

Policy Discussion Papers - Preliminary Discussion



Request for Recommendation

Top Soil Removal & Site Alteration By-law

Presented To:	Priorities Committee
Presented:	Wednesday, Jan 21, 2009
Report Date	Friday, Jan 09, 2009
Type:	Policy Discussion Papers - Preliminary Discussion

Recommendation

THAT the Top Soil Removal and Site Alteration By-law report and draft by-law be accepted in principle, and

THAT the Top Soil Removal and Site Alteration report and by-law be referred to City staff for a meeting in February, 2009, to be attended by staff and any Members of Council who wish to attend in order to receive feed back from the general public, agricultural community and top soil producers, and

THAT an updated report and by-law be brought back to the Priorities Committee for adoption.

Finance Implications

The fees identified in the bylaw are sufficient to offset the costs related to compliance and enforcement.

Signed By

Report Prepared By

Guido Mazza
Director of Building Services/Chief
Building Official
Digitally Signed Jan 14, 09

Recommended by the Department

Bill Lautenbach
Acting General Manager of Growth and
Development / Planning Director
Digitally Signed Jan 14, 09

Recommended by the C.A.O.

Doug Nadorozny
Acting Chief Administrative Officer
Digitally Signed Jan 15, 09

Background

Further to City Council's Resolution 2006-541 dated February 22, 2006, an "Agricultural and Topsoil Advisory Panel" was established in part to examine Council's process, provisions, secondary plans, zoning and Official Plan policy with respect to agricultural land/top soil preservation. Council representation consisted of Councillors Bradley, Thompson and Dupuis.

Meetings were held throughout 2006, including two public meetings with top soil producers (June 26, 2006) and the agricultural community (July 25, 2006) seeking input into the issue of regulating top soil removal. The minutes of these meetings are attached to this report (see Appendix 'A'). The consensus of the Panel and the public was that some form of control was required.

After the municipal elections of November, 2006, Council re-established the "Agricultural & Top Soil Advisory Panel" with Council represented by Councillors Dutrisac and Berthiaume.

The Advisory Panel was advised on June 28, 2007, that progress to complete a Top Soil Removal By-law was impeded by the lack of internal resources to which Council approved a budget option for the 2008 Budget to address the issue.

Provincial & Local Historical By-law Background

In 1977, the Province passed the Top Soil Preservation Act giving all municipalities the power to pass by-laws regarding the stripping of top soil.

In 1982, the Regional Municipality of Sudbury prepared and considered such a by-law. The by-law received two readings by Regional Council. Council ultimately felt that the Act was flawed and that any by-law would be of little use, so they chose not to give the by-law a third and final reading.

The Towns of Rayside-Balfour and Walden also considered passing a by-law several times in the 1980s and 1990s but did not pass one.

In 1992, the Town of Valley East passed By-law 92-21 on this topic. This by-law remains in effect for the area of the former town, however it is based on the 1977 Top Soil Preservation Act which has been replaced by new provisions in the Ontario Municipal Act, which came into effect on January 1, 2003, and was further modified in 2007.

Intent

This report presents a Top Soil Removal and Site Alteration By-law to deal with the preservation of Agricultural Reserve lands and the regulation of top soil removal, placing and dumping of fill in areas outside the current Agricultural Reserve including rural and former Agricultural Reserve areas.

Activities such as top soil removal, placing or dumping of fill and the grading of land can lead to problems such as flooding and erosion, poor water quality, the degradation of farm land and damage to significant natural areas. Where development is involved, site alteration is regulated through the planning approvals process, but there are other situations where there is currently no mechanism to ensure that site alterations do not result in harm to adjacent properties, agricultural resources or a healthy environment. The proposed site alteration by-law would provide such a mechanism.

The Top Soil Removal and Site Alteration By-law would protect areas where there is currently no means for the regulation of issues such as drainage and pre-development land disturbances.

The Municipal Act, 2001, permits municipalities through the implementation of a Site Alteration By-law to:

- prohibit or regulate the placing or dumping of fill, the removal of topsoil as well as the alteration of the grade of land,
- require a permit for these activities,
- demand reparation of damaged land with full cost recovery, and
- impose fines when fill has been dumped illegally.

Council, through its "Agricultural and Top Soil Advisory Panel", had requested staff review existing policies and if necessary prepare a by-law dealing with top soil removal. After reviewing a number of municipalities throughout Ontario for "best practice" principles, the Panel and staff concluded that a new, more comprehensive Top Soil Removal and Site Alteration By-law was the best alternative. A draft copy of this by-law is included in this report (see Appendix 'B').

The Benefits of a Top Soil Removal and Site Alteration By-law

The Top Soil Removal and Site Alteration (TSRSA) By-law would assist the municipality in a number of ways. A TSRSA By-law will:

- Protect lands within our "Agricultural Reserve" from further top soil removal activities and regulate removal/alteration on lands designated as rural.
- Protect the environment by prohibiting the dumping of incompatible material on agricultural land or in an environmentally sensitive area, when no permits or planning approvals have been granted to do so. Should damage be done to the land in such a way, the removal of the offending material, the reparation of the site, as well as the recovery of costs to do so, could be accomplished through a TSRSA By-law.
- Provide guidelines for developers who wish to grade land or stockpile topsoil prior to planning approvals. It would permit a developer to do some pre-development site preparation work, but under the direction of the municipality.
- Address instances where fields have been improperly leveled in agricultural areas, the filling or re-routing of creeks or intermittent streams, the dumping of soil and other debris into valleys by homeowners, the filling in of valley lands and woodlots, and the filling or draining of wetlands.
- Ensure that the alteration of drainage patterns does not have a negative impact on neighbouring properties.
- Reduce dust and erosion problems in accordance with acceptable engineering practices and controls.

The Essence of the By-law

No person shall remove top soil, place or dump fill on land or alter the grade of land without a permit, unless they are exempt from the provisions of this by-law (Part III).

Site alteration and top soil removal or the placing of fill is regulated through the issuance of a permit. Strict protective measures are to be adhered to as outlined in the by-law.

No person shall remove top soil from areas designated in the Official Plan as "Agricultural Reserve".

This by-law would also repeal Valley East By-law 92-21 and provides for no grandfathering requiring all individuals currently operating in the industry to comply with among other things, the minimum standards of the by-law with respect to siltation, storm water management and dust/soil control to protect abutting land owners and the municipal infrastructure.

Key Features of the By-law

Some of the key features of the draft by-law are outlined below:

Moratorium on Top Soil Stripping in "Agricultural Reserve"

The recently completed Official Plan adopted by Council has significantly reduced the amount of lands designated as "Agriculture Reserve" from approximately 70,000 hectares to roughly 13,500 hectares. These agriculturally significant lands are designated for protection by the Province. Furthermore, the preservation of our soil resource is key to increasing the amount of food produced locally, an objective highlighted in the EarthCare Sudbury Local Action Plan, which Council approved in 2003. Our agricultural soils are fundamental to the development of a more sustainable food strategy for Greater Sudbury. Therefore, staff is recommending that no further top soil removal be allowed in these areas.

Exemptions

A number of activities are exempted by the Municipal Act, 2001, and as such may not be regulated through the by-law. Additional exemptions are identified in the draft by-law as well. For example, the Aggregate

Resources Act allows exemptions with respect to the construction of pits and quarries, the Environmental Protection Act allows exemptions with respect to waste disposal sites, and the cutting and placing of fill is regulated under the Conservation Authorities Act. A number of other Acts allow for the altering of land for such purposes as the construction of roads, the clearing of drains and ditches, erosion control and a number of other activities involved in the development of municipal infrastructure where allowed. Certain exemptions have been identified by staff and generally exempt residential activities and the activities of the City and its local boards.

Criteria for a Permit

Those circumstances not exempt from the provisions of the TSRSA By-law would require a permit for site alteration.

Required Information

To obtain a permit, the TSRSA By-law requires that a Control Plan be prepared and sealed by a Professional Engineer showing details of the existing site and surrounding area, as well as the proposed alterations. The Control Plan would address removal/placement of materials in an orderly fashion. The plan would include protection of the surrounding environment including; storm water systems, water resources (streams, lakes, rivers), municipal roads and adjacent properties. Further, a Rehabilitation Plan would be required, including existing soils profile and geotechnical/agronomist consultant's input.

Environmental Protection

The issuance of a permit would be contingent upon the assurance that the placing or dumping of fill would not result in environmental or property damage, or the disruption of drainage patterns. This assurance comes from the applicant meeting a set of criteria as outlined in the TSRSA By-law, including an Environmental Security Deposit.

Erosion Control Plans

Erosion control during site alteration activity is essential. An erosion control plan would be required and would include information regarding locations of land disturbing activities, soils stockpiles, site management control measures, as well as a schedule of anticipated starting and completion dates for these activities.

Minimize Municipal Interference - Self Regulating Through Third Party Professional

The by-law provides for the design and site review of the site alteration through the design professional hired by the property owner. Weekly compliance reports providing details of adherence to the Control Plan minimizes the municipality's involvement. Non-compliance either as reported by the design professional or by way of a public complaint will result in an investigation by municipal officials and may result in revocation of permits and charges being laid by the municipality. Ultimate control for the issuance of permits remains with Council and decisions of staff are appealable to Council's Hearing Committee.

Enforcement & Liability

The site alteration agreement will include an Environmental Security Deposit to be lodged with the municipality that would be equal to the cost estimate for the work authorized by the permit. This is to guarantee that the work is completed in accordance with the permit. A list of standards is included in the By-law that carefully outlines the expectations for the work taking place under the permit.

A person that contravenes the provisions of such a by-law would be liable under the Municipal Act, 2001. For an individual's first conviction, a fine of up to \$10,000 can be levied, with a fine of up to \$25,000 for any subsequent convictions. If a corporation is convicted, the maximum fines are \$50,000 and \$100,000 respectively.

This is Council's first by-law prepared with provisions to charge the Officers and Directors of corporations deemed to be contraveners of the by-law.

Remediation

If fill has been placed in contravention of the By-law, the fill may be removed by the municipality at the owner's expense. The municipality may also order the person who has contravened the By-law to rehabilitate the land and/or restore the grade of the land to its original condition. The cost of reparation can be recovered through the municipal tax system, or by use of the permit holder's security deposit, if applicable.

