

MOTIONS

To Set Public Hearings for the Council Meeting of Thursday, January 28, 2016 for:

It was moved by Councillor Coleman, seconded by Councillor Loveday, that the following Public Hearings be held in Council Chambers, City Hall, on **THURSDAY, JANUARY 28, 2016, at 7 p.m.:**

Zoning Regulation Bylaw, Amendment Bylaw (No. 1050) No. 16-004

Carried Unanimously

REPORTS OF THE COMMITTEES

2. Planning and Land Use Committee – June 25, 2015

5. Zoning Regulation Bylaw Improvement Project – Phase 2

It was moved by Councillor Coleman, seconded by Councillor Lucas, that Council instruct staff to prepare the necessary Zoning Regulation Bylaw Amendment, that first and second reading of the Zoning Regulation Bylaw Amendment be considered by Council and a Public Hearing date be set in order to:

1. Add definitions of "finished grade" and "natural grade".
2. Amend the definitions of "site coverage" and "setbacks" and the applicable low density residential zones to include a requirement that raised-building features greater than 0.6m in height are subject to site coverage and setback regulations. Carried Unanimously

Committee recessed at 10:29 a.m.

Councillor Coleman excused himself from the meeting at 10:29 a.m.

Committee reconvened at 10:34 a.m.

6. POLICY REPORT

6.1 Zoning Regulation Bylaw Improvement Project – Phase 2

Committee received a report dated June 11, 2015 from Development Services that updated Council on the results of the community consultation that took place regarding the *Zoning Regulation Bylaw* as it pertains to alteration of topography in low-density residential zones and to advance the proposed *Zoning Regulation Bylaw* amendments for consideration at a Public Hearing.

Committee discussed:

- Examples of grade issues from previous proposals.
- That blasting has become more common instead of working with the topography of the site.
- Concerns that some people are more concerned with maximizing the density on the site without consideration for the impact on neighbours.
- The City's authority to regulate retaining walls, and exploring ways to regulate the height of retaining walls.

Action:

It was moved by Councillor Madoff, seconded by Councillor Thornton-Joe, that Committee recommends that Council instruct staff to prepare the necessary Zoning Regulation Bylaw Amendment, that first and second reading of the Zoning Regulation Bylaw Amendment be considered by Council and a Public Hearing date be set in order to:

1. Add definitions of "finished grade" and "natural grade".
2. Amend the definitions of "site coverage" and "setbacks" and the applicable low density residential zones to include a requirement that raised-building features greater than 0.6m in height are subject to site coverage and setback regulations.

CARRIED UNANIMOUSLY 15/PLUC/145



Planning and Land Use Committee Report For the Meeting of June 25, 2015

To: Planning and Land Use Committee **Date:** June 11, 2015

From: Alison Meyer, Assistant Director, Development Services Division

Subject: **Zoning Regulation Bylaw Improvement Project – Phase 2**
Alteration to Topography in Low-Density Residential Zones
Consultation and Next Steps

RECOMMENDATION

Staff recommend that Committee forward this report to Council and that Council instruct staff to prepare the necessary Zoning Regulation Bylaw Amendment, that first and second reading of the Zoning Regulation Bylaw Amendment be considered by Council and a Public Hearing date be set in order to:

1. Add definitions of "finished grade" and "natural grade".
2. Amend the definitions of "site coverage" and "setbacks" and the applicable low density residential zones to include a requirement that raised-building features greater than 0.6m in height are subject to site coverage and setback regulations.

LEGISLATIVE AUTHORITY

In accordance with Section 903 (c) of the *Local Government Act*, Council may regulate within a zone the use of land, buildings and other structures, the density of the use of the land, building and other structures, siting, size and dimensions of buildings and other structures as well as the uses that are permitted on the land and the location of uses on the land and within buildings and other structures.

EXECUTIVE SUMMARY

The purpose of this report is to update Council on the results of the community consultation that took place regarding the *Zoning Regulation Bylaw* as it pertains to alteration of topography in low-density residential zones and to advance the proposed *Zoning Regulation Bylaw* amendments for consideration at a Public Hearing.

