



DEVELOPMENT AND INFRASTRUCTURE SERVICES – ENGINEERING SERVICES
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October 10th, 2016

**DEVELOPMENT AND INFRASTRUCTURE SERVICES INFORMATION REPORT
ENGINEERING SERVICES 2016-44**

TO: Committee of the Whole
SUBJECT: Site Alteration Bylaw to repeal current Cut Fill Bylaw 1998-110
ORIGIN: Director, Engineering Services

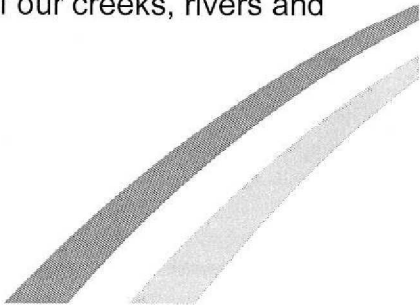
RECOMMENDATIONS

THAT Development and Infrastructure Services Report – Engineering Services 2016-44 dated October 10, 2016 entitled “Site Alteration Bylaw” be received and the following recommendations be adopted:

- 1. THAT the Site Alteration Bylaw be adopted by Council;**
- 2. AND THAT the current Cut Fill Bylaw 1998-110 be hereby repealed;**
- 3. AND THAT the application fee under the Site Alteration Bylaw be increased to \$250.00 (from \$189.23) for “Owner Occupied Residential” applications, and to \$500.00 (from \$378.40) for “All Other Property Types”;**
- 4. AND THAT the Fees and Charges Bylaw be updated to reflect the change in fees.**

BACKGROUND / COMMENTS

As towns and cities grow, changes to the landscape occur from residential, institutional, commercial and industrial developments. These changes include the removal of vegetation, alterations to grading and drainage patterns and the rise in hard surface areas. As a result, there is a marked increase in stormwater runoff, erosion of lands and sedimentation into waterways, which is of great concern in terms of flooding and the deteriorating health of our creeks, rivers and lakes, including Lake Simcoe.



In Newmarket, site plan and subdivision agreements and the current Cut Fill Bylaw 1998-110 have been regulating the placing and dumping of fill in the Town of Newmarket. However, these mechanisms have been identified as lacking in several key areas.

The goal of adopting the new Site Alteration Bylaw is to prohibit or regulate the placing or dumping of fill, the removal of soil and the alteration of the grade of lands within the Town of Newmarket, and to establish regulatory requirements for land development and land disturbing activities.

These changes aim to minimize the threats to public health, safety, public and private property, and natural resources from construction site erosion and post-construction stormwater runoff. The new bylaw will do this by addressing the gaps in our current bylaw and will provide clear direction on how sites are to be altered in Newmarket. This includes:

1. Specifying requirements for erosion and sediment control (E&SC) protection during development;
2. Outlining how stormwater should be managed in the municipality;
3. Providing clear direction on Town enforcement powers, such as issuing stop work orders, and penalties if there is a lack of compliance;
4. Preventing any negative impacts from development to adjacent properties by ensuring the implementation of best management practices;
5. Regulating the source and quality of fill materials;
6. Providing explicit requirements for site alteration permits, site plan and subdivision applications;
7. Ensuring that the Town adheres to the new, more stringent regulations of the Lake Simcoe Protection Plan.

Application fees are being increased as a result of increased responsibility to the Town in reviewing or having its consultants review applications, in monitoring the work to ensure compliance, and in applying orders and fines if required.

All Site Alteration activities within the Town limits will be governed by the bylaw regardless of property size, unless they are otherwise exempt as indicated in the bylaw. Property size only determines whether the Site requires a permit. The Director of Engineering Services will ultimately be responsible for issuing site alteration permits and may impose additional requirements where deemed necessary.

The implementation of this bylaw will assist the Town in achieving the objectives of the Lake Simcoe Protection Plan, including policies related to the management of stormwater and phosphorus reduction.

BUSINESS PLAN AND STRATEGIC PLAN LINKAGES

- Living Well...by providing improved stormwater management and protecting our natural environment.
- Well Respected... by balancing the needs and priorities of all stakeholders.

CONSULTATION

Internal:

Various departments have been involved in reviewing the draft bylaw and ensuring a consistent and comprehensive document. This has included: Finance, Public Works Services, Engineering Services, Planning, Legal, and Legislative Services.

External:

Members of Newmarket's Environmental Advisory Committee received a copy of the draft bylaw for review and comment on September 8, 2016. No comments or questions were received. Another major external consultation, which started in 2014, was through the Lake Simcoe Region Conservation Authority (LSRCA). The LSRCA created several working groups to create a model bylaw for municipalities to employ. One such group is the Stormwater Management Technical Working Group, of which Newmarket is an active member. This group represents a forum where provincial, municipal and regional regulators who oversee stormwater management and E&SC practices can work together to develop harmonized approaches for watershed management. The working group also included consultants, technical professionals representing the building industry, suppliers, developers, university faculty members and others involved in the sector to help develop the model bylaw for municipalities, to share best management practices and present new technology. The meetings were well attended and they allowed the LSRCA to develop and release a "Draft Lake Simcoe Watershed Model Bylaw for Municipalities", which aimed to standardize stormwater management and E&SC throughout the municipalities in the watershed. The municipalities were then to adapt the model bylaw to fit their municipality's needs. The proposed Site Alteration Bylaw 2016-44 is based heavily on this model bylaw.

HUMAN RESOURCE CONSIDERATIONS

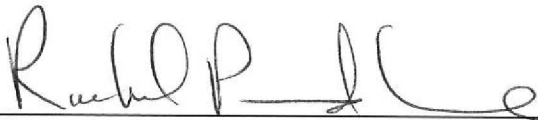
There will be an impact on current staff who will need to spend more time reviewing applications and monitoring work being done under the new bylaw. Consideration should be made for dedicated inspection resources in the future. This need will be evaluated during the coming year. Staff and Town consultants would be required to be familiar with the requirements outlined in the bylaw.

BUDGET IMPACT

There is no current impact on Capital or Operating budgets.

CONTACT

For more information on this report, please contact: Jen Slykhuis, M.Sc., Senior Environmental Coordinator – Climate Change Adaptation, by phone at 905-953-5300, press “2”, then extension 2506; or via e-mail at jslykhuis@newmarket.ca.



Rachel Prudhomme, M.Sc., P.Eng.
Director, Engineering Services



Peter Noehammer, P.Eng.,
Commissioner, Development and Infrastructure Services



CORPORATION OF THE TOWN OF NEWMARKET

BY-LAW NUMBER 2016-XX

A BY-LAW TO PROHIBIT OR REGULATE THE PLACING OR DUMPING OF FILL, THE REMOVAL OF TOPSOIL AND THE ALTERATION OF THE GRADE OF LANDS WITHIN THE TOWN OF NEWMARKET

WHEREAS Section 142 of the Municipal Act, 2001, S.O. 2001, c. 25, as amended, ("Municipal Act) permits the enactment of a by-law by the Council of The Corporation of the Town of Newmarket to prohibit or regulate the placing or dumping of fill, the removal of topsoil, and the alteration of the grade of land in the Town of Newmarket;

AND WHEREAS Section 142 of the Municipal Act, 2001 as amended further authorizes local municipalities to require that a permit be obtained for the placing or dumping of fill, the removal of topsoil and the alteration of the grade of land, and to impose conditions to such permits;

AND WHEREAS Section 11(2) of the Municipal Act, as amended, authorizes municipalities to pass by-laws respecting the economic, social and environmental well-being of the municipality;

AND WHEREAS Section 398 of the Municipal Act, authorizes a municipality to add fees and charges to the tax roll for a property and collect them in the same manner as municipal taxes;

AND WHEREAS Section 444 of the Municipal Act, authorizes that the municipality may make an order requiring the person who contravened the by-law or who caused or permitted the contravention or the owner or occupier of the land on which the contravention occurred to discontinue the contravening activity;

AND WHEREAS Section 445 of the Municipal Act, authorizes that where the municipality is satisfied that a contravention of the by-law has occurred, the municipality may make an order requiring the person who contravened the by-law or who caused or permitted the contravention or the owner or occupier of the land on which the contravention occurred to do work to correct the contravention;

AND WHEREAS Section 446 of the Municipal Act, authorizes a municipality to direct or require a person to do a matter or thing, the municipality may also provide that, in default of it being done by the person directed or required to do it, the matter or thing shall be done at the person's expense;

AND WHEREAS the Council may require that a permit be obtained for the placing or dumping of fill, the removal of topsoil, and the alteration of the grade of land in the Town of Newmarket and prescribe the fees for the permit and the circumstances under which a permit may be issued and the conditions to such a permit;

THEREFORE BE IT ENACTED by the Municipal Council of the Corporation of the Town of Newmarket as follows:

DEFINITIONS

In this By-law:

“Adjacent” means abutting or contiguous to;

“Agricultural Lands” includes all lands that are cultivated and/or used for the raising of livestock;

“Agricultural Uses” means:

- a) Growing crops, including nursery and horticultural crops;
- b) Raising livestock and other animals, including poultry and fish, for food and fur;
- c) Aquaculture; and
- d) Agro-forestry and syrup production.