Fees

Top soil removal and site alteration permit fees consists of 2 parts. Part one is a non-refundable processing fee. The second part is an environmental protection security fee (deposit or letter of credit) to ensure compliance with the by-law and is refundable if the work complies to the Control Plan.

Summary

Further to Council's resolution, municipal staff has sought the input of the public, industry and the agricultural community through public meetings. The consensus indicated that a new top soil removal and site alteration by-law encompassing the full Greater Sudbury land area was required. The by-law was prepared after consulting with a number of other Ontario municipalities such as Ottawa, Barrie, Niagara and Brampton on "best practice" principles. The proposed by-law was presented to Council's Agricultural & Top Soil Advisory Panel on November 3, 2008, and January 8, 2009, for review and input. It is now presented for your review based on the Panel's recommendation to move it forward for implementation.

Next Steps

This report and by-law, if accepted in principle on initial review by Council's Priorities Committee, will return to the Priorities Committee for acceptance only after a meeting is held by staff to receive feed back from the public, including the agricultural community and top soil producers.

This meeting would be advertised and scheduled for February, 2009, with an updated report and by-law returned to the Priorities Committee for a second review and decision. If acceptable, adoption of the Top Soil Removal and Site Alteration By-law by Council could occur as early as April, 2009.

Attachments

APPENDIX 'A'

**Recorded Minutes of Public Meetings
For the Top Soil Advisory Panel
June 26, 2006 &
July 25, 2006**

THE THIRD MEETING OF THE TOPSOIL COMMITTEE OF THE CITY OF GREATER SUDBURY

C-12
Tom Davies Square

Monday, June 26, 2006
Commencement: 7:35 p.m.

Chair

COUNCILLOR RON BRADLEY, IN THE CHAIR

Councillors

Councillor Dupuis

Staff

R. Norton, Drainage Engineer; B. Gutjahr, Manager of By-law Enforcement Services; P. Baskcomb, Manager of Community & Strategic Planning; G. Mazza, Director of Building Services/Chief Building Official; E. Labelle, Clerk Designate; CJ Caporale, Council Secretary

Others

Dr. G. Spiers, Chair in Environmental Monitoring Earth Sciences/Chemistry & Biochemistry/MIRARCO

Declarations of
Pecuniary Interest

None declared.

Opening Remarks

The Chair welcomed those present and introduced the Committee members. He advised that this meeting was being held in order to receive input from the topsoil producers on the proposed draft Topsoil By-law, which would be presented to Council for final approval.

Mr. Baskcomb explained that topsoil stripping would not be prohibited, but that the concerns of local residents regarding dust control, drainage, and rehabilitation would have to be addressed. He indicated that the Committee recognizes the challenges the producers face and would like to hear possible solutions.

The Chair asked if there was any person present who wished to address the Committee on this matter.

PUBLIC INPUT

Mr. Lionel Brosseau

Mr. Brosseau indicated that he has been in the topsoil business for forty years and property that was stripped twenty years ago has been rehabilitated. He stated that businesses who have not maintained their properties should be penalized and there should be controls in place. He indicated that topsoil is a required commodity and is used by the City of Greater Sudbury, INCO and the community in general.

Mr. Marc Lafreniere

Mr. Lafreniere indicated that producers in Valley East have permits that were issued under the By-law which applies to the former City of Valley East. He questioned their validity.

Mr. Norton advised that the Committee was looking for aspects of future control rather than past practices and is trying to implement regulations that are fair and equitable. The intent is to grandfather existing permits.

Mr. Don Theriault

Mr. Theriault indicated that when he sold his business, the supply of topsoil to the new owner for the first year was a condition in the Agreement of Purchase and Sale. If topsoil removal is prohibited, the new owner could go bankrupt.

Mr. Norm Belzile

Mr. Belzile asked the Committee if the proposed by-law would apply to sod farming?

Mr. Labelle indicated that the Municipal Act, 2001 states that a by-law respecting the removal of topsoil does not apply to the removal of topsoil as a part of sod-farming.

Ms. Gisele Labelle

Ms. Labelle indicated that once this by-law is implemented, the cost of assessing the lands will increase the cost of topsoil. She asked who would pay for those costs?

Mr. Lionel Brosseau

Mr. Brosseau stated that he could live with controls because there are those who do not abide by the rules.

Mr. Marc Lafreniere

Mr. Lafreniere stated that he has had permits for twenty years and has followed the requirements by restoring his properties when finished with them. There is land that has not been farmed for many years and will never be farmed. Will this by-law prevent the producers from buying more land?

Mr. Graeme Speirs

Dr. Spiers advised when land is stripped down too far, it can take centuries for it to rejuvenate. With controls in place and the land properly treated, rehabilitation is possible.

The Chair advised that the province has indicated that municipalities must start to protect their agricultural lands for the future.

Mr. Norm Belzile

Mr. Belzile asked that producers be supplied with copies of maps indicating where all Agricultural Reserve ("AR") lands are located.

Mr. Baskcomb advised that the maps are on the City's web site and copies can be picked up in the Planning Department.

Mr. Luc Houle

Mr. Houle asked if the properties that have existing permits would be grandfathered?

General Discussions

Mr. Norton indicated that their main concern is the condition of the land after it is stripped. Feedback from the industry on the type of controls is necessary and also, having a visual that the rehabilitation is occurring is important.

Dr. Spiers stated that gravel pits have regulations in place for reclamation. A good by-law could include a degree of reclamation by recommending that someone be assigned to inspect the stripped land to verify what must be done to rejuvenate it and if it can be reclaimed.

The Chair also stated that the by-law would provide for a hold-back or bond to be released once the land has been rehabilitated.

A discussion regarding the process of topsoil removal was provided whereas, the land is worked three years in advance prior to stripping. Trees, stumps, and brush are removed, land is plowed to prevent weeds from growing, and topsoil and garden loam is stockpiled during the fall and winter months for the spring. Soil analysis is done by Laurentian University and is provided to the buyer.

Mr. Dan Ranger

Mr. Dan Ranger suggested that the City assign one individual to monitor the rehabilitation of properties and penalize those who do not comply.

Regulating Topsoil Removal

Mr. Mazza indicated that the City does not want to over regulate the industry. He also indicated that the City does not want to burden the industry, but complaints have been received and must be addressed. Does the City regulate or does the industry regulate itself? He stated that because there are existing permits that were issued by the former City of Valley East, producers will have to supply documentation, indicating what the permit was for. Will these properties be grandfathered? Were there restrictions set out by Valley East? Were only certain parcels allowed to be stripped? The producers will have to supply this information. How does the City prove that you have the right to operate your business? Mr. Mazza indicated that the Committee and the producers need to work together to bring this by-law to a level that everyone can live with. He stated that the producers would be required to hire their own expert and police themselves.

Mr. Brosseau stated that properties should be visited or inspected once a year because most producers are following the proper procedures.

Regulating Topsoil
Removal
(continued)

Mr. Mazza stated that a process needs to be developed that allows the producer to continue topsoil removal but also has control mechanisms in place. He also stated that grandfathering is an issue as well as how this will be implemented.

Mr. Lafreniere advised that there are five to six farms which are currently being stripped and these should be grandfathered. He also stated that he has documentation indicating property descriptions. He advised that in the past Mr. Andre Houle from the City of Valley East would verify that the properties had been rehabilitated.

Mr. Mazza confirmed that if documentation is provided, the properties that were issued permits would be grandfathered.

Dr. Spiers stated that the best practice is to stipulate and to encourage the industry to monitor themselves. By policing themselves, the industry is protecting themselves.

Mr. Labelle asked the producers what the average cost was to rehabilitate properties per acre. This amount could be used as a deposit or bond.

Dr. Spiers stated that the objective of a bond is to cover the cost of rehabilitation if a business fails to meet its obligations.

Mr. Mazza stated that the by-law could have provisions stating the total amount of acres a company can work at one time.

Mr. Theriault suggested that if producers are regulated they should leave two inches of topsoil once land has been stripped, then policing would not be required.

Mr. Mazza advised that experts indicate that without six inches of topsoil, land can not be farmed. There are several areas to review such as what is proper rehabilitation? Would it encompass grass, trees, shrubs, etc and would they require different amounts of topsoil?

Dr. Spiers asked what process was used to rehabilitate property.

Mr. Lafreniere stated that the land is disk harrowed and reseeded at a cost of approximately \$250 to \$500 per acre.

Mr. Mazza stated that the idea is to let the industry regulate themselves with their own consultant, provide the proper documentation to the City in order that the City can inspect the property at a later date.

Closing Remarks

The Chair advised those present that once the draft by-law has been written, further input will be required in order to make any necessary changes. He also stated that new rules and regulations will be reviewed for the properties that are to be grandfathered.

Councillor Dupuis thanked everyone present for attending the meeting and providing their input.

Adjournment

2006-5 Dupuis-Bradley: That this meeting does now adjourn. Time: 9:03 p.m.

CARRIED

Councillor Ron Bradley, Chair

Eric Labelle, Clerk Designate

THE FOURTH MEETING OF THE TOPSOIL COMMITTEE OF THE CITY OF GREATER SUDBURY

C-12
Tom Davies Square

Tuesday, July 25, 2006
Commencement: 7:00 p.m.

Chair

COUNCILLOR RON BRADLEY, IN THE CHAIR

Councillors

Councillor Thomspen

Staff

R. Norton, Drainage Engineer; T.C. Wu, Senior Planner; G. Mazza, Director of Building Services/Chief Building Official; E. Labelle, Clerk Designate; CJ Caporale, Council Secretary

Others

Dr. G. Spiers, Chair in Environmental Monitoring Earth Sciences/Chemistry & Biochemistry/MIRARCO

Declarations of
Pecuniary Interest

None declared.

Opening Remarks

The Chair welcomed those present and introduced the Committee members. He advised that this meeting was being held in order to receive input from the agricultural community on the proposed regulation of topsoil practices, which would be presented to Council for final approval.

Mr. Mazza explained that topsoil stripping would not be prohibited, but that the concerns of local residents regarding dust control, drainage, and rehabilitation would have to be addressed. He indicated that the Committee recognizes issues that the agricultural community face and would like to hear possible solutions. Mr. Mazza advised those present that the Committee met with Topsoil producers and briefly outlined what their concerns were.