In the Fall of 2012, Council endorsed a consultation process to engage the public and development community in a discussion of recommendations stemming from three reports (attached) on issues related to the alteration of grade as part of the development of properties in low-density residential zones. The consultation was carried out from August to the end of October 2013. The consultation included the posting of relevant material on the City's website, invitations to Community Associations and the development community to review the material

and provide comments, an advertised public Open House and a Focus Group session. Based on the feedback received as well as further staff consideration, the original recommendations have been reconsidered and revised. The delay in advancing this work was a result of an increase in complex development applications needing to be processed by staff combined with needing to ensure that any proposed measures would not result in unnecessary administrative burden or lengthy review and permitting processes.

One aspect of the work was to examine the feasibility of establishing regulations for retaining walls. During this review process, it was determined that it would be challenging to enforce and administer the regulations for retaining walls for the following reasons:

- retaining walls for landscaping purposes are generally not shown on building plans and do not require a building permit, therefore, there is no mechanism triggering a staff review
- landscaping is typically completed at the end of a project after the city has approved the plans and often after inspections are completed
- although issues associated with retaining walls periodically emerge, the city has received relatively few complaints related to retaining walls
- it would require additional staff time and resources to review plans and enforce the requirements for these types of zoning bylaw regulations
- only two of the eight consulted CRD municipalities regulate retaining walls, however, the feedback received from these two municipalities is that it is challenging to enforce and administer
- measures proposed in relation to hard-surfaced landscape features will address many issues related to retaining walls.

Another change that was considered was the possibility of introducing regulations pertaining to minimum standards for soft-surfaced landscaping. However, these types of amendments would require a new process, with significantly more resources, would be difficult to administer and may lead to community expectations that cannot be met; therefore, staff recommend, for Council's consideration against advancing this change further.

As noted in the staff recommendation provided for Council's consideration, amendments to the definitions of "finished grade" and "natural grade" are proposed to add clarity to how height is measured and new regulations related to raised-building features, such as decks and patios, are proposed which are aimed at addressing many of the issues that result from grade manipulation and the introduction of raised landscape features.

BACKGROUND

In the Fall of 2012, Council considered three reports exploring various aspects of the development and alteration of land on sloped sites in low-density residential areas. The reports discussed how grade is calculated to determine building height, the use of retaining walls, the use of patios and stairs as well as hard-surface and soft-surface landscaping. A number of recommendations were presented for discussion and consideration. The original reports and a summary document (prepared as part of the consultation process) are attached to this report. With the presentation of these initial reports, Council endorsed a consultation process to engage the public and land development community.

The consultation process took place from August 2013 to the end of October 2013 and included:

- posting a summary of the issues, along with the original reports, on the City's website for review and comment
- invitations to the Community Associations and development community to review and comment on the material
- a public Open House (September 18, 2013) advertised on the City's website, in newspapers and with invitations sent to the Community Associations and development community
- display materials and surveys from the Open House were posted on the website along with an invitation to participate
- a Focus Group session (October 30, 2013) was held with interested parties.

While the numbers of participants that attended the Open House and Focus Group were small, the events provided a good forum for discussion of the issues and the exchange of ideas. This was especially true in the Focus Group session. Development industry representatives consistently raised the concern that any new regulation be measured against the potential additional cost and time added to the development process, which may negatively affect housing affordability, while neighbourhood representatives reiterated concerns about impacts of retaining structures on neighbours and the public realm and staff raised concerns about potential administrative challenges associated with regulating landscaping features. The survey results and the Focus Group Discussion Notes are attached to this report for information.

The delay in advancing this work was a result of an increase in complex development applications needing to be processed by staff combined with waiting to ensure that any proposed measures would not result in unnecessary administrative burden or lengthy review and permitting processes.

ANALYSIS

The issues and analysis sections in this report are combined for each of the following topics:

- grade calculation in low-density residential areas
- regulation of retaining walls
- regulation of hard-surface landscape features
- regulation of soft-surface landscaping.