“Applicant” means the Owner of the Site, where such Owner is an individual, or means any Person, authorized in writing by the Owner, to apply for a Permit on the Owner’s behalf;

“Application” means an application for a Site Alteration Permit in the form prescribed by the Director;

“Area of Natural and Scientific Interest (ANSI)” means an area that has been:

- e) Identified as having earth science/life science values related to protection, scientific study or education; and
- f) Further identified by the Ministry of Natural Resources and Forestry (MNRF) as such using evaluation procedures established by the Ministry, as they may be amended from time to time;

“Authorized Agent” means a Person acting on behalf of the Owner as designated on the application;

“Best Management Practices” means applicable erosion and sediment control measures identified in an Erosion and Sediment Control Plan, which are used to mitigate the amount of pollution leaving a site. May include silt fence barrier, turbidity barrier, vehicle tracking pad (mud mat), rock check dam, sediment pond, and can be used singularly or in combination as a multi-barrier approach.

“Body of Water” includes any body of flowing or standing water whether naturally or artificially created;

“Clerk” means the Clerk of the Town;

“Continuous Offence” means an uninterrupted offence of the By-law;

“Council” means the Council of the Corporation;

“Director” means the Director of the Engineering Department of the Town or designate;

“Development” means the construction of buildings or structures and above or underground services such as roads, parking lots, paved storage areas, water mains,

storm and sanitary sewers, general grading works and similar facilities on any Site in the Town of Newmarket

"Drainage" means the movement of water to a Body of Water, whether by way of natural characteristics of the ground surface or by an artificial method;

"Dumped/Dumping" means the depositing of imported Fill in a location on the Site or the movement and depositing of Fill from one location on a Site to another location on the same Site;

"Endangered Species" means any native species, that is at risk of extinction throughout all or part of its Ontario range if the limiting factors are not reversed, as listed in the regulations under the Endangered Species Act, 2007, S.O. 2007, c.6 or its successor, as be amended;

"Enforcement Officer" means a Person authorized by the Town to carry out observations and inspections and take samples as prescribed by this By-law and has been duly appointed by the Town to enforce this By-law. It shall also include Persons duly appointed as Municipal Law Enforcement Officers by the Town for the purposes of legal action;

"Environmental Protection Areas" as defined by the Town's Official Plan as it may be amended from time to time;

"Environmentally Sensitive Area" means environmentally sensitive lands or other designation for similar purposes that is compatible with the conservation of biodiversity, ecological features, and functions of the site as designated in the applicable municipal, regional, provincial and federal Plans, Acts statutes and regulations;

"Erosion" means the detachment and movement of soil, sediment or rock fragments by water, wind, ice or gravity;

"Existing Grade" means the elevation of the existing ground surface of the Site upon which Site Alteration is proposed and of Adjacent ground surface up to three (3) metres wide surrounding such Site, except that where Site Alteration has occurred in contravention of this By-law, Existing Grade shall mean the ground surface of the Site as it existed prior to Site Alteration;

"Fill" means any type of imported or relocated material deposited or placed on the Site and includes soil, stone, concrete, sod or turf either singly or in combination;

"Finished Grade" means the approved elevation of ground surface of the Site upon which Fill has been placed or grade of land has been altered in accordance with this By-law;

"Fish Habitat" means the spawning ground and any other areas including nursery, rearing, food supply and migration areas on which fish depend directly or indirectly in order to carry out the life processes, as defined in the Federal Fisheries Act, R.S.C. 1985, c. F-14, as it may be amended from time to time;

"Habitat of Endangered, Rare and Threatened Species" means land that:

- a) Is an area where individuals of an endangered species, a rare species, or a threatened species lives or has the potential to live and find adequate amounts of food, water, shelter, and space needed to sustain their population, including an area where a species concentrates at a vulnerable

point in its annual or life cycle and an area that is important to a migratory or non-migratory species; and

- b) Has been further identified by the Ministry of Natural Resources and Forestry (MNRF) or by any other Person, as such according to evaluation procedures established by the MNRF, as they may be amended from time to time;

"Land Disturbance" means any man-made change of the land surface including removing vegetative cover, and/or excavating, and/or filling, and/or grading;

"Municipal Act" means the Municipal Act, 2001, S.O. 2001, c.25, or its successor as amended;

"Owner" means the registered Owner of the Site, or a person authorized, in writing, to act as an agent for the registered owner, or a person in lawful control of the Site.

"Permit" means permission or authorization given in writing by the Director to perform work regulated by this By-law or part thereof and shall include all information contained within the approved Site Alteration Plan and any special conditions identified by the Director;

"Permit Holder" means the Owner or the person in possession of and includes a lessee, a mortgagee in possession of a Person in charge of the Site;

"Person" includes any individual, corporation, partnership, company, association, or party and the heirs, executors, administrators, or other legal representatives of such person, to whom the context can apply according to the law;

"Placing" means the distribution of Fill on the Site to establish a Finished Grade higher or lower than Existing Grade;

"Planning Act" means the Planning Act, R.S.O. 1990, c.13, or its successor as amended;

"Ponding" means the accumulation of surface water in the area not having Drainage from where the lack of Drainage is caused by the Placing or Dumping of Fill or altering the grade of land;

"Proposed Grade" means the proposed elevation of ground surface of land upon which Fill is proposed to be placed or altering the grade of land is proposed.

"Previously Developed Site" means a Site that has been altered by paving, construction, and/or land use that would typically have required regulatory permitting to have been initiated (alterations may exist now or in the past);

"Qualified Person" means a person who holds a license, under the Professional Engineers Act, R.S.O. 1990, C.P. 28 as amended, or other, as approved by the Director, which possesses expert or special knowledge in regards to matters contained within this By-law;

"Rare Species" means a native species that is not currently at risk of becoming threatened, but because of its limited distribution, small population, or specialized habitat needs, could be put at risk of becoming threatened through all or part of its Ontario range by changes in land use or increases, in certain types of human activity;

"Removal" means excavation or extraction of any Fill which lowers the Existing Grade, and includes Soil Stripping;

"Retaining Wall" means a concrete or concrete product wall or other material approved by the Director designed to contain and support Fill which has a Finished Grade higher than that of Adjacent lands;

"Security Deposit" means a certified cheque, cash or a financial institution letter of credit for the securities set out in Schedule A of the Bylaw;

"Site" means a property/lot/or a parcel of land described in a deed or other document legally capable of conveying land, or shown as a block on a registered plan of subdivision;

"Site Alteration" means activities such as Removal of Topsoil from the Site, the Placing or Dumping of Fill at the Site, the alteration of the Existing Grade of land at the Site or excavation by any means including, but not limited to the removal of vegetative cover, the compaction of Fill or the creation of impervious surfaces, or any combination of these activities that would change the landform and natural vegetative characteristics of the Site, but does not include:

- a) The construction of facilities for transportation, infrastructure and utility uses by a public body; or
- b) The reconstruction, repair or maintenance of a drain approved under the Drainage Act, R.S.O. 1990, c. D.17, or its successor, as amended; or
- c) The carrying out of Agricultural Uses;

"Site Alteration Area" means the total area of the Site that Site Alteration will occur on;

"Site Alteration Plan" means a plan prepared by a Qualified Person on behalf of an Owner in connection with a Site Alteration Permit pursuant to this By-law and shall include general requirements, Erosion and Sediment Control (ESC) plans and Fill management plans;

"Soil" means any material commonly known as earth, Topsoil, loam, subsoil, clay, sand, or gravel;

"Soil Management Plan" means a plan which includes such information including, but not limited to, the volume of soil required at receiving site, Grading Plan, location/address of source material, number of soil samples collected, number of soil samples analysed, rationale for the selection of chemical parameters, rationale for the selection of site condition standard and results of analyses including a comparison of the results to the applicable site condition standard for each contaminant analysed.

