

**TOWN OF COCHRANE
BYLAW NO. 13/2005**

Being a bylaw of the town of Cochrane, in the Province of Alberta to regulate and control surface drainage within the town of Cochrane

WHEREAS the Town of Cochrane wishes to carry out its powers and duties under the *Municipal Government Act*, RSA 2000 c.M-26, as amended with respect to controlling surface drainage within the Town of Cochrane:

NOW THEREFORE THE MUNICIPAL COUNCIL OF THE TOWN OF COCHRANE, IN THE PROVINCE OF ALBERTA, DULY ASSEMBLED, HEREBY ENACTS AS FOLLOWS:

1. TITLE

- 1.1 This bylaw may be cited as the Town of Cochrane “Surface Drainage Bylaw”.
- 1.2 The Surface Drainage Bylaw controls surface drainage on private and public lands within in the Town.

2. DEFINITIONS

- 2.1 In this Bylaw, unless the context otherwise requires:
 - (a) “Act” means the Municipal Government Act, RSA 2000, c.M-26 as amended;
 - (b) “Building Grade Form” means a document prepared and stamped by a Professional Engineer by or on behalf of an Owner that discloses the final building grades for a lot, based upon a Building Grade Plan;
 - (c) “Building Grade Plan” means a plan prepared and stamped by a Professional Engineer on behalf of an Owner of land and accepted by the Town Engineer that shows the final grades for a lot or lots;
 - (d) “Bylaw Enforcement Officer” means a Bylaw Enforcement Officer appointed by the Council pursuant to the Act and includes a member of the Royal Canadian Mounted Police and a Special Constable;
 - (e) “Council” means the Town Council;
 - (f) “Detached Dwelling” means a building which contains only one Dwelling Unit;
 - (g) “Drainage Easement” means a document registered against the title to a lot or lots that restricts the rights of use and development thereof in order to provide for the orderly drainage of surface water there from;
 - (h) “Drainage and Site Servicing Plan” means a plan that complies with Chapter 4 of the City of Calgary Storm Water Management and Design Manual and the City of Calgary Design Guidelines for Development Permits, Mechanical Site Plans and Solid Waste Service Plans;

- (i) “Dwelling Unit” means two or more rooms used or designed to be used as a residence by one or more persons containing kitchen, living, sleeping and sanitary facilities;
- (j) “Environmentally Sensitive Area” means a part of the physical environment that would or could be damaged by a flow or accumulation of water;
- (k) “Erosion Prevention Device” includes silt fencing, straw bales, berming, rip rap, check dams, sediment traps or any other device or structure designed or intended to prevent erosion of the soil and approved for that purpose by the Town Engineer;
- (l) “Fee Schedule” means the fee schedule approved by the Council annually for Planning and Engineering Services;
- (m) “Final Grading” means finished landscaping, contouring or shaping of the surface of a lot or portion thereof by or on behalf of the owner in accordance with a Building Grade Form;
- (n) “Hazardous Substance” means a substance or mixture of substances other, than a pesticide, that exhibits characteristics of flammability, corrosivity, reactivity or toxicity, including without limitation any substance that is designated as a hazardous substance by regulations passed under the *Environmental Protection and Enhancement Act*;
- (o) “Land Use Bylaw” means Bylaw No. 1/99 passed by the Council pursuant to Part 17 of the Act, as amended or replaced from time to time;
- (p) “Lot” means a parcel of land or portion thereof;
- (q) “Owner” means the registered owner of a lot or lots or any other person who is in lawful possession or occupancy thereof;
- (r) “Plan of Certification of As-built Grades” means a plan that confirms compliance with the requirements of a Building Grade Plan, a Drainage and Site Servicing Plan or a Building Grade Form, duly signed and certified by a registered Alberta Land Surveyor or a Professional Engineer as accurately representing surface elevations and surface grades of a Lot;
- (s) “Professional Engineer” means a member in good standing of the Association of Professional Engineers, Geologists and Geophysicists of Alberta;
- (t) “Rough Grading” means the shaping or contouring of a lot or part thereof by or on behalf of the owner in accordance with a Building Grade Form prior to the inspection and approval of Final Grading;
- (u) “Semi-Detached Dwelling” means a building designed and built to accommodate two side-by-side dwelling units separated by a common wall;
- (v) “Slope” means any inclined portion of the ground surface, including but not limited to the edge or side of an embankment, ravine, hill, river, stream, Surface Drainage Feature or soil retaining structure;
- (w) “Storm Water” means the surface runoff water that is the result of natural precipitation;

- (x) “Surface Drainage Feature” means any feature or features intended to control the drainage of Storm Water including, without restricting the generality of the foregoing, a grass or concrete swale, the sloping and contouring of land to facilitate the drainage or control of Storm Water, a drainage control fence or structure or a concrete or asphalt gutter;
- (y) “Town Engineer” means the person employed by the Town from time to time as the Town’s Subdivision and Development Engineer.

