

	<h1>TOWN OF COCHRANE POLICY</h1>
Policy No.: Policy Title: Approval Date: Revision Date: Department:	2102-02 Bow Ridge Gabion Walls February 28, 2010 October 13, 2015 Office of the Chief Administrative Officer

Policy Statement

It is the intent of this policy to provide a course of action to be followed by the Town respecting the movement of gabion walls in the Bow Ridge subdivision and maintenance and repair of the concrete swale on the top of the gabion walls.

1. Reason for Policy

- 1.1 The Bow Ridge Subdivision was constructed in or about 1999-2000. The design plans and specifications provided for the construction of gabion walls and which were prepared by the Developer's engineer and stamped with an engineer's stamp. The gabion walls were constructed solely upon private lands which, upon sale of the individual lots, passed to each individual lot owner as part of the owners respective title together with all encumbrances registered against the lands. A concrete drainage swale was constructed on the top of portions of the gabion walls which was intended to collect and carry storm water from the individual properties to the Town's storm water collection system. The concrete swale, upon completion of subdivision construction, was turned over to the Town by the Developer as Town infrastructure. A Restrictive Covenant was entered into by 641269 Alberta Ltd and 593267 Alberta Ltd., as Grantors, and the Town, which provided for an easement and right of way respecting the concrete swale constructed on the top of the gabion walls. Subsequent owners of lots in the subdivision are bound by the Restrictive Covenant which provides, in part, that the owners are responsible for the maintenance and repair of the swale. In or about 2003, after heavy rainfall, it was observed and determined that there was movement in a portion of the gabion wall. That portion of the gabion wall was repaired. In the spring of 2009 there was noted movement of the gabion wall at sites other than the repair site of 2003-2004. Stantec Consulting Ltd. (Stantec) was retained to conduct a Geotechnical Investigation of the gabion walls and report to the

Town. After investigation Stantec reported, in summary, that the design of the gabion walls was inadequate and that the fill material contributed to wall movement. Stantec recommended that the gabion walls be removed entirely and reconstructed using alternate wall system. The estimated cost of replacement could be as high as six to eight million dollars. The estimated cost of replacement of the gabion walls is beyond the Town's financial ability to pay.

- 1.2 The Town's insurers were informed of the movement in the gabion walls. The insurer's adjuster reviewed documents and inspected the wall. The insurer subsequently advised that it was of the opinion that the Town was not liable for the movement of the gabion walls.
- 1.3 The Town is not responsible for the repair or replacement of the gabion walls as the gabion walls are wholly constructed on private property. The walls are the responsibility of each individual owner. In addition, the Restrictive Covenant respecting overland drainage, in particular, the concrete swale running along the top of the gabion walls, requires the property owners to maintain and repair the swale.
- 1.4 Town of Cochrane Bylaw No. 13/2005 and amendments thereto, also known as the "Surface Drainage Bylaw", imposes restrictions on persons respecting surface drainage such that surface drainage shall not be altered from the original approved surface drainage plans and specifications.
- 1.5 Town of Cochrane continues to secure services related to the provision of monthly monitoring and reporting of instrumentations results.
- 1.6 Town Administration has met with legal counsel to identify issues and develop strategies for dealing with the issues respecting movement of the gabion walls taking into consideration:
 - 1.6.1 that the gabion walls are located on private property;
 - 1.6.2 the Stantec reports and recommendations;
 - 1.6.3 the cost of replacement and, or, repair of the gabion walls;
 - 1.6.4 the Town's limited financial resources;
 - 1.6.5 the danger presented by the gabion walls to public safety or property;
 - 1.6.6 the property owners are responsible for the maintenance and repair of the gabion wall located on their property;

