



## Building Department Comprehensive Lot Grading Policy

### GENERAL

1. The comprehensive lot grading requirements established under this policy are intended to clarify and expand upon the requirements generally set out in Appendix C of the City's Subdivision and Development Servicing and in Section 11 of the City's Watercourse Protection Bylaw. The comprehensive lot grading provisions in the Bylaws mentioned above shall remain in full effect except where clarified by this policy.
2. Comprehensive lot grading requirements shall be applicable to residential single family subdivisions in all zones. If the Engineering Department has waived all or some of the servicing drawing requirements for a subdivision then the Building Department will not require a comprehensive lot grading plan. In those circumstances, the building permit applications must demonstrate adequate measure to address grade transitions and drainage between proposed and existing lots.
3. Lot grading for multi-family, commercial, industrial and institutional properties shall be carried out at building permit stage to the requirements of building and related codes, bylaws and regulations.

### BASIC PRINCIPLES

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

1. 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 City road allowance, lane, greenbelt, or a park in accordance with the provisions of item 3 and 4 in this section, a developer-built 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 5 in this section.
2. Surface drainage from any lot may be directed onto a City road allowance, lane, greenbelt area, or park.
3. All fill material placed anywhere within a building envelope shall be of competent material suitable for conventional footings. Finished ground elevations at building envelopes shall be high enough to allow gravity connection to storm and sanitary service connections. Pumping for storm service connections will not be permitted. Pumping for sanitary service connections may be considered for a limited number of proposed lots if it can be demonstrated that gravity sanitary service connections can be achieved for the majority of the lots in a subdivision. The decision to allow pumping for sanitary services is at the sole discretion of the Manager of Inspection Services.
4. The building envelope shall include the entire area within the lot where a dwelling unit may be legally placed as defined by the setbacks set out in the City's Zoning Bylaw. If the size or the slope of the lot makes it unpractical to build to the full envelope, then the design engineer must provide a representative building envelope based on typical house construction on similar sized lots.



## Building Department Comprehensive Lot Grading Policy cont'd

5. Driveway grades must be less than 14%. For urban subdivisions it is recommended that driveways are designed to be up-slope where possible and to be limited to a maximum grade of 10%.
6. 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 watercourse 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 or the City's environmental staff.
7. Phased subdivision grading plans which provide for significant cuts or fills immediately adjacent to neighbouring properties or lots with the initial phase of the subdivision or adjacent to established developments are not permitted. Measures must be identified that provide grade transitions to the existing grades of adjacent properties.
8. 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.
9. Designated control points (corner pins, grade changes, lawn basins and swale lines) must be constructed and the ground between these control points needs to be uniformly graded. Where grade transitions are anticipated to be made by builder-built retaining walls, the ground can be stepped or be evenly graded with the final grades being constructed at the building permit stage.
10. Any retaining walls that cross multiple property lines must be designated as developer-built walls and must be constructed by the developer prior to building permit application. Boulder retaining walls cannot be constructed between lots in urban subdivisions unless it can be demonstrated that the proposed house construction will have additional side yard setbacks. The boulder wall, in these circumstances, must be constructed on the "low side" lot to facilitate future fence and maintenance considerations.
11. No material classified as contaminated soil or hazardous waste under the Environmental Management Act shall be deposited anywhere in the subdivision.

### PROCESS

1. Comprehensive lot grading plans for entire subdivisions are to be prepared and submitted to the Engineering Department for review. Departmental review will include review by the Building Department to ensure that all criteria contained in the "Comprehensive Lot Grading Plan Requirements" are incorporated into the grading plan. This is in addition to the criteria contained within applicable bylaws, policies and regulations. Once the grading plan is acceptable it will be included in the accepted set of construction drawings for the subdivision.



## Building Department Comprehensive Lot Grading Policy cont'd

2. Once the subdivision works and servicing, including the lot grading, are complete the Developer is to submit a sealed as-built lot grading plan to the Building Department. Building permits will not be issued for the subdivision until the as-built lot grading plan has been received and accepted by the Building Department. A certificate of completion will not be issued for the subdivision until an as-built lot grading plan has been received and accepted by the Engineering Department.
3. A sealed memo from the subdivision's civil or geotechnical engineer is required to be submitted to the Building Department for all developer-built retaining walls. This memo must confirm that the wall was built and inspected to good engineering standards and must be on file with the Building Department prior to the application for any building permits that have a developer-built retaining wall on the lot.
4. All anticipated areas of cut must be graded to the comprehensive lot grading plan requirements. Areas of fill can be left in their natural state if it can be demonstrated that the final design grades will be met by anticipated house construction within a reasonable time frame (6 months) and that it can be demonstrated that it will not have a negative impact on adjoining lots.
5. An as-built comprehensive lot grading plan must also be submitted with the as-built servicing drawings to the Engineering Department.