Each section below highlights the issue, provides a discussion of the feedback that was received through the consultation and offers a recommended approach based on community input, paired with regulatory, administrative and enforcement considerations that are pertinent to each topic.

Grade Calculation in Low-Density Residential Areas

The issues associated with grade calculation in low-density residential areas are:

- Does the current method of calculating grade in relation to building height contribute to increased building height of sloped sites?
- Are there any changes or clarifications that could be introduced to improve the current regulations?

The way that grade is currently calculated is well understood and is relatively easy to administer. It does not allow the building height to be increased by manipulating the existing grade of a property and is consistent with best practices in other municipalities. The October 26, 2012, report recommends that the current method of calculating grade be retained. This was endorsed by those who attended the Open House and Focus Group session. It was also agreed that the addition of the definitions for "natural grade" and "finished grade" would help to clarify the current regulations. Staff recommend that Council retain the existing regulations on Grade Calculation and add definitions for "natural grade" and "finished grade."

Regulation of Retaining Walls

The issues associated with the regulation of retaining walls are:

- Should retaining walls be regulated?
- How would new regulations be administered?

The use and perception of retaining walls proved to be a significant topic of interest throughout the consultation process. There was recognition of the need to use retaining walls in various ways on properties as a legitimate part of the development; however, there was also a concern expressed about the impact of retaining walls, especially on those properties that are below the retaining wall, including the public realm.

Creating a regulatory framework and administrative process that effectively deals with any situation while allowing for some flexibility to respond to specific site considerations is challenging. Some additional challenges with respect to regulating retaining walls are:

- retaining walls for landscaping purposes are generally not shown on building plans and do not require a building permit, therefore, there is no mechanism for staff to review
- landscaping is completed at the end of a project after the City has approved the plans and often after inspections are completed
- although issues associated with retaining walls periodically emerge, most concerns have, in fact, been related to raised-building features such as patios, decks and swimming pools
- it would require additional staff time and resources to review plans and enforce the requirements for these types of zoning bylaw regulations, particularly in instances where the retaining wall does not require a Building Permit.

Although it was suggested, through the consultation process, that there be some form of design review process, with the potential for a delegated staff approval, there is no legislative authority that would allow this for the vast majority of properties zoned for single family dwellings and duplexes. Delegated authority may only be granted by a Council to staff in instances where properties are subject to Development Permit Area regulations.

Only two of the eight consulted CRD municipalities regulate retaining walls, however, the feedback received from these two municipalities is that it is challenging to enforce and administer. Some other municipalities in British Columbia, usually characterized by hillier topography and greenfield development, do regulate retaining walls. However, they noted similar issues in dealing with retaining walls that are built "after the fact," that are not reviewed as part of a subdivision plan or building permit. In Victoria, the challenges associated with retaining walls have largely been in association with some form of deck or patio extension, which do trigger the need for a Building Permit, if over two feet in height. Given these unique

circumstances, new regulatory measures proposed in relation to hard-surfaced landscape features will address many of the issues related to retaining walls.

Considering the challenges described above combined with the potential of addressing many of the related issues through a different mechanism that will be discussed in the next section of this report, staff recommend that Council should not establish regulations for retaining walls.

Regulation of Hard-Surfaced Landscape or Raised-Building Features

The issues associated with the regulation of hard-surfaced landscape or raised-building features are:

- Should these types of features be regulated?
- What regulations would be appropriate?

The majority of respondents to the Open House agreed there should be some form of regulation for hard-surface landscape features. There was a general recognition, by both the community and development industry, that raised features created as part of a landscape that result in large hard-surface areas, especially those built out of concrete, can be an imposition on adjacent properties and the sides of these features are often perceived as retaining walls. There was, however, also a concern by some respondents that any regulation would negatively affect a property owner's rights. During the staff review and Focus Group, the current way that the Bylaw is interpreted to differentiate between concrete or stone landscape features and those made out of wood was discussed. Under this interpretation, wooden decks of any height attached to a building are subject to site coverage and setback requirements while raised patios and stairs made of concrete or stone, less than 1.52m (5 ft), are not. The photographs below show raised patios and concrete stairs that would be currently exempt from site coverage and setback regulations.