The Chair asked if there was any person present who wished to address the Committee on this matter.

PUBLIC INPUT

Mr. James Found

Mr. Found asked what would be included in the draft by-law? He indicated that dust control was the initial complaint. Mr. Found asked about past draft by-laws on this issue.

Mr. Labelle indicated that the next step would be to determine what conditions the agricultural community views as important. He stated that considerable effort would be required to prepare a by-law that is balanced and protects agricultural lands and is not too prohibitive for topsoil producers.

Draft By-Law

Mr. Mazza stated that because there are existing permits that were issued by the former City of Valley East, producers will have to supply documentation, indicating what the permit was for. Will these properties be grandfathered? Were there restrictions set out by Valley East? Were only certain parcels allowed to be stripped? The producers will have to supply this information. Mr. Mazza indicated that the Committee would have to strike a balance for everyone involved.

He indicated that he was waiting to receive input from other municipalities such as Ottawa, on how they are dealing with this issue. Various aspects would have to be addressed such as grandfathering, remediation, buffering, drainage, etc.

Mr. Labelle advised that from a legal point of view there were many aspects to address, would topsoil removal be restricted to one area of the city? How many reports would be required or how would the deposit be calculated?

Mr. Jean-Guy Bonin

Mr. Bonin questioned if the producers asked where they could remove topsoil?

Councillor Bradley stated that the producers indicated they would like to remove topsoil anywhere within the City of Greater Sudbury.

Mr. Don Blais

Mr. Blais commented that the agricultural community in Northern Ontario was small, and if farmers were not "kept alive, people could say good-bye to topsoil".

Mr. Norton stated that Topsoil Removal permits are currently being issued under the former City of Valley East by-law. He also stated that it has been difficult to find a by-law in Ontario that regulates topsoil removal. He indicated that the producers are in agreement with implementing a by-law that is fair.

Draft By-Law
(continued)

Mr. Found indicated that land could be rehabilitated in approximately three years and stated that fall rye, which grows fast, controls dust.

Mr. Norton stated that if a deposit was required from the producers, results would occur.

Mr. Mazza indicated that the draft by-law could set out a condition which would involve buffering between the property being stripped and the Agricultural Reserve (AR).

Mr. Blais suggested that if people were given an incentive such as a tax break for farmers or tax increase for producers, things may be different in the City.

Mr. Norton indicated that the City of Ottawa was assisting urbanites by providing water for their gardens.

Direction

The Committee directed staff to begin work on the draft by-law for Topsoil removal.

Closing Remarks

The Chair advised those present that once the draft by-law has been written, further input will be required in order to make any necessary changes.

The Chair thanked everyone present for attending the meeting and providing their input.

Next Meeting

The next meeting will be at the call of the Chair.

Adjournment

2006-6 Thompson-Bradley: That this meeting does now adjourn.
Time: 8:30 p.m.

CARRIED

Councillor Ron Bradley, Chair

Eric Labelle, Clerk Designate

APPENDIX 'B'

Draft Top Soil Removal Site Alteration By-law

BY-LAW 2009-XXX

**A BY-LAW OF THE CITY OF GREATER SUDBURY
TO REGULATE THE REMOVAL OF TOPSOIL, THE
PLACING OR DUMPING OF FILL, AND THE
ALTERATION OF GRADES OF LAND**

WHEREAS the City wishes to protect and preserve agricultural lands within its boundaries in accordance with its Official Plan;

AND WHEREAS the City wishes to protect bodies of water and adjoining lands that may be adversely affected by activities related to the removal of topsoil, placing or dumping of fill and/or the alteration of grades of land;

AND WHEREAS the City wishes to protect its residents and property owners from adverse effects related to the removal of topsoil, placing or dumping of fill and/or the alteration of grades of land;

AND WHEREAS Section 142 of the *Municipal Act, 2001*, S.O. 2001, c.25, allows municipalities to prohibit or regulate the placing or dumping of fill, to prohibit or regulate the removal of topsoil, to prohibit or regulate the alteration of the grade of land, to require that a permit be obtained for the placing or dumping of fill, the removal of topsoil, or the alteration of the grade of land, and to impose conditions to such permits;

**NOW THEREFORE THE COUNCIL OF THE CITY OF GREATER SUDBURY
HEREBY ENACTS AS FOLLOWS:**

PART I – SHORT TITLE

1. This By-law shall be known as the Site Alteration By-law.

PART II - INTERPRETATION

2. (1) In this By-law,

“Adequate Performance” of a Control Plan means that:

1. All stormwater or snowmelt on a Site passes through a Final Control Device before reaching any Protected Area;

2. Stormwater or snowmelt downgradient of a Final Control Device contains less than 100 mg/l of suspended solids, except during or within thirty minutes of precipitation of more than 12 ml in one hour, and
3. There is no apparent sedimentation in a Protected Area;

"Alteration" means changes in elevation of 25mm or more from Existing Grade or Finished Grade resulting from the Placing or Dumping of Fill, the Removal of Topsoil or any other action that alters the Grade of land;

"Body of water" includes any brook, creek, stream, river, lake, pond, waterway, and water course, canal, or other flowing or standing water;

"Control Plan" means a Plan to control erosion and sedimentation prepared and implemented by a Professional to comply with this By-law and the Control Plan Requirements attached at Schedule "B";

"Director" means the Director of Building Services/Chief Building Official of the City of Greater Sudbury or his or her designates;

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

"Fill" means any type of material capable of being removed from or deposited on lands, such as soil, topsoil, stone, sod, turf, concrete, and asphalt either singly or in combination as acceptable to the Director;

"Final Control Device" means the most downgradient erosion or sedimentation control device between a Site and a Protected Area;

"Grade" means the elevation of the ground surface and shall be more particularly defined as follows:

- (i) "Existing Grade" means the elevation of the existing ground surface of the Land or Site upon which Placing or Dumping of Fill, Alteration of the Grade or Removal of Topsoil is proposed and of abutting ground surface up to three

metres wide surrounding such Land or Site, except that where such activity has occurred in contravention of this By-Law, Existing Grade shall mean the ground surface of such Land or Site as it existed prior to the said activity;

(ii) "Finished Grade" means the approved elevation of ground surface of Land or a Site upon which Fill has been placed or dumped, the Grade altered, or Topsoil removed, in accordance with this By-Law;

(iii) "Proposed Grade" means the proposed elevation of ground surface of the Land or Site upon which fill is proposed to be placed or dumped, the grade altered or topsoil removed;

"Land" or "Property" means real property within the boundaries of the City of Greater Sudbury;

"Owner" includes any person, partnership, organization or corporation who or which is the registered owner of Land;

"Permit" means an authorization granted in writing by the Director pursuant to this By-law, to perform a Site Alteration on a defined Site and subject to the conditions in Schedule "C" attached to this By-law and such other conditions as the Director may impose;

"Placing or Dumping" means the depositing of Fill in a location other than where the Fill was obtained and includes the movement and depositing of Fill from one location on a Property or Site to another location on the same or another Property or Site;

"Professional" means a professional engineer who is licensed to practice in the Province of Ontario, and who is retained by an applicant to prepare and implement a Control Plan;

"Protected Area" includes a body of water, an environmental protection area, a designated protection zone and any area outside the Land or Site on which Site Alteration is occurring, has occurred or will occur;

"Removal of Topsoil" means the removal of Topsoil from Land or a Site or from any part thereof and includes the movement of Topsoil from one Property or Site to another as well the movement of Topsoil to another location on the same Property or Site;

"Site" means real property where Site Alteration is occurring, has occurred or will occur;

"Site Alteration" means one or more of the following activities in relation to a Property:

1. placing or dumping fill,
2. removal of topsoil, or
3. alteration of the grade

"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.

(2) References in this By-law to words in the singular shall be deemed to include the plural.

PART III - EXEMPTIONS

3. This By-law does not apply to:

- (1) activities or matters undertaken by the City of Greater Sudbury or a local board of the City of Greater Sudbury;
- (2) the Placing or Dumping of Fill, Removal of Topsoil or Alteration of the Grade of Land imposed after December 31, 2002 as a condition to the approval of a site plan, a plan of subdivision or a consent under section

41, 51 or 53, respectively, of the *Planning Act*, R.S.O. 1990, c. P.13, as amended, or as a requirement of a site plan agreement or subdivision agreement entered into under those sections;

- (3) the Placing or Dumping of Fill, Removal of Topsoil or Alteration of the Grade of Land 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 that regulation;
- (4) the Placing or Dumping of Fill, Removal of Topsoil or Alteration of the Grade of Land undertaken by a transmitter or distributor, as those terms are defined in Section 2 of the *Electricity Act*, 1998, S.O. 1998, c. 15, as amended, for the purpose of constructing and maintaining a transmission system or a distribution system, as those terms are defined in that Section;
- (5) the Placing or Dumping of Fill, Removal of Topsoil or Alteration of the Grade of Land undertaken on land described in a licence for a pit or quarry or a permit for a wayside pit or wayside quarry issued under the *Aggregate Resources Act*, R.S.O. 1990, c. A.8, as amended;
- (6) the Placing or Dumping of Fill, Removal of Topsoil or Alteration of the Grade of Land undertaken on Land in order to lawfully establish and operate or enlarge any pit or quarry on Land,
 - (i) that has not been designated under the *Aggregate Resources Act* or a predecessor of that Act, and
 - (ii) on which a pit or quarry is a permitted Land use under a By-law passed under section 34 of the *Planning Act*;

- (7) the Placing or Dumping of Fill, Removal of Topsoil or Alteration of the Grade of land undertaken as an incidental part of drain construction under the *Drainage Act*, R.S.O. 1990, c. D.17, as amended or the *Tile Drainage Act*, R.S.O. 1990, c. T.8, as amended;
- (8) the Removal of Topsoil as an incidental part of a normal agricultural practice including such removal as an incidental part of sod-farming, greenhouse operations and nurseries for horticultural products but does not apply to the Removal of Topsoil for sale, exchange or other disposition;
- (9) the Removal of Topsoil as an incidental part of the construction, renovation, replacement or demolition of a basement, foundation or septic bed for residential purposes;
- (10) any Site Alteration where Fill is placed or dumped on lands for the purpose of lawn dressing, constructing a fence, pool or other accessory structure, landscaping or adding to flower beds or vegetable gardens, provided that the Existing Grade elevation of the land is not increased by more than 600mm and there is no Alteration to the volume, direction, intensity or form of storm water run-off to adjacent properties and provided that where the Land or Site are located in a plan of subdivision the approved grading plan is maintained;
- (11) any Site Alteration as an incidental part of the construction of any form of underground service where the Fill or Topsoil is removed and properly held or stored for subsequent replacement; or,
- (12) any approved Site Alteration undertaken by a Permit Holder in relation to a Road Occupancy Permit issued by the City.

