

LAND USE

LOT GRADING POLICY

LAN.39

POLICY

Date Policy Adopted: December 7, 1999
Date Policy Amended: April 2, 2008

Council Resolution Number: 99/1142
CAO Approval

GENERAL

1. The lot grading requirements established under this policy are intended to clarify and expand upon the requirements generally set out in Sections 5.2.3, 7.2 and 7.3 of the Subdivision Control Bylaw No. 155-1985 as amended. The lot grading provisions in the Subdivision Control Bylaw shall remain in full effect except where clarified by this policy.
2. Lot grading requirements shall be applicable to residential single family subdivisions in all zones which permit subdivision into lots smaller than 0.36 hectares in area. The Engineer may waive some or all of the lot grading requirements for infill subdivisions of 3 or less lots if it can be demonstrated that the drainage from the lots would function satisfactorily with those provisions waived.
3. While lot grading is not a requirement for subdivision of rural or suburban properties into lots greater than or equal to 0.36 hectares in area, the developer of such properties shall demonstrate that all building sites created are adequately drained and that no adverse drainage impacts will be created on properties adjacent to the subdivision.
4. Lot grading for multi-family residential, commercial, industrial, and institutional properties shall be carried out at building permit stage to the requirements of building and related codes and regulations.

BASIC PRINCIPLES

The following principles shall guide the design and construction of lot grading works in subdivisions:

1. All organic material capable of producing methane shall be removed from all lots in the subdivision and replaced with inert fill. Fill placed within building envelopes shall meet the criteria set out in item 4 of this section.
2. No surface drainage from any lot in a subdivision shall be directed onto another lot within or adjacent to the subdivision by sheet flow or any other means. Where drainage from a lot cannot be directed onto a municipal road allowance, lane, greenbelt, or a park in accordance with the provisions of item 3 in this section, a lawn basin shall be used to collect lot drainage and discharge it to the storm sewer service connection for the lot. Where a lawn basin is required, the lot shall be graded to direct all surface drainage within the lot to

the lawn basin. The pipe connecting the lawn basin to the storm sewer service connection shall not be installed anywhere within the building envelope as defined in item 4 in this section.

3. Surface drainage from any lot may be directed onto a municipal road allowance, lane, greenbelt area, or park by sheet flow only.
4. All building envelopes shall be constructed of competent material suitable for conventional footings to be constructed anywhere within the building envelope and shall be so certified by a registered professional geotechnical engineer. Finished ground elevations at building envelopes shall be high enough to allow gravity connection to storm and sanitary service connections. Storm sewer service connection inverts at property line shall be located above the 25 year hydraulic grade line. Unless otherwise approved by the Engineer, the building envelope shall include the entire area within the lot where a dwelling unit may be legally placed as defined by setbacks set out in the zoning bylaw.
5. Sediment and erosion control measures shall be implemented to prevent migration of silt from any lot in the subdivision to any adjacent lot within or adjacent to the subdivision including municipal rights of way and/or road allowances and/or into a storm sewer or detention pond. Special care shall be taken to ensure that silt laden surface water does not enter any watercourses or environmentally sensitive areas either overland or through the storm drainage system. The developer shall comply with all directives issued by any of the environmental agencies.
6. Phased subdivision grading plans which provide for significant future cuts or fills immediately adjacent to neighbouring properties or lots within the initial phases of the subdivision shall be avoided.
7. Lot grading in the vicinity of the perimeter of the subdivision shall take into account the existing and likely future grades on the adjacent site. Elevations at the perimeter of a subdivision shall generally match existing grades on adjacent properties without the use of retaining walls unless it can be shown that this is consistent with the likely future grading of a subdivision on the adjacent property.
8. No material classified as contaminated soil or hazardous waste under the Environmental Management Act shall be deposited anywhere in the subdivision.

PROCESS

1. Lot grading plan for entire subdivision to be prepared and submitted to Engineering Department for review. Departmental review will ensure that all criteria in the Subdivision Control Bylaw and this policy have been met. This will include a review of drainage swales and lawn basin locations. Once the grading plan is acceptable it will be included in the accepted set of construction drawings for the subdivision.
2. Once the subdivision works and services including lot grading are complete, Developer to submit a sealed as built lot grading plan from his civil engineer plus a tabulated summary of ground conditions for all lots in the subdivision plus individual ground condition sheets for each lot in the subdivision confirming to the samples attached and sealed by a registered professional geotechnical engineer. Certificate of completion will not be issued for the subdivision until all of the lot grading and other as built have been received and accepted.
3. Sealed as-built lot grading plans shall be filed in property record files for use by Inspections Service Department in processing building permit applications.

Individual Lot Geotechnical Summary

Date

File

Subdivision Description

Lot Number _____

Ground Condition at MBE approved for foundation work Front: _____
Rear _____

Allowable design soil bearing pressure _____ kpa _____ psf

Minimum Footings Width _____

Additional Comments _____

Engineering Firm Name

Engineer's name

Engineer's seal

DESCRIPTION OF SUBDIVISION

Summary of Ground Conditions

Lot #	Foundation material at Front	Foundation Depth Front (m)	Foundation Material at rear	Foundation Depth Rear (m)	Average Elevation Front (m)	Average Elevation Rear(m)	MBE (m)	Depth MBE Front (m)	Depth MBE Rear (m)	Approval Front Fill Requirement	Approval Rear Fill Requirement	Allowable Bearing Pressure (kPa)	Allowable Bearing Pressure (psi)

Geotechnical Engineer's seal here