Photos: Example of Raised-Building Features

There were mixed reviews of the proposed 0.6m (2ft) height above which hard-surface landscape elements would be subject to building setback and site coverage requirements. Comments varied from not supporting any regulation to suggesting a lower maximum height. Permeability, related to the type of structure, was also raised as part of this discussion and is discussed further in the section on regulations for soft-surfaced landscaping.

As with retaining walls, the challenge is how to create a regulatory framework and administrative process that effectively deals with any given situation which also allows for some flexibility to respond to a specific site without introducing an unwieldy and time-consuming process.

During the consultation phase, the term “hard-surfaced landscape features” was utilized; however, as staff examined the issue further, a simplified more efficient approach was identified, which includes classifying these types of elements as “raised-building features”. Details related to this revised approach are outlined below; however, the terms are considered interchangeable for the purposes of discussing the issues in this report.

Using the term “Raised-Building Feature” instead of “Hard-Surface Landscape Feature” would be more relevant to this section as “building” defined in the *Zoning Regulation Bylaw* means anything constructed or placed on a lot used or intended for supporting any use, such as a deck or patio attached or detached from the principal dwelling. The simplest and most effective way of dealing with raised-building features would be to make any feature, attached or detached from a building, above 0.6m (2 ft) in height, regardless of material, subject to building site coverage and setback regulations. This can be accomplished by amending the definitions of “site coverage” and “setbacks” and the applicable low density residential zones by adding the requirement that raised-building features are included in calculations referring to the proposed measurement. The diagram below, illustrates this approach.

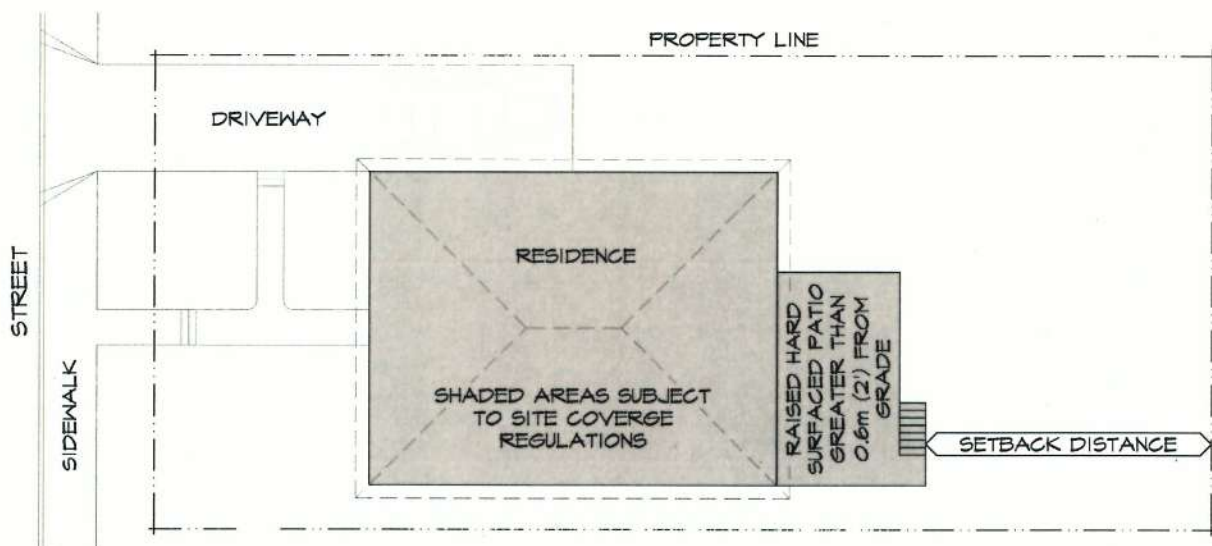


Diagram: Raised- Building Structures Greater than 0.6m (2ft)