"Soil Stripping" means the Removal of Soil or Topsoil;

"Source Material" means soil used to alter the grade of the land;

"Source Material Site" means property from which source material originates;

"Swale" means a depression in the ground surface sloping for the purpose of conveying surface Drainage;

"Topsoil" means those horizons in a Soil profile, commonly known as the "O" and the "A" horizons, containing organic material and includes deposits of partially decomposed organic matter such as peat;

"Town" means the Corporation of the Town of Newmarket, and including but not limited to, Town of Newmarket employees, Enforcement Officers, Director or designate and appointed individuals for the purpose;

"Threatened Species" means any native species that is at risk of becoming endangered throughout all or part of its Ontario range if the limiting factors are not reversed;

"Valleyland" means a natural area that occurs in a valley or other landform depression that has water flowing through or standing for some period of the year;

"Watercourse" means a natural or man-made channel or Swale in which water flows, either continuously or intermittently with some degree of regularity;

"Wetland" means land such as a swamp, marsh, bog or fen (not including land that is being used for Agricultural Uses and no longer exhibits wetland characteristics) that:

- d) Is seasonally or permanently covered by shallow water or has the water table close to or at the surface;
- e) Has hydric soils and vegetation dominated by hydrophilic or water tolerant plants; and
- f) Has been further identified by the MNRF, or by any other Person, as such according to evaluation procedures established by the MNRF as amended;

"Wildlife Habitat" means land that:

- g) Is an area where plants, animals and other organisms live or have the potential to live and find adequate amounts of food, water, shelter and space to sustain their population, including an area where species concentrate at a vulnerable point in its annual or life cycle and an area that is important to migratory or non-migratory species; and
- h) Has been further identified by the MNRF, or by any other Person, according to evaluation procedures established by the MNRF, as they may be amended from time to time;

"Woodland" means a treed area, woodlot, or forested area, other than a cultivated fruit or nut orchard or a plantation established for producing Christmas trees.

PURPOSE

2. The goal of the By-law is to prohibit or regulate the placing or dumping of fill, the removal of soil and the alteration of the grade of lands within the Town of Newmarket and to establish regulatory requirements for land development and land disturbing activities aimed at minimizing the threats to public health, safety, public and private property, and natural resources from construction site erosion and post-construction stormwater runoff.

SERVABILITY

3. If a court or tribunal of competent jurisdiction declares any provision or part of a provision of this By-law to be illegal or unenforceable for any reason whatsoever, then that particular provision or part of the provision shall be severed and the remainder of this By-law shall continue to remain in full force and shall be valid and enforceable to the fullest extent permitted by law.

APPLICABILITY

- 3.1 No Person shall carry out any Site Alteration activity within the Town of Newmarket, without first obtaining a Permit, unless otherwise exempt as set forth in this By-law
- 3.2 The issuance of a Permit by the Municipality does not relieve the Applicant of the responsibilities of obtaining all other approvals, which may be required by the applicable Municipality, or any level of government and agencies thereof, or from the compliance with any other By-law, legislation or regulation.
- 3.3 In the case of provisions in this By-law and requirements of other agencies that overlap or conflict, the most restrictive provisions shall apply to site activities
- 3.4 The provisions of this By-law are not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this By-law imposes greater restrictions the provisions of this By-law will prevail.
- 3.5 The By-law is designed to be consistent with, and complementary to, the laws and regulations administered by other regulatory authorities such as but not limited to:
 - a) Ontario Ministry of the Environment and Climate Change (MOECC)
 - b) Ontario Ministry of Natural Resources and Forestry (MNR)
 - c) Lake Simcoe Region Conservation Authority (LSRCA)
 - d) Department of Fisheries and Oceans (DFO)

PROHIBITIONS

- 4.1 No Person shall permit or cause to be permitted any Site Alteration activities for storage purposes, unless the storage of such Fill on the Site is permitted by this By-law and the applicable Zoning By-law of the Municipality;
- 4.2 No Person shall permit or cause to be permitted any Site Alteration activities unless:
 - a. It is done at the request of or with consent of the Owner of the Site where the Fill is to be placed, dumped or removed;
 - b. All non-native or imported Fill to be placed is clean and free of trash, rubbish, glass, liquid or toxic chemicals and meets the standards set out in the Soil, Groundwater, and Sediment Standards referenced in O. Reg. 153/04, as may be amended from time to time, with respect to all contaminants in the Fill;
 - c. The Drainage system for the Site is provided in accordance with this By-law and all other applicable Town By-laws and the Town is satisfied that the provision has been made where such Drainage is not provided by natural gradients or a Swale; and
 - d. Erosion and Sediment Control (ESC) requirements are met as required by the By-law;
- 4.3 No Person shall carry out any Site Alteration on any Site during any period in which a wind warning for the area has been issued by Environment Canada, except for mitigation measures designed to prevent adverse impacts on Adjacent sites and the environment;

- 4.4 No Person shall carry out any Site Alteration Adjacent to or within thirty (30) metres of Wetlands, Fish Habitat, significant valley lands, significant woodlands, significant wildlife habitat, habitats of Rare, Threatened, Endangered or Species at Risk, Areas of Natural or Scientific Interest and permanent or intermittent streams without having been issued a Permit under this By-law by the Municipality and/or without having obtained written permission from the LSRCA where applicable;
- 4.5 No person who has obtained a Site Alteration Permit under this By-law shall place or Dumping Fill, remove Soil or alter any grade of land except in accordance with the plans, documents and any other information submitted to the Town by the applicant as part of the approved Application.
- 4.6 No Site Alteration shall occur on any lands zoned for Agricultural Uses unless the Owner provides a certificate, signed by a Qualified Person, confirming that the Site Alteration will result in maintaining or improving the overall fertility of the Agricultural Lands;
- 4.7 No Permit shall be issued if, and no Person shall permit or cause to be permitted, any Site Alteration activities that result in:
- a. soil erosion;
 - b. Blockage of a storm drainage system;
 - c. Blockage of a natural Drainage system or Watercourse;
 - d. Siltation or pollution in a Watercourse;
 - e. Flooding or Ponding caused by a Watercourse overflowing its banks;
 - f. Unreasonable hindrance of the orderly Development of lands within the Municipality;
 - g. Flooding or Ponding on a neighbouring property or adverse effects on the amenities Adjacent to the Site to which the Permit relates;
 - h. A negative impact on any Environmental Protection Areas or Areas of Natural or Scientific Interest, Wetlands or wetland complex as identified by the LSRCA, MNRF, the Town; and the Town's Official Plan or Zoning By-law, as each may be amended or replaced from time to time;
 - i. The contamination of Soil or groundwater; and
 - j. An adverse effect to archaeological or historically significant features.

EXEMPTIONS AND EXCEPTIONS

5 This By-law does not apply to:

- 5.1 Emergency work necessary to protect life, limb, or property;
- 5.2 Routine agricultural activity such as tilling, planting, harvesting and associated activities. Other agricultural activities are not exempt including activities such as construction of structures;
- 5.3 Sites less than 0.5 hectares in size shall be exempted from the requirements to obtain a Permit provided that:

- a. Such Site is not Adjacent to an Environmentally Protected Area and meets the criteria set out Section 4.7
- b. The Site Alteration does not in any way affect the land Drainage or slope stability of the abutting sites.

Despite the permit exemption, sites less than 0.5 hectares in size remain subject to, and shall comply with, all other relevant provisions of this By-law, and other applicable By-laws, legislation or regulation of any level of government.

5.4 Sites which have received a Site Plan Agreement or Subdivision Agreement from the Town are exempt from obtaining a Permit. Despite the permit exemption, these Sites remain subject to, and shall comply with, all other relevant provisions of this By-law.

5.5 Silvicultural activities (forestry management);

5.6 Where no more than 100mm of soil in depth is placed on sites for the purpose of lawn dressing, landscaping, adding to flower beds or vegetable gardens, provided that:

- a. There is no change in the location, direction or elevation of any natural or artificial Watercourse, open channel, Swale or ditch flow rate used to drain land; and
- b. There is control of any sediment run-off.