2.2 Words and phrases used in this Bylaw but not defined herein have the meaning given to them by Part 17 of the Act, and if not defined therein have the meaning given to them by the third edition of Webster’s International Dictionary unless the context requires that such words and phrases be given an different meaning.

3. DRAINAGE AND SITE SERVICING PLANS, BUILDING GRADE FORMS AND FEE PAYMENT REQUIREMENTS

3.1 Prior to making application for a building permit for the construction, reconstruction, relocation of or addition to a building, the owner of the Lot upon which the building is or is to be located shall submit to the Town Engineer or designate:

- (a) a Building Grade Form for the Lot where the building is a Detached or Semi-detached Dwelling; or
- (b) a Drainage and Site Servicing Plan for the Lot where the building is not a Detached or Semi-detached Dwelling or where a Building Grade Plan covering the Lot was never submitted to the Town.

3.2 The person applying for approval of a Drainage and Site Servicing Plan shall ensure that the Lot referred to in such plan has been brought into compliance with the requirements of the Drainage and Site Servicing Plan within six months after such plan has been approved.

3.3 Lots not serviced by public sanitary sewerage systems are subject only to the requirements of the Alberta Building Code 1997 as amended, and Parts 6, 7 and 8 of this Bylaw.

4. STORM WATER MANAGEMENT AND DISCHARGE CONTROL REQUIREMENTS

4.1 The Town Engineer may establish a Rate of Release of Storm Water for a Lot which may limit or control either or both:

- (a) discharges of Storm Water into a public storm sewer; and
- (b) discharges of Storm Water to a Surface Drainage Feature.

4.2 The Town Engineer may determine and specify the location or locations of release of Storm Water and subsurface drainage on or from a Lot, including, but not limited to requiring that Storm Water drainage and subsurface drainage from a building be discharged into a storm sewer service pipe, or to a designated point.

4.3 Where a Rate of Release of Storm Water has been established pursuant to Section 4.1:

- (a) the Town Engineer may refuse to accept a Drainage and Site Servicing Plan or Building Grade Form if the Drainage and Site Servicing Plan or Building Grade Form does not comply with the Rate of Release of Storm Water, and
 - (b) the Owner shall maintain all Surface Drainage Features and Storm Water storage areas shown on the approved Drainage and Site Servicing Plan.
- 4.4 Where the Town Engineer has specified a location for the release of Storm Water or subsurface drainage on or from a Lot pursuant to section 4.2:
- (a) the Town Engineer may refuse to accept a Drainage and Site Servicing Plan or Building Grade Form until the Owner has made provision on the Drainage and Site Servicing Plan or Building Grade Form for the release of water at the location specified by the Town Engineer; and
 - (b) the Owner shall at all times comply with the specified location or locations for release of Storm Water or subsurface drainage as established by the Town Engineer.

5. ESTABLISHMENT, INSPECTION AND MAINTENANCE OF DRAINAGE REQUIREMENTS

- 5.1 The Town Engineer may accept confirmation of the surface elevations and surface grades of a Lot in two stages:
- (a) Stage 1: Approval of Rough Grading; and
 - (b) Stage 2: Approval of Final Grading.
- 5.2 Rough Grading and Final Grading of a Lot shall conform to the Building Grade Form or the Drainage and Site Servicing Plan for the Lot.
- 5.3 Within 60 days of completion of Rough Grading or Final Grading, as the case may be, the Owner shall submit to the Town Engineer a Plan of Certification of As-Built Grades relating to the Rough Grading or the Final Grading.
- 5.4 Subject to any obligations it may have under the Safety Codes Act, the Council may from time to time, taking into account social and economic factors, including the resources available to it and the various demands made upon those resources by the residents of the Town, make operational or policy decisions respecting the level of allocation of resources which may affect operational performance in regard to the frequency of and extent to which inspections are made under this Bylaw.
- 5.5 The Town relies entirely on the Drainage and Site Servicing Plan, Building Grade Form and Plan of Certification of As-Built Grades supplied by or on behalf of the Owner in respect to a Lot's compliance with the requirements of this Bylaw.
- 5.6 The Town assumes no responsibility or liability for any inaccuracy, mistake or error of law or fact arising from a Drainage and Site Servicing Plan, a Building Grade Form or Plan of Certification of As-Built Grades supplied by or on behalf of the Owner.