4. If a regulation is made under section 28 of the *Conservation Authorities Act*, R.S.O. 1990, c. C.27, as amended, respecting the Placing or Dumping of Fill, Removal of Topsoil or Alteration of the Grade of Land in any area of the City of Greater Sudbury, this By-law is of no effect in respect of that area.

PART IV – SITE ALTERATION

Application

5. No person shall perform any Site Alteration on any Land or Site, or, being the Owner of the Land or Site, cause or permit any Site Alteration from such Land or Site, unless the person or Site Alteration is exempt from the provisions of this By-Law or a Permit has been obtained in compliance with this By-law.
6. No permit shall be issued for the Removal of Topsoil from any Site being Land designated as "Agricultural Reserve" by the City of Greater Sudbury Official Plan which Lands are identified in Schedule "D" to this By-law.

Permits and Issuance of Permits

7. All applications for Site Alteration Permits shall be made to the Director who:
- (1) shall receive and process all applications for Permits and renewal of Permits required under this By-law;
 - (2) shall administer the issuance of Permits in accordance with the provisions of this By-law;
 - (3) shall sign all Permits issued pursuant to this By-law;
 - (4) shall maintain and keep records of all applications received, all Permits issued and renewed, any suspension or revocation of a Permit, and of any other status change to a Permit issued under this By-law;
 - (5) shall enforce this By-law together with the Bylaw Enforcement Officers for the City of Greater Sudbury; and,

(6) shall generally perform all functions incidental to and necessary for the due administration and enforcement of this By-law.

8. All applications for Permits shall include the following and shall be filed with the Director:

- (1) a signed and completed application by the Owner of the land comprising the Site in the general form attached as Schedule "A" to this By-law, which form may be amended from time to time by the Director;
- (2) the fixed fee for a Site Alteration Permit as established in Section 12 of this By-law and as amended from time to time by Council;
- (3) a current copy or copies of the parcel registry showing the legal owner of the Site;
- (4) a Control Plan, the requirements of which are set out in Schedule "B" of this By-law;
- (5) security in a form and amount to be determined in accordance with sections 25 and 26 of this By-law, to secure performance of the Applicant's obligations under this By-law and any Permit that is issued; and,
- (6) a certificate by a qualified Professional, signed within 30 days of the date of the Application, that:

1. The Control Plan complies with the Control Plan Requirements attached as Schedule "B" of this By-law and will achieve Adequate Performance;

2. The amount of security referred to in Section 25 of this By-law or the higher amount indicated in the Control Plan by the Professional is sufficient to implement the Control Plan and rehabilitate the Site;

3. The Professional will notify the Director in writing within one business day if the Professional ceases to be retained to monitor and enforce compliance with the Control Plan; and,
4. Until the Professional gives such notice, the Professional will monitor and enforce compliance with the Control Plan until the Site is rehabilitated; and
5. An undertaking signed by the Owner that the proposed Site Alteration will be conducted in accordance with the Control Plan and this By-law.
9. An applicant shall not submit or cause or permit an Application for a Permit to be submitted to the City that is misleading or contains false information.
10. Where it is discovered or revealed that the holder of a Permit issued under this By-law has provided misleading or false information on the Application for a Permit, as determined by the Director, the said Permit shall be revoked by the Director and the Permit Holder shall forthwith cease all Site Alteration which was the subject of the revoked Permit.
11. The Director or his or her designates shall, subject to the provisions of this By-law, upon receipt of the application referred to above, make or cause to be made all investigations which he or she deems necessary.
12. Site Alteration Permit fees shall be the greater of \$500 or \$10 per hectare of Site Alteration area and the same fees shall apply to the new area for Site Alteration where an Applicant wishes to extend an existing Permit to a larger area than initially applied for.
13. The amount of \$250 is hereby fixed as an application fee for the renewal or transfer of an existing Site Alteration Permit to a new Owner of the Land or Site using a previously approved Control Plan.

14. A Permit issued pursuant to this By-law shall be valid for a period of twelve months from the date of issuance.

15. The Director shall issue a Site Alteration Permit when:

- (1) the Director is satisfied that the Application and attached documentation are complete and in accordance with this By-law;
- (2) the Applicant has provided the security required by sections 25 and 26 of this By-law;
- (3) the Director is satisfied that the Proposed Grade and resulting drainage pattern, the type of Fill proposed to be used, if any, and the proposed method of Placing and Dumping of Fill, Alteration of the Grade, or Removal of Topsoil, are all in accordance with the City of Greater Sudbury's standards and proper engineering and environmental standards and practices;
- (4) the Director is satisfied that the Site will be rehabilitated to a condition which is substantially similar to or improved from the condition of the Site prior to the undertaking of the work contemplated by the Site Alteration Permit; and
- (5) all other concerns of the Director have been satisfied.

16. All Permits issued pursuant to this By-law shall be subject to the terms and conditions set out in Schedule "C" to this By-law.

17. Notwithstanding the issuance of a Permit pursuant to this By-law, an Applicant shall comply with all other applicable legislation.

18. No person shall enjoy a vested right in the continuance of a Permit and upon the issue, renewal, transfer, cancellation or suspension thereof, the Permit shall be the property of the City of Greater Sudbury.

19. No Permit shall be transferred to another person, or be valid at any Site except as indicated thereon, except with the written consent of the Director acting on the authority of Council.

20. A Site Alteration Permit or a copy thereof shall be posted in a visible location on the Site at all times during which the Permit is valid and in effect.

Refusal to Issue Permit

21. Where the Director refuses to issue a Site Alteration Permit, the Applicant shall be informed in writing of the refusal by the Director. The Director may reconsider the Application if additional information or documentation required by the Director is submitted by the Applicant.

Appeal

22. An applicant for a Permit under this By-law may appeal a refusal to issue a Permit, a condition in a Permit, a failure to make a decision on an Application for a Permit or a revocation of a Permit to the Hearing Committee of the Council of the City of Greater Sudbury which shall have all the powers of the Director pursuant to this By-law. The decision of the Committee shall be final.

23. Notwithstanding any other provisions of this By-law, the Director may waive the requirement for a Control Plan or certain requirements thereof and/or may reduce the application or security fee for a Site Alteration Permit in appropriate cases after taking into consideration the cost of the proposed works, the anticipated impact on any protected area, and the use of the Site.

24. No person shall fail to comply with the Control Plan Requirements set out in Schedule "B", the Permit Conditions set out in Schedule "C", any other condition of a Permit imposed by the Director or with any other requirement of this By-law.

Security

25. An applicant for a Site Alteration Permit shall provide security in the amount of \$500 per hectare. The Director may, however, prior to the issuance of a Permit under this By-law, require the Applicant to provide additional security for the Applicant's obligations under this By-law and any Permit issued if the Professional retained by the Applicant is of the opinion that a higher amount would be required to properly rehabilitate the Site in accordance with proper engineering standards and practice, this By-law, the Control Plan and the terms and conditions of the Permit.

26. Security determined in accordance with Section 25 shall be provided by way of an irrevocable letter of credit, certified cheque, or cash.

27. Where the Permit Holder has complied with all of the requirements of this By-law to the satisfaction of the Director and where the Professional has certified that the Control Plan has been fully implemented and achieves Adequate Performance, the City shall release the Permit Holder's security.

Enforcement

28. Every person obtaining a Permit under this By-law when so requested by the Director or his or her designates, a By-law Enforcement Officer, or by any other person authorized by Council, shall produce the Permit for inspection.

29. A Site Alteration Permit may be revoked by the Director under the following circumstances:

- (2) if it was obtained on mistaken, false or incorrect information;
- (3) if it was issued in error;

- (4) if the Permit Holder requests in writing that it be revoked; or,
- (5) if a Permit Holder fails to comply with the provisions of this By-law or the conditions of any Permit.

30. The Director or his or her designates, a By-law Enforcement Officer or any other person authorized by Council may at any reasonable time enter and inspect any Land to determine whether this By-law or any Permit issued thereunder is being complied with, but this section does not allow the entry into any building.

31. No person shall obstruct the Director or his or her designates, a By-law Enforcement Officer or any other person authorized by Council with respect to the administration and enforcement of this By-law.

Order to Discontinue Activity

32. If the Director is satisfied that a contravention of this By-law or Permit issued thereunder has occurred, the Director may make an Order requiring the Owner of the Land or the person who caused or permitted the Site Alteration in contravention of the By-law or permit to discontinue the activity and the Director shall set out the municipal address or the legal description of the Land and reasonable particulars of the contravention and the period within which there must be compliance.

Work Order

33. If the Director is satisfied that a contravention of this By-law or a Permit issued thereunder has occurred, the Director may make an Order requiring work to be done to correct the contravention and the order shall set out the municipal address or the legal description of the Land, reasonable particulars of the contravention and of the work to be done and the period within such there must be compliance with the Order and a notice stating that if the work is not done in compliance with the Order within the period,

the City may have the work done at the expense of the Owner and added to the tax roll for the Land, to be collected as taxes.

34. If the work required by an Order set out above is not done within the specified period, the Director is hereby authorized to perform the work at the Owners' expense and to enter upon the Land for this purpose, either personally or by way of contractors, and to use the security provided, if applicable, and to transfer the cost, or remaining cost of such work to the tax roll for the Land.

35. The costs set out above incurred by the City shall include interest accrued to the date payment is made at the rate of 15% per annum, and may include a 10% administration fee, if the work is performed by the City for someone under the City's direction.

36. Before the City enters on Land to perform the work set out above, the Order shall be served upon the Owner of the Land personally or by prepaid registered mail to the last known address of the Owner of the Land, or as set out in any Permit application.

37. If the City is unable to effect service as set out above, the Director may place a placard containing the terms of the order in a conspicuous place on the Land and may enter upon the Land for this purpose.