5.7 Site Alteration requirements imposed after December 31, 2002 as a condition of the approval of a Site plan, plan of subdivision or consent under Sections 41, 51, 53 respectively, of the Planning Act or as a requirement of a Site plan agreement or subdivision agreement entered into under those sections;

5.8 Site Alteration requirements imposed after December 31, 2002 as a condition to a Development permit authorized by regulation made under Section 70.2 of the Planning Act or as a requirement of an agreement entered into under the regulation;

5.9 Site Alteration requirements undertaken by a transmitter or distributor, as those terms defined in Section 2 of the Electricity Act, 1998, for the purpose of constructing and maintaining a transmission system or a distribution system;

5.10 Site Alteration undertaken as an incidental part of the drain construction under the Drainage Act, Tile Drainage Act, or the Municipal Act, 2001;

5.11 Removal of Topsoil as an incidental part of normal agricultural practices, sod-farming, greenhouse operations and nurseries for horticultural products. This exception does not include the Removal of Topsoil for sale, exchange or other deposition;

5.12 Site Alteration requirements undertaken on Sites as described in a license for a pit or quarry or a Permit for a wayside pit or wayside quarry issued under the Aggregate Resources Act, 2009;

5.13 Site Alteration requirements undertaken on Sites in order to lawfully establish and operate or enlarge any pit or quarry;

- a. That land has not been designated under the Aggregate Resources Act, 2009 or a predecessor of that Act; and
- b. On land on which a pit or quarry is a permitted land use under a By-law passed under Section 34 of the Planning Act;

- 5.14 If a regulation is made under Section 28 of the Conservation Authorities Act, respecting the Site Alteration in any area of the Municipality;
- 5.15 Removal or addition of soil where the quantity of soil removed or added in any one Site does not exceed five (5) cubic metres and does not contravene Section 4.7 of this By-law; or
- 5.16 Fill that is Placed or Dumped in an excavation to the elevation of Existing Grade following the demolition or Removal of a building or structure.
- 5.17 The excavation of swimming pools on residential properties regulated by other Town By-laws, including but not limited to the Pool Enclosure By-law, Town of Newmarket By-law Number 2008-18.

PERMIT ISSUANCE AND REVIEW PROCESS

- 6.1 All Permit applications must be completed in full, including all required supporting documentation provided, prior to the issuance of a Permit. The Applicant's failure to prepare a complete Stormwater Management Plan (SWMP) as required by the Town and/or ESC Plan as required by the Town will result in the decline of the permit application.
- 6.2 The following information and materials shall be submitted as part of an Application for a Site Alteration Permit:
- a. A completed application for a Site Alteration Permit, duly signed by the Applicant, prescribed by the Director as amended;
 - b. The application Permit fees as set out in the Town's Fees and Charges By-law as it may be amended from time to time;
 - c. Securities as per **Schedule "A"** of this By-law;
 - d. Proof of Insurance from an Insurer licenced in the Province of Ontario in the amounts required through the Town's Site Plan Approval Process or as required by the Director or designate;
 - e. A Site Alteration Plan, certified by a Qualified Person, meeting the standards set out in **Schedule "B"** of this By-law, containing the Site Design Guidelines as set out in **Schedule "C"** of this By-law;
 - f. A Stormwater Management Plan (SWMP) and Erosion and Sediment Control (ESC) Plan must be completed, and submitted as an application package for review, and approved by the Town to receive the necessary permit for the site.
 - g. Confirmation that the Applicant complies or will comply with the Permit Conditions as specified in **Schedule "D"** of this By-law as it may be amended from time to time to the satisfaction of the Director;
 - h. Confirmation that the appropriate archaeological assessments on the Sites deemed to have moderate to high potentials for the discovery of archaeological resources have been completed to the satisfaction of the Ontario Ministry of Culture; and

- i. A signed authorization by the Owner of the Site upon which the work is to be performed, or by a person authorized, in writing, to act as agent for the Owner, certifying the correctness of all the information in the Application;
- j. Where the Site is within the boundaries of the Oak Ridges Moraine Protection Plan or the Greenbelt Plan, the Application shall include any and all documents, reports or studies required by such plans to demonstrate compliance with the provisions of the plan;
- k. When requested by the Town, written confirmation from the LSRCA or any provincial or federal authority having jurisdiction that the Site Alteration Area, is under the jurisdiction of the LSRCA, provincial or federal authority;
- l. When requested by the Town, written confirmation from LSRCA or any provincial or federal authority that all conditions of the other authorities have been satisfied;
- m. In the event that there is more than one Source Material Site for the required volume of soil needed to complete earthworks, a Soil Management Plan shall be prepared and submitted for each Source Material Site;
- n. Any requirements as outlined in the Town's Tree Preservation, Protection, Replacement and Enhancement Policy 2008;
- o. Any additional information as required, in writing, by the Director.

6.3 The Director shall review all Applications and may issue a Permit upon the fulfillment of all of the following:

- (a) the Director is satisfied that the Site Alteration Area which is the subject of an Application is not within an area regulated by the LSRCA or any provincial or federal authority having jurisdiction, or if the Site Alteration Area is within such an area, that all conditions of the other authority have been satisfied;
- (b) the applicant has submitted a complete Application and met all of the requirements of this By-law;
- (c) the Director is satisfied that the proposed activities are all in accordance with proper engineering and environmental practices, laws and regulations;
- (d) the Director is satisfied that the work proposed under the Application will not result in the spread or migration of contamination in Soil, groundwater, sediment, or air to other areas of the site or to abutting sites, municipal infrastructure, roads and sidewalks;
- (e) in the 12 months prior to the Application there have been no orders, notices or charges under this Bylaw against the Applicant with respect to any other Site owned by the Applicant for which the Applicant had authority to apply for a permit under which the said orders, notices or charges arose;
- (f) the Director is satisfied that the Soil Management Plan is complete and acceptable to the Town; and

- (f) any other concerns of the Director have been satisfied.

EXPIRY, RENEWAL, TRANSFER, REVOCATION AND REFUSAL OF PERMITS

- 7.1 A Permit issued pursuant to the By-law shall be valid for a period of one (1) year from the date of issuance, after which the permit will expire.
- 7.2 Notwithstanding Section 7.1, Permits issued under this By-law shall expire (90) days after the date of issuance of the permit if Site Alteration activities have not commenced.
- 7.3 A Permit which is no longer valid or which has expired pursuant to this By-law must be renewed upon making a written application to the Town accompanied by payment of applicable fees, failing which, the Town may remedy any deficiencies outstanding at the expiration date pursuant to the provisions of this By-law at the Owner's expense.
- 7.4 The Applicant must amend an approved Permit to include additional requirements such as additional or modified site and SWM plans designed to correct problems whenever:
- a. there is a change in design, construction, operation, maintenance, weather or seasonal conditions that has a significant effect on the discharge of pollutants to surface water or underground water;
 - b. inspections or investigations indicate the plans are not effective in eliminating or significantly minimizing the discharge of pollutants to surface water or underground water or that the discharges are causing receiving water quality concerns;
- 7.5 If the title of the Site for which a Permit has been issued is transferred while the Permit remains in effect, the Permit shall be cancelled unless the new Owner of the Site, within thirty (30) days prior to the transfer, advises the Town of such transfer and provides the Town with an undertaking to comply with all the conditions under which the existing Permit was issued, including providing proof of insurances as required under Section 6.2 (d) and also provides a Security Deposit in accordance with the requirements of **Schedule "A"** of this By-law.
- 7.6 A Permit may be revoked by the Municipality under any of the following circumstances:
- a. It was issued in error;
 - b. The Owner or Permit Holder requests, in writing, that it be revoked;
 - c. The conditions of the Permit under this By-law have not been complied with;
 - d. Work authorized under the Permit has not been commenced prior to its expiry date as set out in Section 7.2 above, or
 - e. The Owner fails to comply with Subsection 7.5 and 7.4 of this By-law.
 - f. The Town is required to draw upon the Security Deposit for any other of the Applicant's Sites within the Town's jurisdiction for which a Permit for Site Alteration has been issued, as set out in Section 1.2(a) of Schedule A of this Bylaw.

- 7.7 In the event that a Permit is revoked, the Owner and/or the Permit Holder shall ensure that all work that was the subject of the revoked Permit ceases.
- 7.8 If a Permit has expired, been cancelled or revoked after the work has commenced and prior to the completion of Site Alteration, the Person, the Owner and the Permit Holders shall each be jointly responsible for the restoration of the Site to its original condition or stabilize the Site to the satisfaction of the Town in a manner that will prevent adverse impacts on the adjacent properties and the environment.
- 7.9 Where the Town refuses to issue a Permit, the Applicant shall be informed in writing of the refusal.

