of credit **PRIOR TO ENDORSEMENT** of the subdivision outlined within the agreement, for Security purposes.

A.7.3.2 The security will be held in its entirety until a Construction Completion Certificate (CCC) is issued by the County. Verification that the built infrastructure meets County standards will require the submission of engineering tests and reports to the satisfaction of the County. Additionally, if the Developer is able to provide the County with the servicing agreements and payment receipts for 'Shallow Buried Utilities' (Gas, Power, Telephone Etc.), as shown within the Development Agreement, these costs will not be included in the Security.

A.7.3.3 Upon issuance of a CCC the County will release 35% of the TOTAL costs for the infrastructure. For clarification, the County will retain 25% of the cost for TOTAL infrastructure outlined within the 'Security' Schedule of the Development Agreement.





A.7.3.4 The 25% security will be retained by the Lamont County for warranty purposes. The warranty period will be defined in the Development Agreement and will be for a term of 3 years from the date of issuance of the CCC. The development agreement will allow the County to extend this warranty period to a term of 5 years if issues arise during the period where the County believes an extended warranty would be of benefit to protect the County interest.

A.7.3.5 Following the warranty period, Lamont County will be in a position to issue a Final Acceptance Certificate (FAC) for the development. Subject to the satisfaction of the County, the FAC will be issued for the specific infrastructure and the County will release the remaining 25% of the security.

A.7.4 Where there is a delay in the application of the final layer of asphalt on the internal roads and approaches, the warranty period for the internal roads and approaches shall be extended for a period of twelve (12) months from the date of acceptance of the Construction Completion Certificate by the County for the final layer of asphalt.

A.7.5 The Developer shall provide, for the duration of the warranty period, an irrevocable Letter of Credit as required by the County.

## **A.8 UTILITY, PIPELINE AND RAILWAY CROSSINGS**

A.8.1 The Developer shall be responsible for obtaining the Crossing Agreement where a crossing of utility, roadway, pipeline or railway is required for the installation of the municipal improvements.

A.8.2 The Developer shall comply with all terms and conditions of the Crossing Agreement and make application to transfer the Agreement to the County's name prior to the application for a Construction Completion Certificate.

## **A.9 FRANCHISE UTILITIES**

The developer shall be responsible for all coordination with franchise utilities including design and installation. The Developer shall be responsible for any deficiencies noted as a result of installation such as curb damage, trench settlement or final boulevard grading.



#### **A.10 EASEMENT AND RIGHT OF WAY**

The Developer shall be responsible for obtaining all easements and right of ways for the installation of municipal improvements located outside of the normal right-of-way or utility lot. All permanent easements, including plans and documents, shall be registered at the Land Titles Office naming the County as the Grantor prior to application for a Construction Completion Certificate.

#### **A.11 PERMITS AND LICENSES**

The Developer shall be responsible for obtaining all permits and licenses in compliance with the Provincial and Federal statutory requirements.