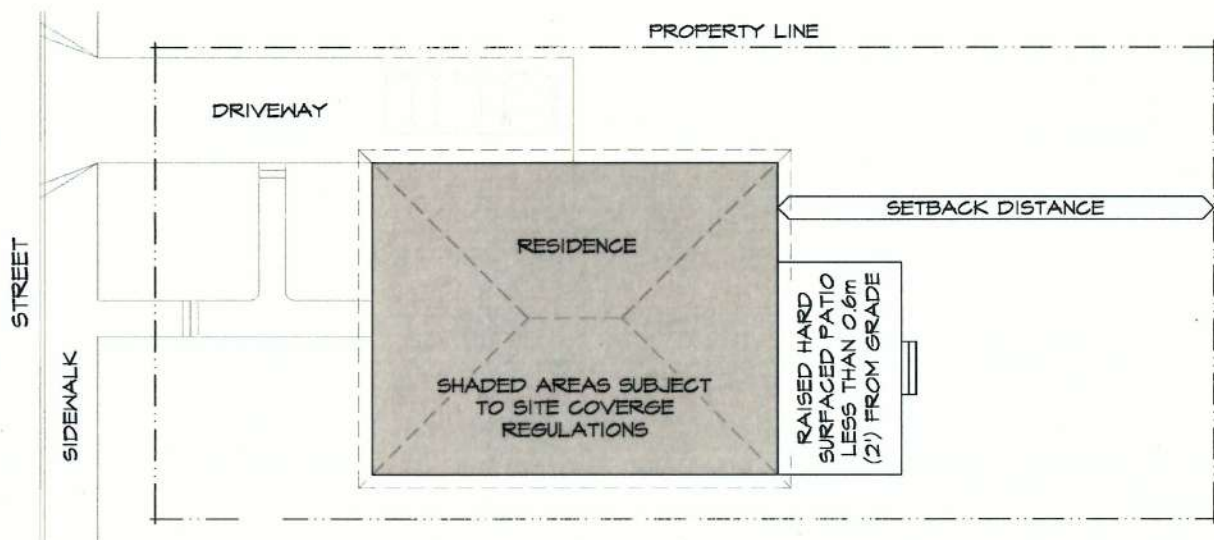


Diagram: Raised-Building Structures Less than 0.6m (2ft)

Given that a Building Permit is required for a structure over 0.6m (2ft) in height above finished grade, the introduction of this new regulation could be accommodated within existing staff review processes. The variance process would be available to potentially accommodate proposals that exceed the regulations. This approach would have provided the regulatory framework necessary to address the forms of development that occurred in the Rockland and Gonzales neighbourhoods that sparked neighbourhood concerns.

Regulation of Soft-Surfaced Landscaping

The issues associated with regulation of soft-surfaced landscaping are:

- Should soft-surfaced landscaping be regulated?
- What regulations would be appropriate?

Generally in low density residential zones, there is no requirement for a permit for landscaping and no legislative authority to regulate the details of landscaping beyond the basics such as the percentage of open site space. Additionally, during the consultation process, it was found that illustrations of different landscapes were interpreted differently, what one person considers "planted or natural", another person does not.

The majority of the respondents to the survey did not agree with the idea of regulating landscaping on private property. Generally, the community representatives were in favour of some form of regulation and the development industry representatives were not. This was true at both the Open House and Focus Group session. However, it became clear, from the Open House survey question, asking for respondent's perception of whether the illustrations of different landscapes showed a minimum of 50% of a lot's open space with natural or planted vegetation, that the perception of what form of landscaping is supportable or not, is a matter of personal opinion. The survey question, associated pictures and summary of the question are provided below.

Survey Question: From the pictures below, you can see that introducing a requirement to maintain a minimum of 50% of a lot's open space with natural or planted vegetation poses some regulatory challenges. Please tell us whether you think the following examples would meet the proposed standard. Circle yes if you think it would meet the minimum, no if it would not.