INSPECTIONS

- 8.1 In accordance with s. 436(1) of the *Municipal Act, 2001*, the Town may enter on the Site at any reasonable time for the purpose of carrying out an inspection to determine whether or not the following are being complied with:
- the provisions of this By-law;
 - a condition of a Site Alteration Permit issued under this By-law;
 - an order of the Town made under this By-law; or
 - an order made under s. 431 of the *Municipal Act, 2001*
- 8.2 For the purposes of conducting an inspection pursuant to section 7.1 of this By-law, the Town may, in accordance with the provisions in section 436(2) of the *Municipal Act, 2001*:
- require the production for inspection of documents or things relevant to the inspection;
 - inspect and remove documents or things relevant to the inspection for the purpose of making copies or extracts;
 - require information from any person concerning a matter related to the inspection; and
 - alone or in conjunction with a person possessing special or expert knowledge, make examinations or take tests, samples or photographs necessary for the purposes of the inspection.
- 8.3 The Director may delegate any of his/her duties under this By-law;

ENFORCEMENT

- 9.1 No Person shall hinder or obstruct, or attempt to hinder or obstruct, any Enforcement Officer who is exercising a power or performing a duty under this By-law;
- 9.2 This By-law shall apply to all Site Alteration on all Sites within the Town.
- 9.3 Enforcement Officers shall reserve the right to issue stop work orders when cooperation on inspections is withheld or when a violation has been identified that needs immediate attention to protect human health and/or the environment;
- 9.4 If an Enforcement Officer has reasonable and probable grounds to believe that a contravention of this By-law has occurred, the Enforcement Officer may make an order requiring work to be done to correct the contravention;

9.5 If an Enforcement Officer has reasonable and probable grounds to believe that a contravention of this By-law has occurred, the Enforcement Officer may make an order requiring the owner of the land and Person who caused or permitted to be caused the Site Alteration to discontinue all activities on the Site;

9.6 An order issued under Section 9.4 and 9.5 shall set out:

- a. The reasonable particulars of the contravention;
- b. What the Owner must do to rectify the contravention;
- c. The date and time by which the order must be complied with;
- d. A statement that if the work is not done in compliance with the order within the specified time period, the Town may have the work done at the expense of the Owner and any applicable charges that may be laid;
- e. Information regarding the Town's contact person; and
- f. The name of the Owner, the municipal address and the legal description of the Site that is the subject of the contravention;

Presumption

9.1 Where a Site Alteration has occurred in contravention of any of the provisions of the Bylaw, the Owner of the Site Alteration Area shall be presumed to have been the person who altered the Site, or caused or permitted the Site Alteration in contravention of this By-law, which presumption may be rebutted by evidence to the contrary on a balance of probabilities.

SERVICE OF ORDERS

10.1 Orders issued by an Enforcement Officer under Section 9.3, 9.4 and 9.5 shall be served by prepaid registered mail to the address which was provided on the Application. If served by registered mail, the document shall be deemed received by the Owner 5 working days after mailing.

OFFENCE AND PENALTY

11.1 If a person fails to do a matter or thing after being directed or required by the Town to do a matter or thing under this By-law (the "Work") then the Town may, undertake the Work at the person's expense. The Town may recover the costs of the Work from the person directed or required to do it by action or by adding the costs to the tax roll and collecting them in the same manner as property taxes or by drawing on the Security Deposit provided as part of the Application. If the costs for Work are greater than the remaining Security Deposit and the Town is not reimbursed within thirty (30) days of written demand thereof, the Director of Finance may add the costs, including interest, to the tax roll for the Site and collect them in the same manner as municipal taxes.

11.2 Every Person who contravenes any provision of this By-law is guilty of an offence and liable on conviction to a penalty not exceeding \$5000.00 exclusive of costs and the provisions of the Provincial Offences Act, R.S.O. 1990, c. P.33, as amended, shall apply to said fine;

- 11.3 Every Person who contravenes the provisions of any section of this By-law and every director or officer of a corporation, who knowingly concurs in the contravention by the said corporation, is guilty of an offence under the provisions of the Municipal Act 2001;
- 11.4 If there is a contravention of any provision of this By-law, and the contravention has not been corrected, the contravention of the provision shall be designated as a continuing offence for each day or part of a day that the contravention remains uncorrected.
- 11.5 If an order has been issued under this By-law, and the order has not been complied with, the contravention of the order shall be designated as a continuing offence for each day or part of a day that the order is not complied with.
- 11.6 For purposes of this By-law, if there is an offence respecting two or more acts or omissions, each of which separately constitutes an offence and is a contravention of the same provision of this By-law, then the offence is designated as a multiple offence.
- 11.7 For purposes of this By-law, an offence is a second or subsequent offence if the act giving rise to the offence occurred after a conviction had been entered for the same offence at an earlier date.
- 11.8 Every Person who contravenes the provisions of any section of this By-law and every director or officer of a corporation, who concurs in the contravention by the Corporation, is guilty of an offence and liable on conviction to a penalty where the minimum fine shall not be less than \$500 and a maximum fine shall not exceed \$100,000 exclusive of costs under the provisions of the Municipal Act 2001;
- 11.9 For the purpose of Continuous Offences, every Person who contravenes any provision of this By-law and every director or officer of a corporation who knowingly concurs in the contravention of a By-law of the corporation is guilty of an offence and liable on conviction to a penalty not exceeding \$10,000, exclusive of costs under the provisions of the Municipal Act 2001;
- (a) Notwithstanding Section 11.8, the total of all daily fines for the offence is not limited to \$100,000
- 11.10 For the purpose of Multiple Offences, every Person who contravenes any provision of this By-law and every director or officer of a corporation who knowingly concurs in the contravention of a By-law of the Corporation is guilty of an offence and liable on conviction to a penalty not exceeding \$100,000, exclusive of costs under the provisions of the Municipal Act 2001;

SHORT TITLE

12 This By-law shall have the short title "The Site Alteration By-law".

REPEALING SECTION

13 By-law Number 1998-110 is hereby repealed.

FORCE AND EFFECT

14 This By-law shall come into force and have effect immediately upon the final passing thereof.

SCHEDULES

Schedule "A" Security Deposit

Schedule "B" Standards for Site Alteration Plans

Schedule "C" Site Design Guidelines

Schedule "D" Permit Conditions

Schedule "E" Application for Site Alteration Permit

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SCHEDULE A: SECURITY DEPOSIT AND FEE

- 1.1 The Town will require a Security Deposit in such amount as determined by the Director in his or her sole discretion, which may be drawn upon by the Town to remedy any deficiency in any work or to correct any works completed under the Permit issued under this By-law, including but not limited to the following works:
 - a. Damages to roads such as mud tracking and dust control;
 - b. Site restoration;
 - c. Installation and/or replacement of ESC measures;
 - d. Installation and/or replacement of stormwater management measures;
 - e. Installation and/or replacement of measures to protect the safety of the public;
 - f. Damages as a result of failure of ESC and/or stormwater management measures.
- 1.2 If at any time during the course of the work the Town is required to draw upon the Security Deposit to remedy any deficiency in any work or correct any works under the Permit issued under this By-law, the Municipality may:
 - a. Revoke the Permit issued by the Town to the Applicant for the Site in question;
 - b. Require the Applicant to execute Subdivision Agreement or Site Plan Agreement before works can continue.
- 1.3 The Security Deposit must remain in effect for the full duration of the permit (the "Permit Term") and the Permit Holder agrees that any interest accruing on the Security Deposit shall belong to the Town and not the Permit Holder. Any Security Deposit in the form of a letter of credit and its subsequent renewal forms shall contain a clause stating that thirty (30) days written notice must be given to the Municipality prior to its expiry or cancellation; and
- 1.4 In the event that the Town receives notice that the said letter of credit is expiring and will not be renewed, or, if further or additional securities are not provided to the Town by the Permit Holder within the said thirty (30) days, the Town may draw on the said letter of credit at the discretion of the Director to render the letter of credit security into a cash deposit security.
- 1.5 It is the responsibility of the Permit Holder:
 - a. To provide proof satisfactory to the Town that the Site has been adequately reinstated and stabilized in accordance with the requirements of this By-law and the Site Alteration Plan accompanying the Permit; and
 - b. To request in writing at least fourteen (14) days prior to the expiry of the permit that the Town carry out a final inspection to confirm that all relevant terms of this By-law have been complied with;
- 1.6 The Security Deposit shall not be released by the Town until written certification has been provided by the Permit Holder that the Site Alteration meets the applicable site condition standard, as determined by a Qualified Person;
- 1.7 If circumstances exist such that noncompliance within this By-law poses an immediate danger to the public health, safety and welfare, as determined by the Town, the Town may take emergency preventative action. The Town shall also use

the information provided on the permit application to contact the Applicant and direct the Applicant to take any necessary action. Any cost to the Municipality may be recovered from the Security Deposit and/or added to the tax roll and collected in the same manner as property taxes;

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SCHEDULE B: STANDARDS FOR SITE ALTERATIONS PLANS

The Owner shall ensure that the information required for Site Alteration Plans are provided by a Qualified Person Two (2) hard copies and one (1) digital copy on CD or USB of the Site Alteration Plan are required to be submitted to the Director of Engineering Services. All plans are to be in metric units and printed from the original drawings with all information provided legible and clear.