6. RESTRICTIONS AFFECTING SURFACE DRAINAGE

- 6.1 If a Sump Pump is required in any building the Owner shall install at the time of construction, a Sump Pump Discharge as part of the building's foundation drain so as to allow discharge directly to the storm sewer, or discharge to the surface.
- 6.2 The Sump Pump Discharge shall comply with all Town Bylaws, and other applicable legislation and regulations. The Owner shall be solely responsible for ensuring the Sump Pump Discharge is properly designed, installed, operated and maintained.
- 6.3 No person shall suffer or permit roof drainage or pumped subsurface drainage from a building to be discharged:
- (a) directly onto a permeable ground surface within one meter of a Building for all Buildings that have a basement or a level below the finished ground surface;
 - (b) directly onto an adjacent Lot, or a Town right-of-way;
 - (c) to a location where soil erosion will or could occur;
 - (d) to a location where the flow of water or accumulation of water would adversely affect or have potential to adversely affect the stability of an adjacent or neighbouring Slope;
 - (e) to a location where the flow of water or accumulation of water would or could adversely affect a slope or an Environmentally Sensitive Area; or
 - (f) in such a way as that it would or could create a nuisance, hazard or damage to neighbouring public or private property.
- 6.4 No Person shall alter or maintain, suffer or permit, alterations to the Rough or Final Grading of any Lot as shown on the Plan of Certification of As-Built Grades relating to the Rough Grading or the Final Grading.
- 6.5 No Person, except employees or agents of the Town, or other persons with the specific authorization of the Town, shall alter or maintain alterations of the surface elevations or surface grades within Town lands.
- 6.6 No Person, except employees or agents of the Town, or other persons with the specific authorization of the Town, shall obstruct, remove, regrade or alter or maintain, suffer or permit any such obstruction, removal, regrading or alterations of a Surface Drainage Feature within a registered right-of-way or Drainage Easement.
- 6.7 The Town shall not be held liable for any damages caused by a contravention of Part 6 of this Bylaw.
- 6.8 No Person, except employees or agents of the Town, or other persons with specific authorization of the Town, shall install a culvert or driveway within a public right-of-way.
- 6.9 The Owner of a Lot shall at all times comply with the terms and conditions of any easement agreement, utility right-of-way, caveat or restrictive covenant document related to drainage that has been registered against the title to the Lot.

- 6.10 The Owner of a Lot is responsible for all maintenance of Surface Drainage Features located on the Lot unless otherwise notified by the Town Engineer.
- 6.11 The Owner of a Lot is responsible for erecting and maintaining any Erosion Prevention Device that may be required to protect the Lot or neighbouring Lots from damage due to erosion.
- 6.12 The Owner of a Lot shall ensure that any Storm Water exiting the Lot is free of hazardous contaminants.
- 6.13 No person shall discharge or suffer or permit the discharge of any substance other than Storm Water directly into the Town's storm sewer system without written approval from the Town Engineer.

7. ENFORCEMENT

- 7.1 Where a Bylaw Enforcement Officer believes that a person has contravened any provision of this Bylaw, he may commence proceedings by issuing a summons by means of a violation ticket in accordance with Part 2 of the *Provincial Offences Procedure Act*, RSA 2000, c. P-34.
- 7.2 The specified penalty payable in respect of a contravention of a provision of this Bylaw is the amount shown in Schedule "A" of this Bylaw in respect of that provision.
- 7.3 Notwithstanding Section 7.2:
- (a) where any person contravenes the same provision of this Bylaw twice within one twelve (12) month period, the specified penalty payable in respect of the second contravention is double the amount shown in Schedule "A" of this Bylaw in respect of that provision; and
 - (b) where any person contravenes the same provision of this Bylaw three or more times within one twelve (12) month period, the specified penalty payable in respect of the third or subsequent contravention is triple the amount shown in Schedule "A" of this Bylaw in respect of that provision.
- 7.4 Any person who contravenes any provision of this Bylaw is guilty of an offence and is liable on summary conviction to a fine of not more than Two Thousand Five Hundred (\$2,500.00) Dollars and in default of payment is liable to imprisonment for a term not exceeding six (6) months.
- 7.5 The levying and payment of any fine or the imprisonment for any period provided in this Bylaw shall not relieve a person from the necessity of payment of any fees, charges or costs for which he is liable under the provisions of this Bylaw.
- 7.6 The Town is not required to enforce this Bylaw. In deciding whether or not to enforce this Bylaw, the Town may take into account policy considerations, including available municipal budget and personnel resources.