- 1.6.7 the property owners are responsible for the maintenance and repair of the concrete swale on top of the gabion walls pursuant to the restrictive covenant;
 - 1.6.8 the Town of Cochrane Bylaw No. 13/2005 "Surface Drainage Bylaw"
 - 1.6.9 the Town's authority pursuant to the Municipal Government Act to require property owners to remedy dangers to public safety or property;
 - 1.6.10 the Town's authority pursuant to the Municipal Government Act to require persons to remedy any contravention of the Municipal Government Act or any other enactment that the Town is authorized to enforce or a bylaw; and
 - 1.6.11 the Town's authority pursuant to the Municipal Government Act to take whatever actions or measures are necessary to eliminate dangers to public safety or property or remedy any contravention of the Municipal Government Act or any other enactment that the Town is authorized to enforce or a bylaw.
- 1.7 The reason for this Policy is:
- 1.7.1 to provide for ongoing monitoring of the gabion walls in the Bow Ridge Phase 3 subdivision;
 - 1.7.2 to inspect the subject properties and ensure compliance pursuant to the Town's Surface Drainage Bylaw in relation to the gabion walls in the Bow Ridge Phase 3 subdivision;
 - 1.7.3 to inspect the subject properties and ensure compliance with the Overland Drainage Easement and Restrictive Covenant in relation to the gabion walls in the Bow Ridge Phase 3 subdivision
 - 1.7.4 to mitigate, if possible, through monitoring, inspection and enforcement, further movement of the gabion walls in the Bow Ridge Phase 3 subdivision;
 - 1.7.5 to provide to affected property owners in the Bow Ridge Phase 3 subdivision the results of ongoing monitoring, inspection and any recommendations; and

- 1.7.6 to address any dangers to the public safety and property as a result of the movement of the gabion walls in the Bow Ridge Phase 3 subdivision.

2. Related Information

- 2.1 Municipal Government Act, R.S.A. 2000, c. M-26
Sections: 541, 542, 543, 545, 546, 546.1, 547, 548, 549, 550, 551, 552, 553, 553.1, 553.2, 554, 554.
- 2.2 Town of Cochrane Bylaw No. 13/2005, "Surface Drainage Bylaw".
- 2.3 Overland Drainage Easement and Restrictive Covenant.

3. Responsibilities

- 3.1 Town Council to:
 - 3.1.1 Approve by resolution this policy and any amendments.
 - 3.1.2 Consider the allocation of resources for successful implementation of this policy in the annual budget process.
- 3.2 Chief Administrative Officer to:
 - 3.2.1 Implement this policy and approve procedures.
 - 3.2.2 Ensure policy and procedure reviews occur and verify the implementation of policies and procedures.
- 3.3 All Employees to:
 - 3.3.1 Understand and adhere to this policy and procedure.

4. Exclusions

- 4.1 None

5. Special Situations

- 5.1 In the event of an emergency respecting an imminent failure of a gabion wall and resulting danger to public safety or property, the Town may, without notice to the property owner, take whatever actions or measures necessary to eliminate the emergency.

6. Appendices

- 6.1 Strategies 1, 2(a) and 2(b), Appendix "A"

- 6.2 Stantec, Geotechnical Investigation, Bow Ridge Subdivision Phase 3, April 6, 2010, Appendix "B";
- 6.3 Stantec, Letter to Town of Cochrane, May 27, 2010, Appendix "C";
- 6.4 Stantec, Letter to Town of Cochrane, September 1, 2010, regarding 12 Bow Ridge Close, Appendix "D".

7. End of Policy

	<h1>Town of Cochrane Procedure</h1>
Policy No.: Policy Title: Department:	2102-02 Bow Ridge Gabion Walls Office of the Chief Administrator

1. Bow Ridge Gabion Wall Strategies

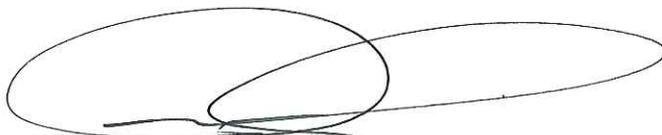
- 1.1 Strategies 1, 2(a) and 2(b) will be followed by Administration in dealing with the Bow Ridge Gabion Walls.