GENERAL REQUIREMENTSThe Site Alteration Plan shall be at a scale of 1:500 and shall include the following requirements:

- 1.1 The use of the Site and the location of all existing and proposed buildings and other structures;
- 1.2 The location of driveways and municipal road allowances;
- 1.3 The location of the Regional storm flood line and the LSRCA Fill regulation lines shall be shown within the Site boundary;
- 1.4 The location of any existing septic systems and private wells and/or existing municipal services;
- 1.5 The location and species types of existing vegetative cover, including the species and size of all trees;
- 1.6 The location and dimensions of any existing and proposed storm water drainage systems and natural drainage patterns on and within thirty (30) metres beyond the Site boundary;
- 1.7 Description of any existing easements on the Site;
- 1.8 The identification of the proposed Finished Grade elevations of the Site;
- 1.9 The location and dimensions of all proposed Site Alteration activities;
- 1.10 The location and dimensions of all proposed temporary stockpiles for Fill, Soil and other materials;
- 1.11 The location and dimension of all proposed access routes;
- 1.12 The location and dimensions of all proposed staging areas for equipment;
- 1.13 An indication on the drawing of the directions of overland flow and overland flow routes;
- 1.14 Provisions for the maintenance of the Site and control measures and a schedule for monitoring procedures during construction, including a mud tracking prevention program. This shall describe the procedure for mud tracking prevention and road clean up and designate a contact Person for such a program throughout each land disturbing and land developing activity;
- 1.15 A maintenance plan that includes, but is not limited to, who will conduct the maintenance, type of maintenance needed, maintenance intervals and demonstrating that at the time of final stabilization that the stormwater facilities conform to design specifications;
- 1.16 A schedule of the anticipated start and completion dates of each land disturbing or land developing activity including the installation of ECS measures needed at the Site to meet the requirements of the By-law

- 1.17 Details of the Site rehabilitation including the type and location of all interim and permanent stabilization measures;
- 1.18 A key map showing the location of the Site, Site boundaries, number of hectares of the Site, the Site Alteration Area, the Site address or Site number, plan numbers, bearing distance over perimeter, the nearest major intersection, a legend and a north arrow;
- 1.19 A field survey of the existing Site topography at a contour interval not to exceed one half of one metre determined in accordance with the Canadian Geodetic Datum and to extend a minimum of thirty (30) metres beyond the Site boundary with spot elevations along the property line at 0.5-1.0 metre intervals to clearly show the existing Drainage patterns on the Site and the Adjacent Sites;
- 1.20 The location, dimensions, design details and design calculations of all Site control measures, including plan and profile drawings of ESC and SWM devices, necessary to meet the requirements of this By-law;
- 1.21 A certificate on the drawings, executed by a Qualified Person in the following form:
- "I have reviewed the plans for the construction of _____ located at _____ and have prepared this plan to indicate the compatibility of the proposal to existing adjacent properties and municipal services. It is my belief that adherence to the proposed grades as shown will produce adequate surface drainage and proper facility of municipal services without any detrimental effect to the existing drainage patterns or adjacent properties."

Such other information with respect to the Site may be required by the Municipality.

STORMWATER MANAGEMENT PLAN

1.2 A Stormwater Management (SWM) Plan will be required, prior to any proposed land development activity that meets any of the criteria in a) through e) below:

- (a) Any land development activity or site alteration that may ultimately result in the disturbance of 5000 sq. meters (0.5 hectares) or more of land within any one year period, including smaller individual sites that are part of a common plan of development that may be constructed at different times;
- (b) Any land development activity or site alteration within 120 metres of a key natural heritage feature (e.g. wetland, woodland), a key hydrologic feature (e.g. water course) or the significant habitat of endangered and threatened species as defined in the Lake Simcoe Protection Plan;
- (c) A plan of subdivision, condominium, or site plan;
- (d) The construction of any new private road;
- (e) Any land development activity or site alteration, that the Town determines is likely to cause an adverse impact to an Environmentally Sensitive Area or other property, or as required by the Town.

1.2 Stormwater Management Plan Requirements:

The SWMP shall include, but not limited, to the following requirements:

General:

- 9.1.1 A SWMP must be stamped and signed by a Qualified Person and shall be completed as submitted as part of the Site Alteration Plan prior to the Site Alteration activities.
- 9.1.2 A description of the Site Alteration activities: The description must be a combination of narrative, plan sheets, and (if appropriate) standard detail sheets that address the foreseeable conditions, at any stage in the construction or post construction activities.
- 9.1.3 The SWMP must include any stormwater mitigation measures approved as part of an environmental review, endangered species review, archaeological or other required review conducted for the project. For the purposes of this permit provision, mitigation measures means actions necessary to avoid, minimize, or rectify) e.g., repairing, rehabilitating, restoring), reducing, eliminating or compensating for impacts related to: (1) stormwater discharges associated with the project's construction activity; and (2) erosion prevention, sediment control and the Permanent SWM System for the project;
- 9.1.4 The SWMP must identify additional or different measures necessary (e.g., impervious liner in pond bottom) to assure compliance with source water and groundwater protection plans in karst areas and to ensure protection of drinking water source areas;
- 9.1.5 The SWMP must identify and address additional or different standards such as wellhead protection areas and make protection zones to ensure protection of Municipal drinking water supplies;

Site Maps:

- (a) A site map with existing and final grades, including dividing lines and direction of flow for all pre- and post-construction stormwater runoff drainage areas located within the project limits must be included. The site map must indicate the areas of steep slopes.
- (b) The site map must also include impervious surfaces, soil types adhere to Lake Simcoe watershed Soil Classification mapping, and locations of potential pollutant-generating activities such as the storage, handling, and disposal of Site Alteration activities, materials, and wastes, fuelling and maintenance of equipment or vehicles, vehicle and equipment washing, and concrete and other washout waste.
- (c) Buffer zones must be described and identified on plan sheets or project maps in the SWMP
- (d) Location of areas where construction will be phased to minimize duration of exposed soil areas must be described
- (e) The SWMP must include a map of all surface water, existing wetlands, and stormwater ponds or basins which can be identified within one kilometre (aerial radius measurement) from the project boundaries and specify if they will receive

stormwater from the construction site, during or after construction. Where surface waters receiving stormwater associated with construction activity will not fit on the plan sheet, they must be identified with an arrow, indicating both direction and distance to the surface water.

Erosion and Sediment Control:

- (a) The SWMP must identify the potential for discharge of sediment and/or other potential pollutants from the site that would have a negative impact on surface and ground water. The SWMP must contain erosion prevention and sediment control BMPs to control the discharge of sediment and/or other potential pollutants from the site;
- (b) As part of the SWMP, the Owner must identify a person qualified in the application of erosion prevention and sediment control BMPs who will oversee the implementation of the SWMP, and the installation, inspection and maintenance of the erosion prevention and sediment control BMPs before and during construction. The Owner must identify in the SWMP who will have the responsibility for long-term operation and maintenance of the Permanent SWM System. The Owner shall include in the SWMP a chain of responsibility with all operators on the Site, or if not known, the title or position of the responsible party, to ensure that the SWMP will be implemented and stay in effect until the construction project is complete and the entire Site has undergone Final Stabilization.
- (c) The SWMP must incorporate the requirements of the By-law and include a narrative describing the timing for installation of all erosion prevention and sediment control BMPs and permanent SWM systems must also be included.
- (d) The SWMP requirements must be incorporated into the project's final plans and specifications and/or project documentation, as appropriate, and must include:
 - i. Location and type of all temporary and permanent erosion prevention and sediment control BMPs along with procedures to be used to establish additional temporary BMPs as necessary for the site conditions during construction. Standard details and/or specifications for the BMPs used on the project must be included in the final plans and specifications for the project;
 - ii. Estimated preliminary quantities tabulation anticipated at the start of the project for the life of the project must be included for all erosion prevention and sediment control BMPs in the SWMP (e.g., linear metres of silt fence or square metres of erosion control blanket);
 - iii. The number of hectares of impervious surface for both pre- and post-construction must be specified.
- (e) Any specific chemicals and the chemical treatment systems that may be used for enhancing the sedimentation process on the Site and how compliance will be achieved must be described;