Penalty

38. Any person who contravenes this By-law, a condition of a Permit or an Order as set out herein is guilty of an offence and is liable:

- (1) on a first conviction to a fine of not more than \$10,000; and
- (2) on any subsequent conviction to a fine of not more than \$25,000.

39. Despite Section 38 above, where the person convicted is a corporation, the maximum fines shall be \$50,000 on a first conviction and \$100,000 on any subsequent conviction.

40. A director or officer of a corporation who knowingly concurs in the contravention of this By-law, a condition of a Permit or an Order as set out in this By-law is guilty of an offence.

41. Any offences pursuant to this By-law shall be prosecuted in accordance with the Provincial Offences Act, R.S.O. 1990, c. P. 33, as amended from time to time.

PART V - GENERAL

42. (1) By-Law No. 82-141 of the former Regional Municipality of Sudbury and By-Law No. 92-21 of the former Town of Valley East are hereby repealed.

(2) The repeal of By-laws by this Section shall not be deemed to include any opinion by the City as to those By-laws.

(3) The repeal of By-laws by this Section does not affect any offence committed against any By-law so repealed or any penalty or forfeiture or punishment incurred in respect thereof;

(4) The repeal of By-laws by this Section does not affect any investigation, legal proceeding or remedy in respect of such privilege, obligation, liability, penalty, forfeiture or punishment.

(5) Any valid permit issued pursuant to By-law 92-21 of the former Town of Valley East shall expire on the date of passage of this By-law.

43. Schedule "A" to "D" attached hereto form a part of this By-law.

44. This By-law shall come into force and take effect on the date it is adopted by Council.

READ A FIRST AND SECOND TIME IN OPEN COUNCIL this day of
, 2009.

Mayor

Clerk

READ A THIRD TIME AND FINALLY ENACTED AND PASSED IN OPEN
COUNCIL this day of , 2009

Mayor

Clerk

DRAFT FOR DISCUSSION PURPOSES

SCHEDULE "A"
To By-Law 2009-XX of the City of Greater Sudbury

Page 1 of 2

File: _____

The City of Greater Sudbury
Application For a Site Alteration Permit
By-law 2009 _____

New Permit _____	Regular Permit _____
Renewal _____	
Transfer _____	

Permit Is To: Place or Dump Fill _____
Remove Topsoil _____
Alter the Grade of Land _____

Site Location: Lot # _____ Plan # _____
Address _____ Size: _____
Hectares _____

Applicant:

Registered Owner: _____
Contact Person: _____
Address: _____
Telephone: _____ Fax: _____
Email Address: _____
Contractor: _____
Name: _____
Address: _____
Telephone: _____ Residence: _____ Business: _____
After Hours Contact Telephone No: _____

Engineer:

Name: _____
Firm: _____
Address: _____
Telephone: _____ Fax: _____
Email Address: _____
After Hours Contact Telephone No: _____

Project Schedule:

Start Date (Y/M/D): _____ Completion Date (Y/M/D) _____

Included With This Application Are:

(a) Control Plan	
(b) Calculation of the Annual Cost of Implementing the Control Plan, plus rehabilitating the Site.	
(c) Engineer's Certificate	
(d) Application Processing Fee \$ _____	
(e) Environmental Protection Deposit \$ _____	
(f) If this is an application to transfer or renew an existing Permit, a copy of that Permit.	

SCHEDULE "A"
To By-Law 2009-XX of the City of Greater Sudbury

Page 2 of 2

Applicant's Certificate

I, _____, declare that:

- (a) I am the Owner of the Site,
- (b) I have read By-Law 2009 _____ and agree to comply with it,
- (c) I understand that I am responsible to prevent erosion and sedimentation from or at the Site,
- (d) The information contained in this Application and the supporting documents is complete and accurate,
- (e) The proposed Site Alteration will be conducted in accordance with the Control Plan,
- (f) If this is an application for renewal, to date the Site Alteration has been conducted in accordance with the Control Plan, and has complied with the Performance Measure, and
- (g) I authorize the Director, his or her designates and the City's By-law Enforcement Officers to enter the Site to determine compliance with the Control Plan or to perform any work necessary to bring the Site into compliance with the Control Plan.

Signature of Owner

Copy to: _____
Applicant
City of Greater Sudbury Development Services Department

City of Greater Sudbury Acknowledgement

Signature

Print Name

Date

SCHEDULE "B"

To By-Law 2009-xxx of the City of Greater Sudbury

Control Plan Requirements

The following requirements shall apply to all Control Plans prepared pursuant to this By-law:

Code for the Design and Maintenance of Erosion and Sedimentation Control Measures

1. Introduction

- 1.1 This Code sets out minimum standards for erosion and sedimentation control in a Control Plan.

2. Definitions

- 2.1 All capitalized terms have the meaning set out in By-Law 2009 _____.

3. General Requirements

- 3.1 Every control measure must meet or exceed the specifications set out in this Code and shown on the drawings attached as Appendix A. The Owner shall install and maintain all control measures set out in the Control Plan.
- 3.2 A Control Plan shall include a Monitoring and Inspection Plan to ensure that the Control Plan achieves Adequate Performance at all times. The Professional shall implement the Monitoring and Inspection Plan. A Control Plan shall be enhanced as required to achieve Adequate Performance. Any control measure that fails to achieve Adequate Performance shall be promptly repaired, replaced or upgraded as required to achieve Adequate Performance.
- 3.3 Any sedimentation or erosion damage to adjoining surfaces and watercourses resulting from the Site Alteration must be repaired forthwith.

4. Pre-Construction Information

- 4.1 The Control Plan shall include the following descriptive information with respect to the pre-construction state of the Site:
- (a) A 1:2000 scale Site map and key map or agreed to by the Director.
 - (b) Flood susceptibility information, including:

SCHEDULE "B"

To By-Law 2009-xxx of the City of Greater Sudbury

- i latest flood plain mappings supplied or agreed to by the Nickel District Conservation Authority (NDCA);
 - ii a Regional Storm Flood Line; and
 - iii Nickel District Conservation Authority Fill Regulation lines
- (c) Detailed drainage information, including:
- i existing storm water drainage;
 - ii existing drainage areas that extend beyond the Site property line so as to prove no adverse affect to adjoining properties;
 - iii natural drainage channels on Site;
 - iv natural drainage channels within 30 metres of the Site boundary; and
 - v the estimated runoff volumes and times of concentration of the drainage areas – based upon 12 mm/hr storm;
- (d) Information about receiving water sensitivity, including:
- i Preconstruction water quality including total phosphorous and total dissolved solids
 - ii cold water fishery, and
 - iii Areas of Natural and Scientific Interest (ANSI)
- (e) The location of all water courses and bodies of water on and within 30 metres of the boundaries of the Site;
- (f) Overland flow paths and identification of flow concentration zones that affects the Site including those that originate off-Site;
- (g) Detailed mapping of the soil presently on Site, including:
- i identification of erosion susceptible soils,
 - ii location of main soil types
 - iii exploratory soil borings and their logs prepared by a Engineer and/or a licensed Agrologist qualified in soil identification and characterization;
- (h) Location and type of existing vegetative cover;

5. Site Alteration Activities

5.1 The Control Plan shall include the following information relating to the proposed Site Alteration.

- (a) A detailed description of the location and dimensions of all proposed Site Alteration activities.
- (b) A land alteration sequencing Plan, setting out;
 - i timing of construction activities;

SCHEDULE "B"

To By-Law 2009-xxx of the City of Greater Sudbury

- ii sequencing of installation and removal of all control measures; and
 - iii measures taken to minimize exposed areas.
- (c) The location and dimensions of all temporary soil or dirt stockpiles; and
 - (d) The location of designated haul routes and construction access points to the Site.
 - (e) The location of all erosion and sedimentation control measures to be installed on the Site.
 - (f) The location of all main haul routes on site.
 - (g) The field location of any utilities on site – sewer/water/gas/hydro/Phone/Cable TV.
 - (h) Any utility requirements regarding utility crossings.

6. Performance of Control Plan

- 6.1 The Control Plan shall be designed and implemented to achieve Adequate Performance at all times.
- 6.2 Every Control Plan shall specify which erosion and sedimentation control devices and techniques should be used to achieve the performance measure, and shall specify the location, dimensions, design details and design calculations of all proposed erosion and sediment measures.
- 6.3 Any erosion and sedimentation control device or technique that is to be used must meet the minimum standards set out in Section 7 of this Code.
- 6.4 All erosion and sedimentation control devices and techniques identified in an approved Control Plan must be installed prior to any upgradient Site Alteration.
- 6.5 An up-to-date copy of the Control Plan, as well as a record of all inspections conducted under the Monitoring and Inspection Plan, must be at all times kept on site.

7. Standards for Erosion and Sedimentation Control Devices and Techniques

7.1 General

All Site Alterations shall be conducted in a phased manner whenever possible, to minimize the area of the Site that has bare soil exposed at any one time.

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To By-Law 2009-xxx of the City of Greater Sudbury

7.2 Temporary Sediment Control Ponds ("Ponds")

- (a) Ponds must be installed prior to upgradient Site Alteration at all Sites greater than 5 hectares in gross area under construction.
- (b) Ponds shall be located at one or more points as required to intercept runoff from the entire disturbed area.
- (c) Where it is not physically possible to place Ponds that will capture all of the runoff from the entire disturbed area,
 - i the reasons for the failure must be documented in the Control Plan
 - ii the Plan must include equivalent or better sediment control measures that will achieve Adequate Performance.
- (d) A Pond shall consist of:
 - i a permanent pool to contain accumulated sediment and post-storm waters;
 - ii a water quality treatment volume (Water Quality Treatment Volume) that allows settlement of suspended sediment from storms; and
 - iii a forebay to quiet incoming flow if the construction project is anticipated to take place over more than one year.
- (e) Water Quality Treatment Volumes (or pond active storage volumes) shall be calculated based on the proposed ultimate development area to a minimum volume standard as per the current requirements of the City, Ministry of the Environment and the Nickel District Conservation Authority.
- (f) Outlet works shall be designed to release storage volumes gradually over a 24 hour period.
- (g) Where a forebay is required pursuant to 7 (d) (iii), it shall:
 - i be sized to accommodate 20 percent of the Water Quality Treatment Volume;
 - ii incorporate sediment depth indicators;
 - iii have a stable bottom to allow mechanical clean out; and
 - iv allow access to loaders or other heavy equipment to clean it out.
- (h) The Pond shall incorporate maintenance benchmarks such as marked posts to indicate sediment depth.
- (i) The Pond shall be cleaned out when the removal efficiency has been reduced by 5% that is when 30% of the permanent pool volume has become filled with sediment.