2. Appendix

- 2.1 Strategies 1, 2(a) and 2(b)

3. End of Procedure

Approval

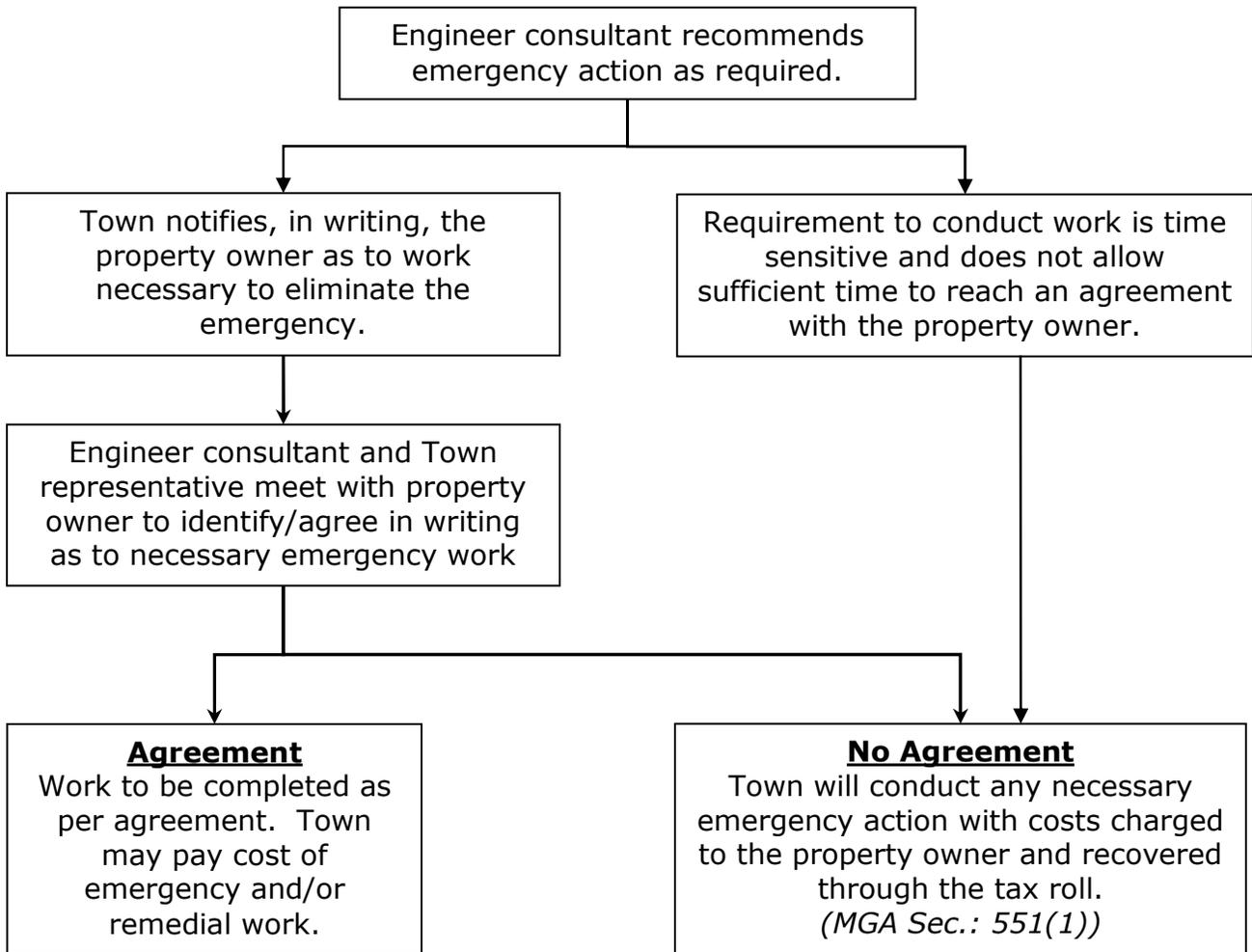


Julian deCocq, C.A.O.