Design Calculations:

- (a) The SWMP must account for the following factors (i to iii) in designing the temporary erosion prevention and sediment control BMPs, considering (at minimum) the 1 in 2 year, Type II SCS, 24 hour duration design storm:
 - i. The expected amount, frequency, intensity, and duration of precipitation;

- ii. The nature of stormwater runoff and run-on at the site, including factors such as expected flow from impervious surfaces and site drainage features;
 - iii. If any stormwater flow will be channelized at the site, the Applicant must design BMPs to control both peak flow rates and total stormwater volume to minimize erosion at outlets and to minimize downstream channel and stream bank erosion.
- (b) When the facility discharges to a coldwater stream, the Permanent Stormwater Management System shall be designed such that the discharge from the project will minimize any increase in the temperature of coldwater stream receiving waters resulting from the 1 in 2 year, Type II SCS, 24 hour duration design storm. Projects which discharge to coldwater streams must minimize the impact using one more or more of the following measures, in order of preference:
- i. Minimize new impervious surfaces;
 - ii. Minimize the discharge from connected impervious surfaces by discharging to vegetated areas, or grass swales, and through the use of other non-structural controls;
 - iii. Infiltration or other volume reduction practices to reduce runoff in excess of pre-project conditions (up to the 1 in 2 year, Type II SCS, 24 hour duration design storm);
 - iv. If ponding is used, the design must include an appropriate combination of measures such as shading, filtered bottom withdrawal, vegetated swale discharges or constructed wetland treatment cells that will limit temperature increase. The pond should be designed to draw down in 24-48 hours;
 - v. Other methods that will minimize any increase in the temperature of the coldwater stream.

Final Stabilization:

- (a) Methods to be used for Final Stabilization of all exposed soil areas must be described. Final stabilization is not complete until all requirements (i to v) outlined in this section below are complete:
- i. All soil disturbing activities at the site have been completed and all soils are stabilized by a uniform perennial vegetative cover with a density of 70 percent of its expected final growth density over the entire pervious surface area, or other equivalent means necessary to prevent soil failure under erosive conditions;
 - ii. The permanent SWM system is constructed and is operating as designed. Temporary or permanent sedimentation basins that are to be used as permanent water quality management basins have been cleaned of any accumulated sediment. All sediment has been removed from conveyance systems and ditches are stabilized with permanent cover;
 - iii. All temporary synthetic and structural erosion prevention and sediment control BMPs (such as silt fence) have been removed on the portions of the site for which the Applicant is responsible. BMPs designed to decompose on site (such as some compost logs) may be left in place;
 - iv. For residential construction only, individual lots are considered finally stabilized if the structure(s) are finished and temporary erosion protection and down-gradient

perimeter control has been completed and the residence has been sold to the homeowner;

- v. For construction projects on agricultural land (e.g., pipelines across crop, field pasture or range land) the disturbed land has been returned to its preconstruction agricultural use.
- vi. For projects that include permanent stormwater treatment systems, the SWMP must include a maintenance and monitoring plan identifying who will be performing future maintenance and monitoring of the system;

EROSION AND SEDIMENT CONTROL PLAN

1.4 An ESC Plan shall be required prior to any proposed land disturbing activity, unless otherwise exempted in this By-law;

1.5 An ESC Plan shall be completed and submitted as part of the Site Alteration activities, when applicable. An ESC Plan shall include, but may or may not be limited to the following requirements:

- (a) Project description including the nature and purpose of land disturbing activity, the legal description of the Site, and a reference to Adjacent Sites and landmarks;
- (b) Condition of the existing Site including Site use, Site topography, Soils, vegetation, Drainage systems, and receiving waters;
- (c) Protection of receiving water bodies, wetlands, and storm sewer inlets;
- (d) Description of areas within the Development Site that have potential for serious erosion or sediment transportation problems;
- (e) A delineation and description of the measures to be undertaken to prevent erosion and to retain sediment on the Site, including, but not limited to, the designs and specifications for swales, dikes, drains, sediment control ponds, and a schedule for their maintenance and upkeep;
- (f) A delineation and description of the vegetative measures to be used, including, but not limited to, mulches, types of seeds and fertilizers and their application rates, the type, location and extent of pre-existing and undisturbed vegetation types and a schedule for maintenance and upkeep;
- (g) Description of any new ESC techniques and effective measures provided such techniques are proven to be as or more effective than the equivalent ESC;
- (h) Record keeping procedure including sample inspection and maintenance forms. Maintenance record keeping procedure including reporting and on-Site documentation system;

1.6 Significant effort shown to minimize the following:

- (a) Disturbance of natural soil cover and vegetation, including vegetated buffers along watercourses;
- (b) Exposed soil and unstable soil conditions;
- (c) Off-site sediment transport on trucks and equipment;
- (d) Work in and adjacent to water bodies and wetlands;

- (e) Compaction of site soils; and
- (f) Dust from construction activities.

1.7 The ESC Plan must be stamped, dated and signed by a Qualified Person.

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SCHEDULE C: SITE DESIGN GUIDELINES

SITE EROSION AND SEDIMENT CONTROL PRACTICES

- 1.1 The Site Alteration Plan should consider the following types of stabilization practices for soil ESC controls;
- (a) Vegetative stabilization practices such as temporary seeding, sod stabilization, permanent seeding and planting, maintenance of buffer zone, and preservation of natural vegetation;
 - (b) Non-vegetative stabilization practices such as mulching, geo-textiles, Soil-retaining measures and stream bank stabilization; and
 - (c) In-stream stabilization practices such as temporary stream crossings, cofferdams, dry flumes, sediment curtains, by-passes or full diversions, and de-watering.
- 1.2 Runoff velocity dissipation measures, which slow down the runoff flowing across the Site by using measures such as check dams, surface roughening and gradient terraces;
- 1.3 Stormwater runoff controls, which prevent runoff from flowing across disturbed areas by using measures such as earth dikes, Drainage Swales and drains;
- 1.4 BMPs such as construction phasing, horizontal slope grading, delineation of areas not to be disturbed (e.g., with flags, stakes, signs, etc.), and terracing on steep slopes;
- 1.5 All storm drain inlets shall be protected with appropriate sediment barriers so as not to admit sediment-laden runoff from the disturbed areas. The control measures chosen must meet the standards and specifications accepted by the Director of Engineering;
- 1.6 Structural practices such as temporary sediment control ponds, which hold stormwater runoff in a controlled fashion and remove sediments in the storage device; and
- 1.7 In the event that a sediment control pond cannot be constructed to service the entire Site (i.e., capture all runoff from the Site), the reasons must be documented and alternative control measures must be implemented. Other sediment control measures, which remove sediments from runoff before it leaves the Site, include silt fences, sediment traps, storm drain inlet protection, and filter fabrics.

Temporary sediment control pond

- 2.1 For Sites with more than two (2) hectares disturbed at a time, or in a staggered manner, all of which are served by a common discharge location, a series of Sediment Control Ponds shall be provided. The Applicant is encouraged, but not required to install temporary sediment basins where appropriate in areas with steep slopes or highly erodible soils, even if less than two (2) hectares drains to one area.
- 2.2 Sediment Control Pond Design should be as follows:

- a. The Sediment Control Pond shall be constructed prior to topsoil stripping or fill placement;
- b. The Sediment Control Pond and conveyance channels shall be located in such a way that the runoff will be captured and conveyed from as much of the Site Alteration Area to the pond as possible;
- c. Sediment Control Ponds should have two components:
 - i. Active Storage Volume, which should be designed with a minimum of 125 cubic metres/hectare contributing drainage area with a minimum 48 hour drawdown time (minimum 75mm diameter orifice), and a minimum 4:1 L:W ratio of the pond;
 - ii. Permanent Pool Volume, with a minimum 125 cubic metres/hectare contributing drainage area, or minimum 185 cubic metres/hectare contributing drainage area if L:W ratio is less than 4:1, or the drawdown time for active storage is less than 48 hours
- d. Sediment Control Pond outlets must be designed to prevent short-circuiting and the discharge of floating debris. The basin must be designed with the ability to allow complete basin drawdown for maintenance activities, and must include a stabilized emergency overflow to prevent failure of pond integrity. The outlet structure must be designed to withdraw water from either the surface and/or bottom draw, to provide operational flexibility in order to minimize the discharge of pollutants. The use of a surface withdrawal mechanism for discharge of the basin may be temporarily suspended during frozen conditions;
- e. Sediment Control Ponds must be situated outside of surface waters and any buffer zone, and must be designed to avoid draining water from wetlands;
- f. The length to width ratio should be three (3) or greater, but less than six (6) (ideally 4:1). Interior side slopes should be 3:1. Basin depth should be a minimum of 1.0 metres to avoid re-suspension of previously settled out sediment and less than 2.5 metres;
- g. The Site Alteration Plan shall provide the maintenance schedule. The sediment control pond must be cleaned once the designed permanent pool volume has been reduced by 50%. To verify sediment accumulation, the Sediment Control Pond should be measured at least on a monthly basis from the start of land disturbance. Material that is dredged from a pond shall be stored on the lot in a suitable location; and
- h. Where a temporary sediment basin meeting the requirements of this part is infeasible, equivalent sediment controls such as smaller sediment basins, and/or sediment traps, silt fences, vegetative buffer strips, or any appropriate combination of measures are required for all down-slope boundaries of the construction area and for side-slope boundaries as dictated by individual site conditions.