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To By-Law 2009-xxx of the City of Greater Sudbury

- (j) The Pond outlet shall be through a perforated riser system.
- (k) The permanent pool shall:
 - i contain at least 50% of the Water Quality Treatment Volume;
 - ii be a minimum of 0.6 metres in depth; and
 - iii not exceed 2.4 metres in depth
- (l) The transition from the permanent pool to the Water Quality Treatment Volume shall be benched to prevent internal Pond erosion and to allow equipment access to clean out the permanent pool.

7.3 Silt Fences

- (a) Every silt fence shall be:
 - i aligned with Site contours to prevent the development of high water velocities that cause soil erosion.
 - ii A minimum height of 900 mm.
 - iii Constructed of suitable woven or non-woven permeable geotextile fabric fastened with wire fasteners to page wire fencing or acceptable equivalent. Fabric shall be placed on the upslope side and a minimum of 300 mm of the fabric shall be toed into the ground to a minimum depth of 150 mm.
 - iv Supported with steel T bar fence posts with a separation distance of no more than 2.5 metres.
 - v Accompanied by a vegetive buffer strip as described in 7.4.
 - vi Free of deterioration due to physical damage or ultraviolet breakdown.
 - vii Cleared of sediment when sediment depth reaches 150 mm at the base of the fence.

7.4 Buffer Strips

- (a) Vegetative Buffer Strips shall:
 - i Be provided between the Site Alteration and every downgradient protected area.
 - ii Be protected from upgradient erosion by silt fences as described in 7.3.
 - iii Consist of established vegetation that is growing whenever possible on undisturbed soil.
 - iv Be a minimum of 3 m wide between the perimeter of the property and a disturbed area and a minimum of 15 metres wide between surface water and a disturbed area.
- (b) Non Vegetative Buffer Strips shall be installed where there is not a minimum undisturbed area of established vegetation downgradient of the Site Alteration. They shall:

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- i Be a minimum of 2 m wide between the perimeter of the property and a disturbed area and a minimum of 15 metres wide between surface water and a disturbed area.
- ii Consist of a second silt fence no closer than 1 metre to the primary silt fence, as described in 7.3.
- iii Provide space for access for clean out of trapped sediment and repair of the fence.

7.5 Channel Low Point Protection

(a) Channel Low Point Protection Devices shall be:

- i Constructed in channels that will contain concentrated flows during storm events.
- ii Constructed so that the crest of the downstream device is at the same elevation as the downstream base of the device further upstream.
- iii Constructed of 100 mm to 150 mm clear crushed limestone with a downstream slope not to exceed 1 vertical in 4 horizontal and an upstream slope not to exceed 1 vertical in 1.5 horizontal.
- iv Constructed with a 2.5 metre long excavated sediment trap approximately 600 mm in depth at the upstream face.
- v Constructed with a non-woven geotextile on the upstream face which is covered with 150 mm of 50 mm minimum diameter clear stone and which extends 300 mm or more downstream along the top of the device.
- vi Cleared of all accumulated sediment as soon as sediment has accumulated to a depth greater than 50 percent of the upstream sediment trap.

7.6 Construction Access Mats

(a) Construction Access Mats shall be installed at all exits from the Site, and shall be designed and maintained to remove most of the sediment accumulated on vehicle tires.

(b) Construction Access Mats shall:

- i Be constructed prior to any other Site Alteration
- ii Be constructed of 300 mm of 100 mm to 200 mm quarry stone placed on a geotextile material suitable for allowing ex-filtration of water and preventing the quarry stone from becoming contaminated with the substrate soil.
- iii Be a minimum of 8 m in width and extend a minimum of 30 m onto the Site.
- iv Be flanked by silt fences and vegetative buffers as specified in Section 7.3 and 7.4 from the property line to the start of on-Site roadways.

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7.7 Topsoil and Spoil Pile Management

- (a) Topsoil and spoil piles shall:
 - i Not be constructed in low areas where water may accumulate.
 - ii Be surrounded with one or more silt fences to prevent sediment runoff during storms.
 - iii Piles containing more than 100 m3 of material shall be a minimum of 15 metres from a roadway or channel.
- (b) If topsoil or dirt storage piles are to be left in place for more than 60 days, they shall be stabilized by mulching, vegetative cover, tarps or other equivalent means.

7.8 Site Dewatering:

- (a) Effluent from Site dewatering operations must not discharge directly into receiving bodies of water or streams;
- (b) Water pumped from the Site shall be treated by control devices such as sediment control pond, temporary sedimentation pond, grit chambers, sand filters, upflow chambers, swirl concentrators or other appropriate controls, and must not contain particles more than 40 microns in size, or more than 100 mg/L of suspended solids.

7.9 Drain Inlet and Catchbasin Protection

- (a) All potentially affected storm drain inlets and catchbasins shall be protected with filter fabric or equivalent barriers, as a short term temporary sediment reduction measure.
- (b) Filter cloth protection may be used over the catchbasin inlet where ponding of water will not occur and where traffic will not affect the filter cloth.
- (c) In all other cases, catchbasin inserts shall be used constructed of filter cloth with or without a metal support structure.

7.10 Runoff Control

- (a) Drainage courses from adjacent areas to remain generally undisturbed throughout the site.

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To By-Law 2009-xxx of the City of Greater Sudbury

(b) Concentrated runoff from adjacent areas passing through the Site shall be diverted around disturbed areas. If this is not possible, runoff shall be directed into armoured channels with appropriate low point protection per Section 7.5, and shall empty into a storm water management pond prior to discharge. The channel shall be protected from receiving on-Site erosion by placement of silt fencing along its perimeter.

(b) Runoff from the entire disturbed area on the Site shall be controlled as follows:

- i. All disturbed ground left inactive shall be promptly stabilized by seeding, sodding, mulching or covering, or other control measure. The maximum period of inactivity shall be at the discretion of the Professional but shall not exceed 60 days;
- ii. For Sites without Sediment Control Ponds per Section 7.2, sediment control fences and cut-off swales/channels or equivalent control measures shall be placed along all downgradient boundaries of the Site;
- iii. For Sites adjacent to existing residential areas, a fence and a cut-off swale/channel shall be placed around the entire perimeter of the Site to prevent drainage onto private lands. A fifteen (15) metre wide buffer strip and/or sediment control fence shall be provided along the perimeter of the downgradient boundaries of the Site.

8. Stabilization and Rehabilitation

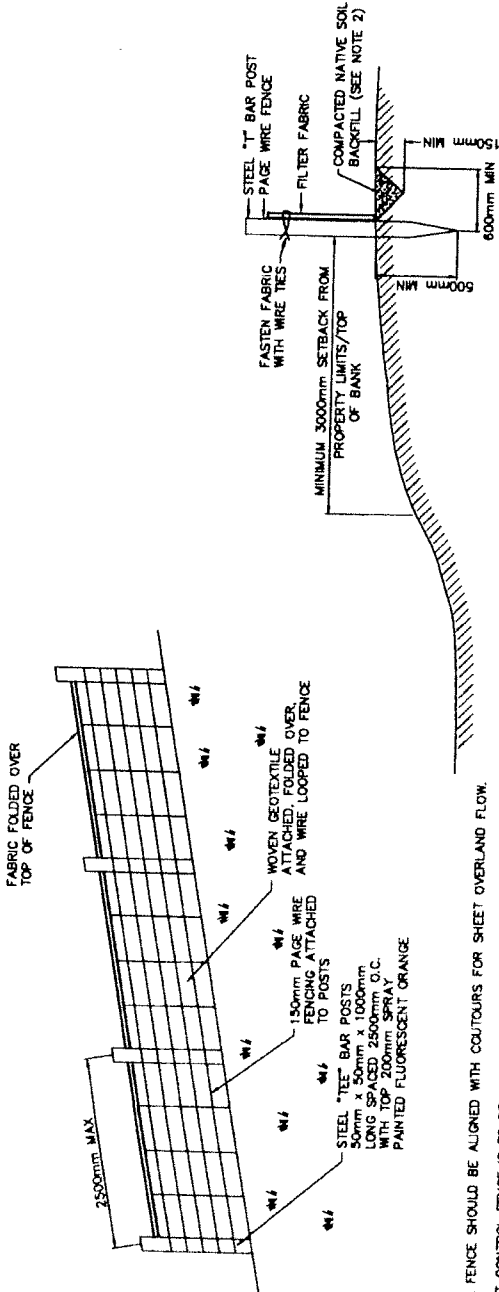
8.1 The Control Plan shall specify how the Site will be rehabilitated and stabilized, and how the Professional will determine when the Site is sufficiently stable that erosion and sedimentation control measures are no longer required.

9. Contingency Plan

9.1 The Control Plan shall include a contingency Plan for repair, replacement and upgrading of control measures as required to achieve Adequate Performance at all times.

9.2 If an amendment of the Plan becomes necessary to achieve Adequate Performance, the Professional shall forthwith update the Control Plan and notify the City of the updates in writing.