8. MISCELLANEOUS PROVISIONS

- 8.1 Where no time limit is specified in this Bylaw for completing any activity or work required by this Bylaw, the person responsible to perform the same shall complete the required activity or work within 60 days of notice thereof from the Town Engineer.

- 8.2 Where a time limit has been specified in this Bylaw or specified by the Town Engineer for any activity or work required by this Bylaw, the time limit may be extended by the Town Engineer.
- 8.3 No person shall supply false information or make inaccurate or untrue statements in a document or in information supplied to the Town Engineer pursuant to this Bylaw.

9. EFFECTIVE DATE

- 9.1 This Bylaw comes into effect upon the final passing and proper signature thereof.

Read a first time June 13th, 2005

Read a second time June 13th, 2005

Read a third time by unanimous consent June 13th, 2005

Mayor

Municipal Clerk

Schedule "A"

Schedule of Penalty Amounts

Offense	Section	First
Failure to submit a Surface Drainage Plan for the Town's Approval	3.1(a)1 & 3.1(b)	\$300
Failure to Comply with rate of release established by the Town	4.3(b)	\$500
Failure to comply with location of release specified by the Town	4.4(b)	\$500
Failure to establish or maintain Surface Grades in conformance with Approved Surface Drainage Plan	5.2	\$300
Failure to comply with requirements of Approved Surface Drainage Plan	5.3	\$300
Failure to apply for an Approval of Final Grading	5.2 & 5.3	\$300
Failure to submit a Plan of Certification of As-Built Grades	5.3	\$300
Hinder or prevent Site Grading Inspector from accessing site	5.4	\$300
Failure to establish or maintain adequate Surface grades adjacent to a Building	6.3(a)	\$300
Discharge of roof or foundation drainage directly onto an adjacent property or Town Right-of-Way	6.3(b)	\$500
Discharge of roof or foundation drainage that causes soil erosion	6.3(c)	\$500
Discharge of roof or foundation drainage that adversely affects the stability of an adjacent slope	6.3(d)	\$500
Discharge of roof or foundation drainage that detrimentally affect a slope or environmentally sensitive area	6.3(e)	\$500
Discharge of roof or foundation drainage that causes a nuisance, hazard or damage	6.3(f)	\$500
Surface Elevation or Surface Grades alteration that cause a nuisance , hazard or damage	6.4	\$500
Surface Elevation or Surface Grades alteration that adversely affect the stability of an adjacent Slope	6.4	\$500
Unauthorized Surface Elevation or Surface Grade alterations within a Town Right-of-Way	6.5	\$500
Obstruct, remove, regrade, or alter a drainage Swale or other drainage feature or facility	6.6	\$500
Culvert installation without obtaining written permission	6.8	\$500
Non Compliance with terms of an easement document, utility right-of-way document, caveat or restrictive covenant.	6.9	\$500

Schedule B
Town of Cochrane Accepted Lot Grading Tolerances

The following tolerances and minimum grades apply to the construction of single detached and duplex dwellings, Multi-family Housing Developments, and construction on Commercial and Industrial Sites.			
ITEM	ACCEPTABLE GRADE TOLERANCES BETWEEN GRADE SLIP AND AS-BUILT	OVER-RIDING MINIMUM GRADES	OTHER
TOP OF FOOTING VERIFICATION	+/- 0.15 meters (6 inches)	Top of footing must be not be lower than the recommended lowest top of footing per grade slip	If house or building constructed with minimum entrance grade below Minimum Grade (MG) or Registered Minimum Grade (RMG) specified, 0.08 meters (3.15 inches) maximum tolerance
AS CONSTRUCTED GRADES AT PROPERTY LINE	+/- 0.10 meters (4 inches)		Match established grades or town infrastructure
AS CONSTRUCTED GRADES WITHIN LOT	+/- 0.15 meters (6 inches)	2% grade	Maximum grade ratio of 3:1 without a retaining wall
AREAS WITHIN SIDEYARD		5% grade perpendicular to property line	
CONCRETE DRIVEWAYS, SIDEWALKS AND PATIOS		2% grade from garage entrance or house or building foundation wall	
MULTI-FAMILY HOUSING DEVELOPMENTS AND COMMERCIAL AND INDUSTRIAL SITES			Trap-low areas must meet or exceed volume capacity set out in Storm Water Management Report (Drainage Plan)