OCTOBER 19, 2015
Date

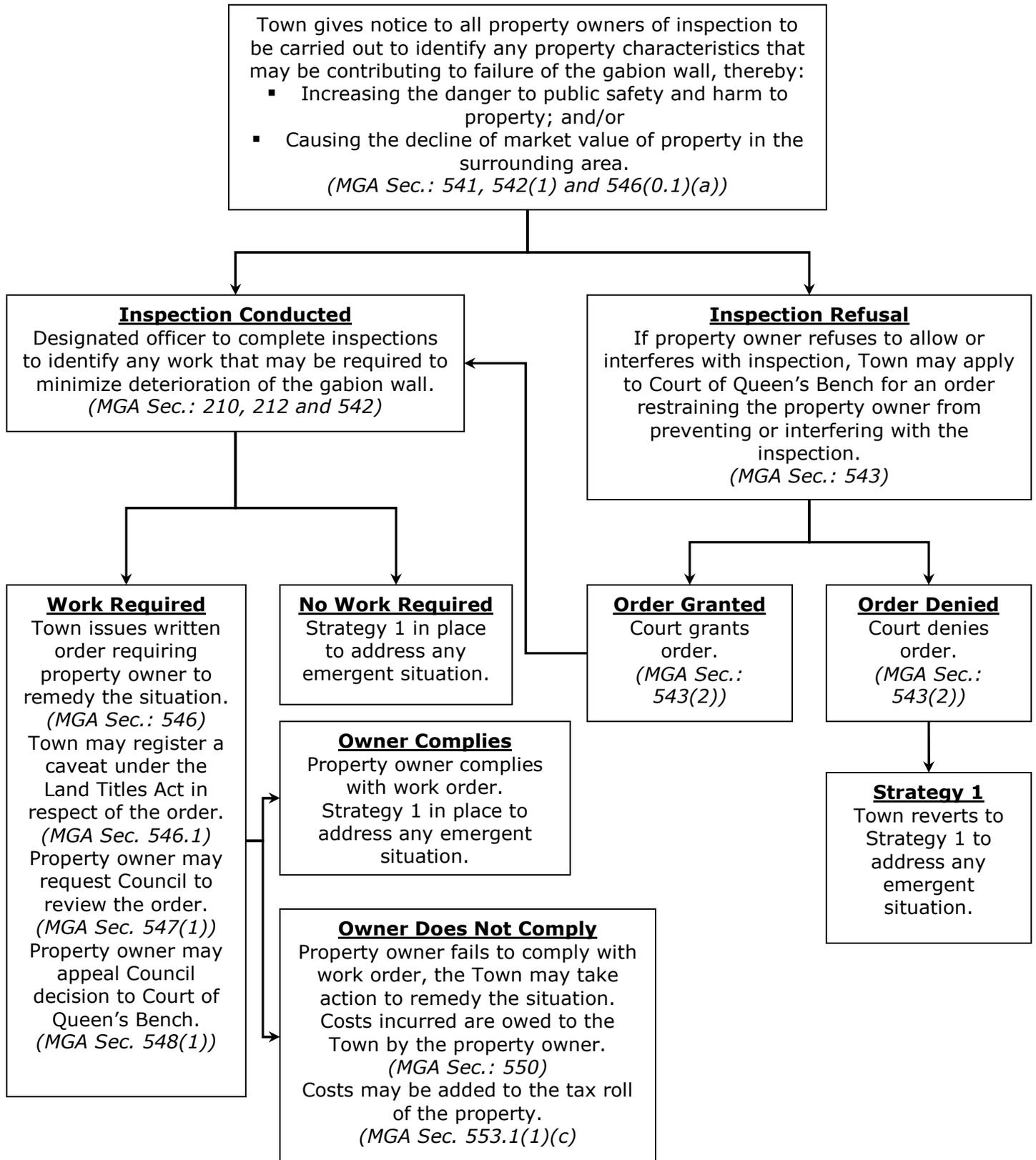
Strategy 1

Emergent situation when work is required.



Strategy 2(a)

Inspection and remedial work for properties with the gabion wall.



Strategy 2(b)

Inspection and remedial work for properties adjacent to properties with the gabion wall.