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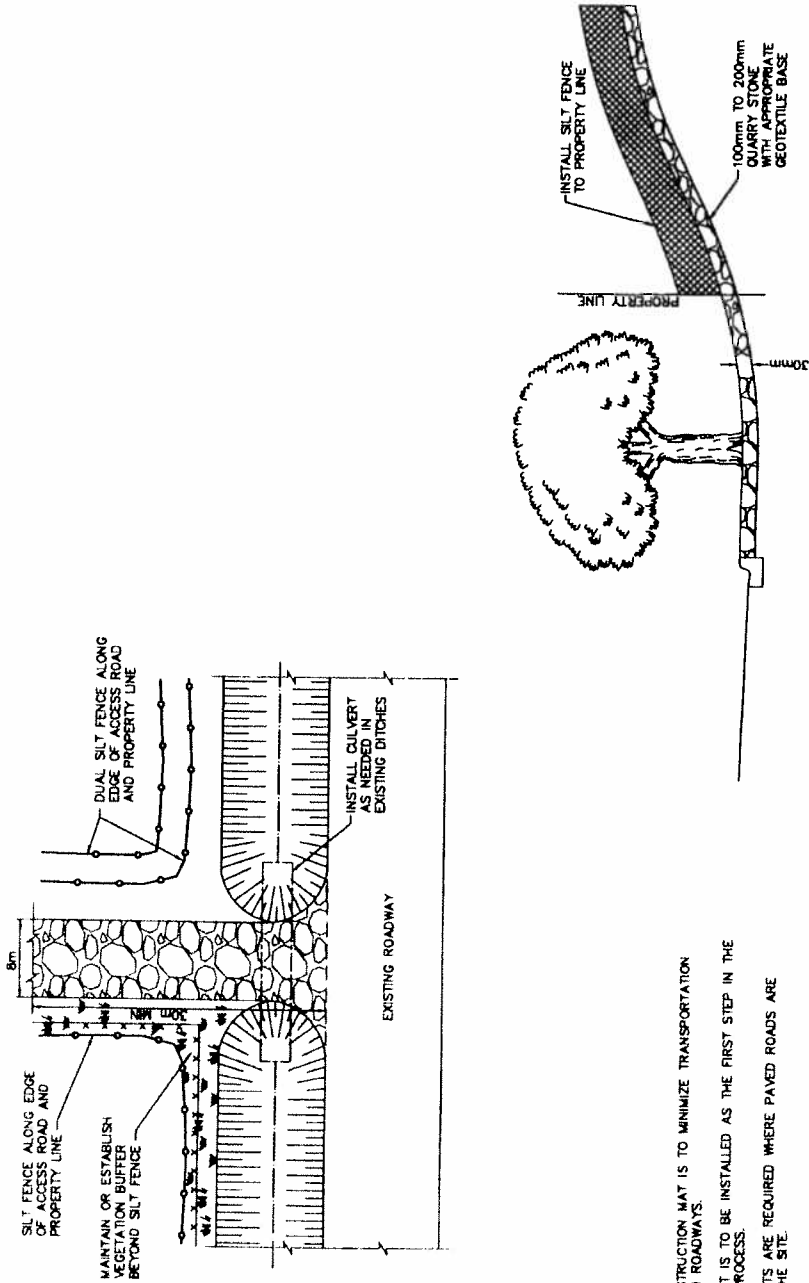
NOTES

1. SILT CONTROL FENCE SHOULD BE ALIGNED WITH COUTOURS FOR SHEET OVERLAND FLOW.
2. SILT/SEDIMENT CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFORM TO MTO DRAINAGE MANUAL VOLUME 2 "CHART F4-3C TOPOGRAPHIC FACTOR" IS BASED ON SLOPE LENGTH AND GRADIENT.
3. SILT/SEDIMENT CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRIC TOED INTO THE SOIL A MIN OF 100mm BY EITHER STATIC PLUNGING OR TRENCH METHODS WITH COMPACTION OF TRENCH MATERIAL MEETING 95% STANDARD PROCTOR DENSITY.
4. STEEL "T" BAR POSTS ARE TO BE SPACED MAX 2500mm ON CENTER.
5. FROZEN GROUND CONDITIONS REQUIRE FILTER FABRIC TO BE BACKFILLED IN TRENCH WITH CLEAR STONE.
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
7. GEOTEXTILE FABRIC TO BE COMPRISED OF WOVEN OR NON-WOVEN U.V. STABILIZED MATERIAL FABRIC TO BE FOLDED OVER TOP OF FENCE MIN 300mm AND WIRE FASTENED.

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SILTATION CONTROL FENCE		DRAWN BY DEN CON	REV No	1
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NOTES

1. PURPOSE OF CONSTRUCTION MAT IS TO MINIMIZE TRANSPORTATION OF SEDIMENT ONTO ROADWAYS.
2. CONSTRUCTION MAT IS TO BE INSTALLED AS THE FIRST STEP IN THE SITE ALTERATION PROCESS.
3. CONSTRUCTION MATS ARE REQUIRED WHERE PAVED ROADS ARE WITHIN 300m OF THE SITE.

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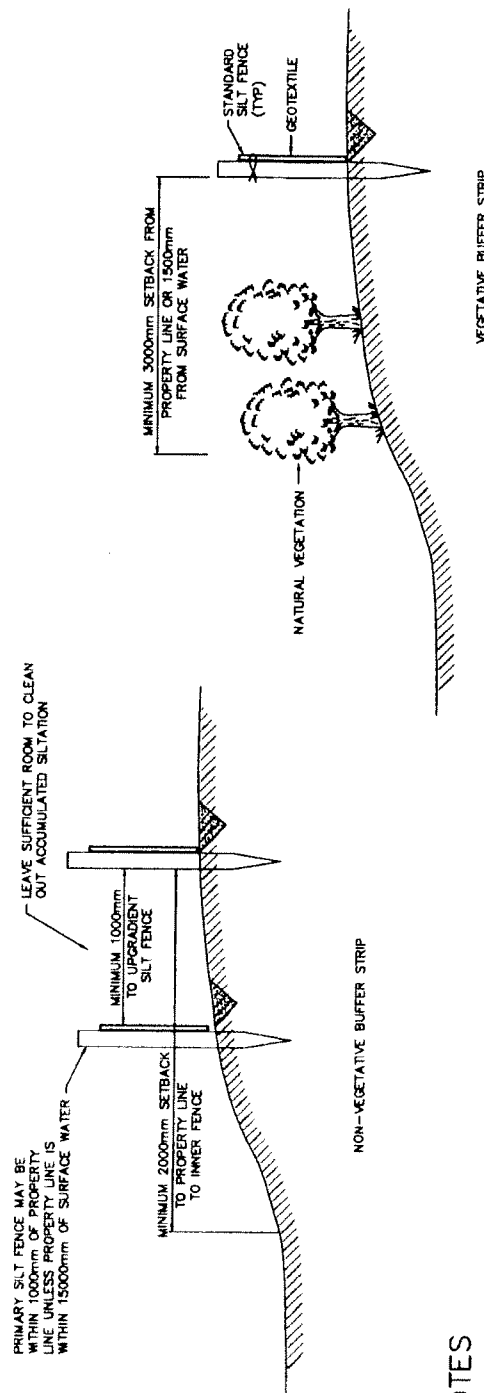
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CONSTRUCTION ENTRANCE
MAT

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NOTES

1. SILT CONTROL FENCE SHOULD BE ALIGNED WITH COUTOURS FOR SHEET OVERLAND FLOW.
2. SILT/SEDIMENT CONTROL FENCE IS TO BE LOCATED IN AREAS OF LOW SEDIMENT YIELD ON SLOPES THAT CONFORM TO MTO DRAINAGE MANUAL VOLUME 2 "CHART F4-3C TOPOGRAPHIC FACTOR" IS BASED ON SLOPE LENGTH AND GRADIENT.
3. SILT/SEDIMENT CONTROL FENCE SHALL BE INSTALLED WITH FILTER MEDIA FABRIC TOED INTO THE SOIL A MIN OF 100mm BY EITHER STATIC PLUMBING OR TRENCH METHODS WITH COMPACTION OF TRENCH MATERIAL MEETING 93% STANDARD PROCTOR DENSITY.
4. STEEL "T" BAR POSTS ARE TO BE SPACED MAX 2500mm ON CENTER.
5. FROZEN GROUND CONDITIONS REQUIRE FILTER FABRIC TO BE BACKFILLED IN TRENCH WITH CLEAR STONE.
6. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SHOWN.
7. GEOTEXTILE FABRIC TO BE COMPRISED OF WOVEN OR NON-WOVEN U.V. STABILIZED MATERIAL FABRIC TO BE FOLDED OVER TOP OF FENCE MIN 300mm AND WIRE FASTENED.

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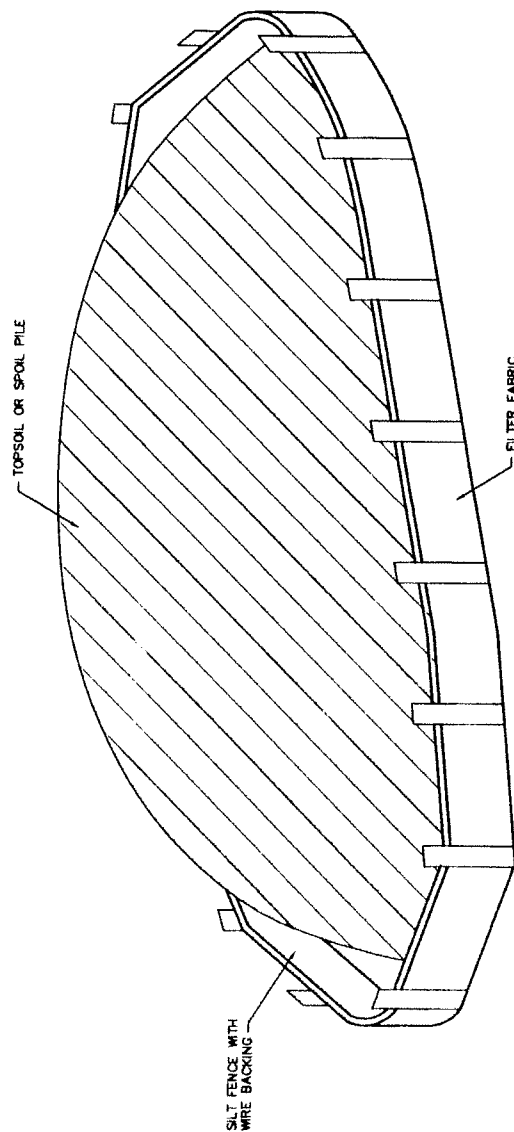
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BUFFER STRIPS