Yes: 3 No: 2



Yes: 4 No: 2



Yes: 2 No: 2 Not Sure: 1



Yes: 2 No: 3



Yes: 5 No: 0



Yes: 3 No: 2

During the Focus Group, there was further discussion about the importance of the perception of the front yard as opposed to the rear yard, the front yard being the "public" face of a property. However, it became apparent that one of the main concerns related to front yards centered on the amount of hard surface paving materials and permeability.

A percentage requirement for soft landscaping would be very difficult to administer and regulate in low-density residential areas. Landscaping is typically a very personal expression of preferred outdoor living space; creating and enforcing regulations would be very difficult and time consuming for staff. Moreover, beyond the development of a very basic zoning regulation, the City does not have the authority to dictate the finer details related to landscaping standards in low-density residential zones. In medium and higher density developments as well as intensive forms of low density such, as small lot houses, landscaping typically forms part of a design review and Development Permit approval.

Any new regulations related to landscaping in low-density residential areas would require a significant amount of staff resources to communicate and manage and new staff resources to administer the additional process and monitoring would be required likely requiring an additional full-time position. As pointed out in the October 29, 2012, report on this topic, this is not a common practice in other municipalities.

Since a considerable degree of interest in the topic of landscaping is related to a concern about the lot's permeability, it is worth noting that measures have been introduced through the City's *Storm Water Management Bylaw* that encourage residents of low-density housing forms to increase the degree of permeability of their properties. It would seem that this is a better approach to encouraging change in this regard, as compared to the regulatory approach of the *Zoning Regulation Bylaw*. Staff, therefore, recommend for Council's consideration that no further amendments be made at this time.

Resource Impacts

Significant staff resources have already been devoted to researching, analyzing, reporting on and undertaking a community and industry consultation on issues associated with grade alterations in low-density residential areas. Although the impact of grade changes within low-density residential areas is sometimes perceived as having negative consequences within the immediate area, the far-reaching effects on the larger neighbourhood or City are often difficult to identify.

Adding the new definitions and regulations as outlined in this report will have a minimal impact on staff resources and the improved clarity may even reduce the staff time required to explain the existing regulations.

Undertaking further review or consultation on these topics will require continued staff dedication to this work and would likely delay fully commencing work to rewrite the parking regulation section of the *Zoning Regulation Bylaw*.

Maintaining the status quo requires no further staff resources, but has the disadvantage of not "cleaning-up" aspects of the existing *Zoning Regulation Bylaw* related to alteration to topography in low density residential zones that are presently unclear, which does currently represent a small expenditure of staff time to explain.

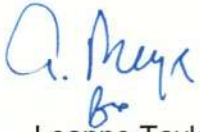
CONCLUSIONS

Most of the concerns that have been raised through the consultation process are specific to a few areas within the City and a few sites in particular. There is, nonetheless, a benefit to making some changes to the *Zoning Regulation Bylaw*, such as adding definitions of "finished grade" and "natural grade", and amend the definitions of "site coverage" and "setbacks" and the applicable low density residential zones to include raised-building features greater than 0.6m in height are subject to site coverage and setback regulations. The proposed changes would minimize the potential for negative consequences resulting from grade and topography alteration.

ALTERNATE MOTION

That Council receive the staff report and not proceed with the amendments to the *Zoning Regulation Bylaw*.

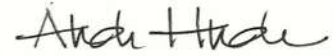
Respectfully submitted,



Leanne Taylor
Planner
Development Services Division



Alison Meyer, Assistant Director
Development Services Division
Sustainable Planning and
Community Development
Department



Andrea Hudson
Acting Director
Sustainable Planning
and Community
Development
Department

Report accepted and recommended by the City Manager:



Jason Johnson

Date:

June 19, 2015

LT:aw

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List of Attachments

- Zoning Bylaw Improvement Project - Phase 2: *Grade Calculations in Low-Density Residential Areas* - October 26, 2012
- Zoning Bylaw Improvement Project - Phase 2: *Retaining Walls and Associated Alteration of Lot Topography* - October 26, 2012
- Zoning Bylaw Improvement Project - Phase 2: *Patios, Stairs and other Hard-Surfaced "Landscaped" Features* - October 29, 2012
- September 18, 2013, Open House Survey Feedback
- October 30, 2013, Focus Group Discussion Notes.