LAND DISTURBING ACTIVITIES THAT RESULT IN RUNOFF LEAVING THE SITE

- 3.1 All the activities on the property shall be conducted in a phased manner subject to the satisfaction of the Municipality to minimize the area of bare soil exposed at any one time;
- 3.2 Concentrated runoff from adjacent areas passing through the Site shall be diverted around disturbed areas, if practical. Otherwise, the channel shall be protected by cut-off swales and/or silt fences being placed along channel edges to avoid sediment from disturbed areas reaching the channel;
- 3.3 Stabilization works of all exposed soil areas (including stockpiles) must be initiated immediately whenever any construction activity has permanently or temporarily ceased on any portion of the site and will not resume for a period exceeding 15 calendar days. Stabilization works must be completed no later than 15 calendar days after the construction activity in that portion of the site has temporarily or permanently ceased. Temporary stockpiles without significant silt, clay or organic components (e.g., clean aggregate stockpiles, demolition concrete stockpiles), and the constructed base components of roads, parking lots and similar surfaced are exempt from this requirement;
- 3.4 If using stormwater conveyance channels, channels must be designed to route water around unstable areas on the site and to reduce erosion. The Applicant must use erosion controls and velocity dissipation devices, such as check dams, sediment traps, riprap, or grouted riprap at outlets within and along the length of any constructed stormwater conveyance channel, and at any outlet.
- 3.5 Unless infeasible due to lack of pervious or vegetated areas, discharges from BMPs must be directed to vegetated areas of the Site (including any natural buffers) in order to increase sediment removal and maximize stormwater infiltration. The Applicant must use velocity dissipation devices if necessary to prevent erosion when directing stormwater to vegetated areas;
- 3.6 All Topsoil stockpiled, prior to the passing of the By-law shall be subject to the provisions of this By-law;
- 3.7 For Sites adjacent to existing residential areas, a fence and cut-off swale/channel may be required around the entire perimeter of the Site to prevent Drainage onto private lands. A three (3) metre wide buffer strip and/or sediment control fence shall be provided along the perimeter of the down-slope boundaries of the Site;
- 3.8 The Erosion & Sediment Control Guideline for Urban Construction prepared by the Greater Golden Horseshoe Area Conservation Authorities, the MNRF for the Province of Ontario, are to be followed;
- 3.9 For Sites with extensive Fill requirements, the Director of Engineering Services may waive the requirements for stabilization of disturbed areas after fifteen (15) days of inactivity provided that the sediment control measures have been implemented to the satisfaction of the Director of Engineering Services;
- 3.10 All waste and unused building materials (including garbage, cleaning wastes, wastewater or any hazardous materials) shall be properly disposed of and not allowed to be mixed with soil and carried by runoff from the Site into a receiving watercourse or storm sewer system;
- 3.11 Precautions shall be taken to ensure that mud will not be tracked offsite by any vehicle exiting the Site;

- 3.12 Stabilization shall take the form of the Town Engineering Design Standards and Criteria.

SITE DEWATERING

- 4.1 Dewatering operations may be conducted provided that water is not permitted to discharge directly into the receiving Body of Water and meets federal, provincial and municipal water quality requirements set forth through legislation;
- a. If water is demonstrated through laboratory analysis to meet the requirements set forth in the Municipality's Sewer Use By-law and a permit to dewater has been obtained from the Municipality both from the upper and lower tier as appropriate, then dewatering operations may be conducted provided water is not permitted to discharge directly into a receiving Body of Water;
- 4.2 Water pumped from the Site shall be treated by structural devices such as Sediment Control Ponds, grit chambers, filter bags, sand filters, up-flow chambers, swirl concentrators or other appropriate controls. The Applicant may discharge from the temporary or permanent structural device to surface waters if the discharging water has been visually checked to ensure adequate treatment has been obtained and that nuisance conditions will not result from the discharge. Monitoring expectations, along with the development of an appropriate contingency plan, need to be clarified during mandatory pre-application meeting with Municipality and other relevant agencies (e.g., LSRCA);
- 4.3 The Applicant must ensure that discharge points are adequately protected from erosion and scour. The discharge must be dispersed over natural rock riprap, sand bags, plastic sheeting, or other accepted energy dissipation measures;
- 4.4 Where a Permit to Take Water from the MOECC is required for the Site, the Applicant is still required to obtain a written approval from the Municipality by way of a discharge agreement to discharge water through the Municipality's Sewer Use By-law as may be amended or replaced from time to time;
- a. If site alteration requires dewatering in excess of 50,000 litres/day (requires a Permit to Take Water) in a wellhead protection area and/or within two (2) kilometres of a municipal well, a dewatering plan may be required to the satisfaction of York Region;
- 4.5 Where a SWM effluent discharge is required for the Site, the Applicant is required to obtain a written approval from the Municipality by way of a discharge agreement to discharge in accordance with the Regional Municipality of York Sewer Use By-law 2011-56 as may be amended or replaced from time to time;

SCHEDULE D: PERMIT CONDITIONS

1.1 All Permit Holders under this By-law shall:

- a. Notify the Town within 48 hours following commencement of any Site Alteration activity;
- b. Notify all residents, within a 500 metre radius of the Site, three (3) weeks before the commencement of Site Alteration;
- c. Notify the Town of the completion of any ESC measures, within 48 hours after installation;
- d. Notify the Town of the removal of any ESC measures, within 48 hours after decommissioning;
- e. Obtain permission in writing from the Town prior to modifying the Site Alteration Plan;
- f. Install all ESC measures, as identified in the approved Site Alteration Plan, prior to Soil Stripping;
- g. Maintain all road Drainage systems, stormwater Drainage systems, control measures and other facilities identified in the approved Site Alteration Plan;
- h. Repair any erosion or sediment damage to adjoining surfaces and Watercourses resulting from Site Alteration activities immediately and not later than within 24 hours;
- i. Inspect the ESC measures at least once per week and after each rainfall and provide written inspection reports to the Town. Complete any repairs within 24 hours to the satisfaction of the Director;
- j. Allow employees of the Town and/or any other Person(s) working on behalf of the Town, to enter the Site for the purpose of inspecting for compliance with the approved Site Alteration Plan or for performing any work necessary to bring the Site into compliance with the approved Site Alteration Plan;
- k. Maintain a current approved copy of the Site Alteration Plan and the Permit on the Site, as well as, copies of all inspection reports, at all times;
- l. Be responsible for the activities of agents, servants, employees, contractors and subcontractors who may create a situation of non-compliance of the Permit;
- m. Construct additional ESC measures, not identified in the Site Alteration Plan, as deemed necessary by the Director of Engineering Services to ensure no erosion and sediment damage to the Adjacent Sites; and
- n. Not remove any vegetation designated as environmentally significant or otherwise to be protected unless permission is obtained from the Town;

1.2 The Town may:

- a. Upon failure by the Permit Holder to complete all or part of the works in the time stipulated in the approved Site Alteration Plan or work required by an order under Section 9.4 and 9.5 of this By-law is not done within the specified period, draw the appropriate amount from the Security Deposit and use those funds to arrange for the completion of the said works, or any part thereof;

- b. Upon failure by the Permit Holder to install, repair, maintain or decommission a specific ESC as requested by the Town, and in the time requested, authorize the use of all or part of the Security Deposit to pay for the associated costs incurred, at the Director of Engineering Services discretion as deemed necessary at any time; or
- c. In the case of emergency repairs or clean-up, undertake the necessary works at the expense of the Permit Holder and reimburse itself out of Security Deposit; and
- d. Inform the Applicant, where necessary, that additional information is required to ensure that erosion and sediment damage does not occur to Adjacent Sites from the activities on the Site.