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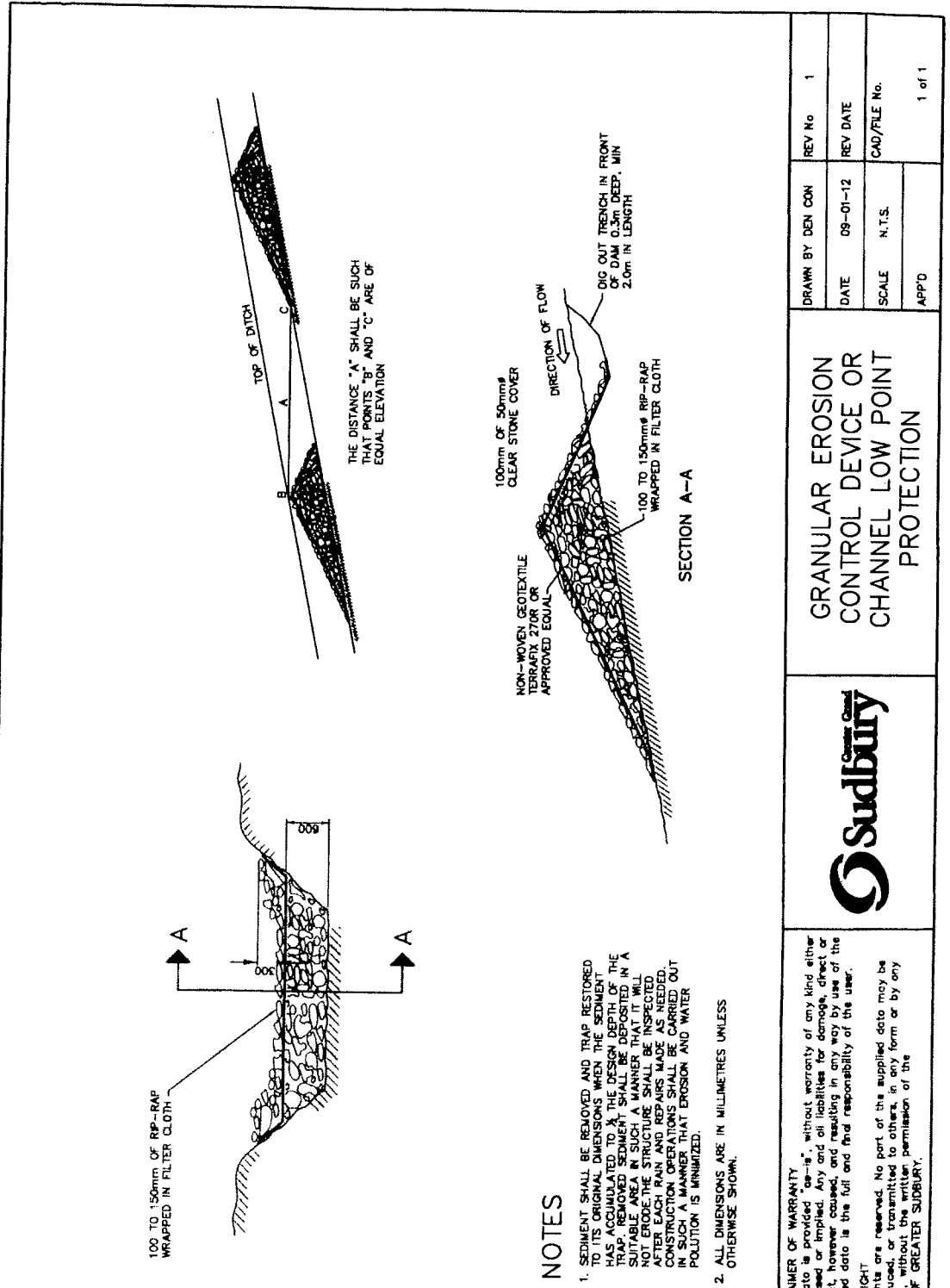


NOTES

1. PILES CONTAINING MORE THAN 100 CUBIC METRES OF TOPSOIL OR SPOIL SHALL BE LOCATED A MINIMUM OF 15 METRES FROM A ROADWAY OR CHANNEL.
2. PILES LEFT IN PLACE FOR MORE THAN 60 DAYS SHALL BE STABILIZED WITH A TARP, MULCH, VEGETATIVE COVER OR OTHER ACCEPTABLE MEANS.

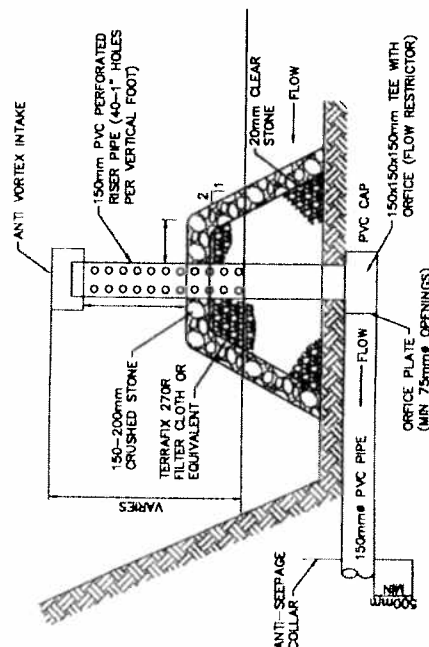
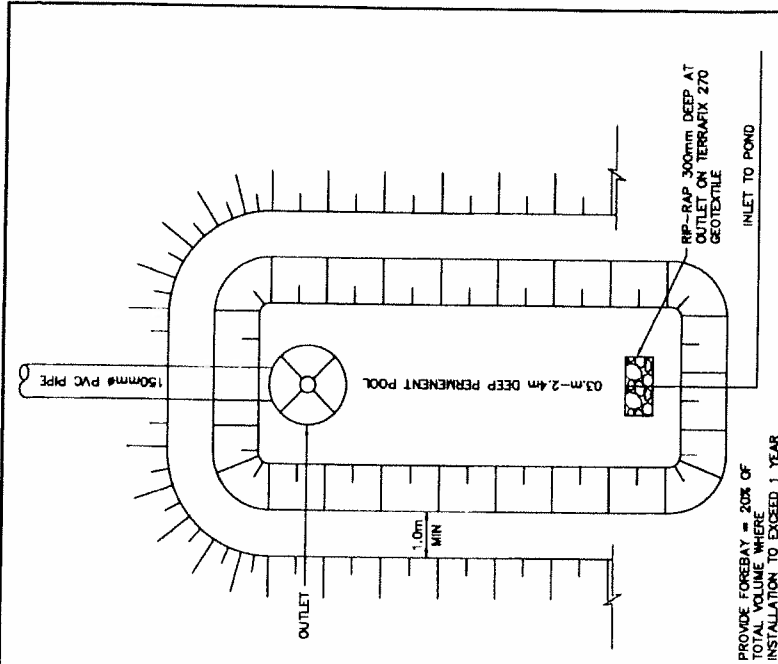
		DRAWN BY	DEN CON	REV No	1
		DATE	09-01-12	REV DATE	
		SCALE	N.T.S.	CAD/FILE No.	
		APP'D			1 of 1
SPOIL PILE SILTATION CONTROL					
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	GRANULAR EROSION CONTROL DEVICE OR CHANNEL LOW POINT PROTECTION		DRAWN BY DEN CON	REV No 1
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NOTES

1. POND BERMS TO BE CONSTRUCTED USING IMPERVIOUS MATERIAL COMPACTED TO 95% S.P.D. AND INSPECTED BY A PROFESSIONAL ENGINEER.
2. A 1.5m HIGH BARRIER FENCE SHALL BE ERRECTED ALONG PERIMETER OF SEDIMENT BASIN. WARNING SIGNS SHALL BE ATTACHED TO THE FENCING STATING THE AREA IS OFF LIMITS TO THE GENERAL PUBLIC AND ADVISING THAT THE BASIN IS USED FOR SEDIMENT CONTROL PURPOSES AND THAT THE SUBJECT AREA IS SUBJECT TO FLASH FLOODING.
3. THE BASIN IS TO BE CONSTRUCTED ON THE BASIS OF A MIN. LENGTH OF WIDTH RATIO OF 4 TO 1.
4. APPROPRIATE PESTICIDE AND LARVICIDE CONTROLS SHOULD BE MAINTAINED TO CONTROL MOSQUITO BREEDING.

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TEMPORARY SEDIMENT BASIN AND OUTLET DETAILS

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Topsoil Removal Permit Conditions:

It shall be a condition of all Site Alteration Permits that:

- (a) the Director shall be notified within 48 hours of the commencement of any Site Alteration activity;
- (b) the Director shall be notified of the completion of any control measures within days after installation;
- (c) the Permit Holder shall not modify the Control Plan without approval;
- (d) the Permit Holder shall install all control measures as identified in the approved Control Plan and shall ensure that it achieves Adequate Performance at all times;
- (e) the Permit Holder shall maintain all road drainage systems, stormwater drainage systems, control measures and other facilities identified in the Control Plan to ensure Adequate Performance;
- (f) the Permit Holder shall repair any situation or erosion damage to adjoining surfaces and drainageways resulting from Site Alteration activities to ensure Adequate Performance;
- (g) the Permit Holder shall inspect the control measures at least once per week and after each rainfall of at least one centimetre and make the needed repairs to ensure Adequate Performance;
- (h) the Permit Holder shall allow employees of the City to enter the Site for the purpose of inspecting for compliance with the Control Plan, to ensure Adequate Performance, or for performing any work necessary to bring the Site into compliance with the Control Plan;
- (i) the Permit Holder shall request that the City carry out a final inspection of the Site and to obtain the approval of the Director that this By-law and the terms and conditions of the Permit have been complied with by the Permit Holder;
- (i) the Permit Holder shall maintain a copy of the Control Plan on the Site; and,
- (j) the Permit Holder shall ensure that the work that is the subject of the Permit does not soil or otherwise foul any public road.
- (k) the Site Alteration activity will not result in:
 - i) soil erosion;
 - ii) blockage, siltation or pollution of a protected area;
 - iii) flooding or ponding or adverse impact of a protected area;
 - iv) a detrimental effect on any trees of a calliper of 75 mm or more located on the Site;

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- v) a detrimental effect on matters of inherent biological sensitivity such as an aquifer recharge, water quality, unusual plants or wildlife and overwintering habits;
- vi) a detrimental effect on any environmentally significant lands or areas of natural or scientific interest, wetland or wetland complex identified by the Nickel District Conservation Authority or the Ministry of Natural Resources;
- vii) any contravention of regulations, standards, or guidelines established pursuant to the Environmental Protection Act;
- viii) a level of waste or a nuisance unacceptable to the City or nearby residents;
- ix) contravention of any other applicable law or regulation.

DRAFT FOR DISCUSSION PURPOSES

designated in the New Official Plan