DECISION REQUEST REPORT

Governance & Priorities Standing Committee

DATE: October 26, 2012

PREPARED BY: Ian Scott, Senior Planner

ENDORSED BY: Deb Day, Director, Planning and Development

SUBJECT: Zoning Regulation Bylaw Improvement Project – Phase 2:
Grade Calculations in Low Density Residential Areas

Executive Summary

The purpose of this report is to provide Council with information, analysis and recommendations regarding proposed improvements to the City of Victoria's *Zoning Regulation Bylaw*. This project is part of Phase 2 of the Zoning Regulation Bylaw Improvement Project and addresses Council's direction to staff to review "Grade Calculations in Low Density Residential Areas".

Issues related to grade and the perception of building height are very complex. Upon commencing this work, it was apparent that a simple set of bylaw amendments related to how grade and building height are calculated would not address all the issues. There are four key issues in need of discussion and exploration to fully understand and potentially address the concerns raised, including:

- (a) the current calculation of grade and the existing measures in place that prevent manipulation of building height measurements;
- (b) the potential of making new *Zoning Regulation Bylaw* amendments related to maximum height of retaining walls;
- (c) the potential of making new *Zoning Regulation Bylaw* amendments related to maintaining minimum soft landscaping standards;
- (d) the possibility of undertaking a future work program item related to the perceived height of residential buildings on sloped sites.

This report focuses on the first issue on the list above - the calculation of grade and building height. The other issues are addressed in separate reports.

The principal conclusion of this review is that the current method established by the *Zoning Regulation Bylaw* for calculating grade and determining permitted building height is consistent with best-practices. Therefore, staff is recommending that it not be modified. The current definition of "grade" does not allow additional building height when rock or soil has been added around a building. Additionally, the current definition of "grade" results in a lower permitted building height when rock or soil has been removed from a lot around the building.

In summary, under the current definitions and regulations a taller building cannot be achieved by altering the grade or topography of a property. While no significant issues have been

encountered to date in terms of administering the regulations related to calculating grade and determining building height, adding definitions to the *Zoning Regulation Bylaw* for "finished grade" and "natural grade" will ensure no ambiguity as to the meaning of these terms.

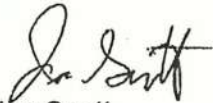
Adding these definitions will not fundamentally change how grade is calculated and it will simply lend clarity. Therefore, public consultation would not be essential. However, if Council decides to advance consultation related to the issues explored in the following reports, there would be a ready-made opportunity to share information with the community related to these new definitions.

Recommendation:

That Council direct staff to:

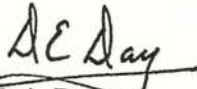
1. Prepare the necessary *Zoning Regulation Bylaw* amendments to add "finished grade" and "natural grade" definitions to the *Zoning Regulation Bylaw*.
2. Provide an opportunity for public information-sharing in conjunction with public engagement efforts outlined in the companion reports on retaining walls and hard-surfaced landscaping, only if Council advances the recommendations outlined in those reports for public engagement.
3. Forward the *Zoning Regulation Bylaw* amendment bylaw for consideration at a Public Hearing.

Respectfully submitted,



Ian Scott
Senior Planner
Development Services

Alt.



Deb Day
Director
Planning and Development



Peter Sparanese
General Manager
Operations

Report accepted and recommended by the City Manager: _____
Gail Stephens

IS:aw

1. Purpose

The purpose of this report is to provide Council with information, analysis and recommendations regarding the current method used to calculate grade and the existing regulations that are in place to prevent the artificial manipulation of building height. This is the first of four reports on a series of topics that relate to grade, retaining walls, landscaping and perception of building height on sloped sites.

2. Background

As a result of the Zoning Regulation Bylaw Improvement Project, there were a number of amendments made to the *Zoning Regulation Bylaw* (ZRB) which will help to maintain neighbourhood character and mitigate negative impacts of development on surrounding neighbours in the low density residential areas of Victoria.

On June 16, 2011, Council directed staff to commence Phase Two of the Improvement Project with the following motion:

Endorse the revised Phase 2 work plan of the Zoning Regulation Bylaw Improvement Project to include the following studies:

- (a) *Review of Commercial Zoning in Residential Neighbourhoods*
- (b) *Landscape Standards and Parking Design/Surface Material*
- (c) *Grade Calculations in Low Density Residential Areas*
- (d) *Soil Deposition and Removal Regulations.*

This report addresses topic (c) Grade Calculations in Low Density Residential Areas. The companion reports on retaining walls, soft landscaping and perceived building height on sloped sites do have some overlap with topics (b) and (d).

Large parts of Victoria include significant variation in topography as illustrated in Appendix A. The recent trend in Victoria for sloped-site development has been towards minimum-sized lots with uses built to maximum permitted floor areas. With modern building and blasting techniques, it has become less costly to make large alterations to the land and the finished grade of the lot. New architectural styles have become more popular and new homes, irrespective of architectural style, typically have full-height basements and larger garages visible from the street. Yards are being altered significantly with the construction of retaining walls and other features to provide building access, circulation around the building, construction of driveways and outdoor living spaces. In part, the alteration of the land around low density buildings is occurring to meet minimum driveway slope requirements of the *Highway Access Bylaw* and the ZRB. In other circumstances, these alterations are occurring to provide access to secondary suites in basements.

Some of these recent development trends have been perceived to have negative impacts on the public realm or neighbouring properties, including:

- large massing of buildings out of character with the neighbourhood
- loss of privacy for adjoining neighbours associated with raised yards or patios
- shadowing of adjacent properties by buildings, large retaining walls and raised yards

- concerns about whether retaining walls have been built to adequate safety and drainage standards
- construction impacts associated with soil and rock removal.

2.2 Project Scope

Single family dwellings, duplexes, small lot houses, garden suites, house conversions as well as attached and semi-attached dwellings are permitted within low density areas of Victoria and include properties in the following common zones or other similar site-specific zones:

- R1-A, Rockland Single Family Dwelling District (also permits attached or semi-attached dwellings)
- R1-B, Single Family Dwelling District
- R1-G, Gonzales Single Family Dwelling District
- R-2, Two Family Dwelling District
- R1-S1, Restricted Small Lot (One Storey) District
- R1-S2, Restricted Small Lot (Two Storey) District.

For the purpose of zoning and building regulations, the term “grade” has a few different common definitions, which can sometimes create confusion. For clarity, this report and the companion reports will use the following terms.

- “Grade” will be defined using the ZRB definition of this term. The ZRB definition is a calculated average based on reference to the exterior of a building and is defined as:

“Grade” means an elevation calculated as the average of the elevations of natural grade or finished grade level whichever is lower at any and all points at which any part of a building comes into contact with the surface of the lot, excluding any artificial mounds of earth or rocks placed at or near the wall of the building, and excluding the minimum window well width and depth as required by the British Columbia Building Code.
- “Finished Grade” will be used to refer the finished elevation (height) of the ground following construction or land altering activities.
- “Natural Grade” will be used to refer to the elevation (height) of the ground prior to any land alteration or construction. Where land alteration or construction has occurred some time in the past, determining natural grade relies on historical records or interpolation based on surrounding natural grades.
- “Slope” will be used to refer to the amount of inclination of the ground surface or installed services.
- “Grading plan” will be used to refer to a plan that generally documents the following:
 - (a) natural grade and finished grade at important reference points such as property boundaries, building edges, building entrances, driveway entrances and top and bottom of retaining walls;
 - (b) slope of driveways, walkways, outdoor areas and sometimes services;
 - (c) materials used for finishing finished grade.

3.0 Issues

The issues associated with grade calculations in low density areas are:

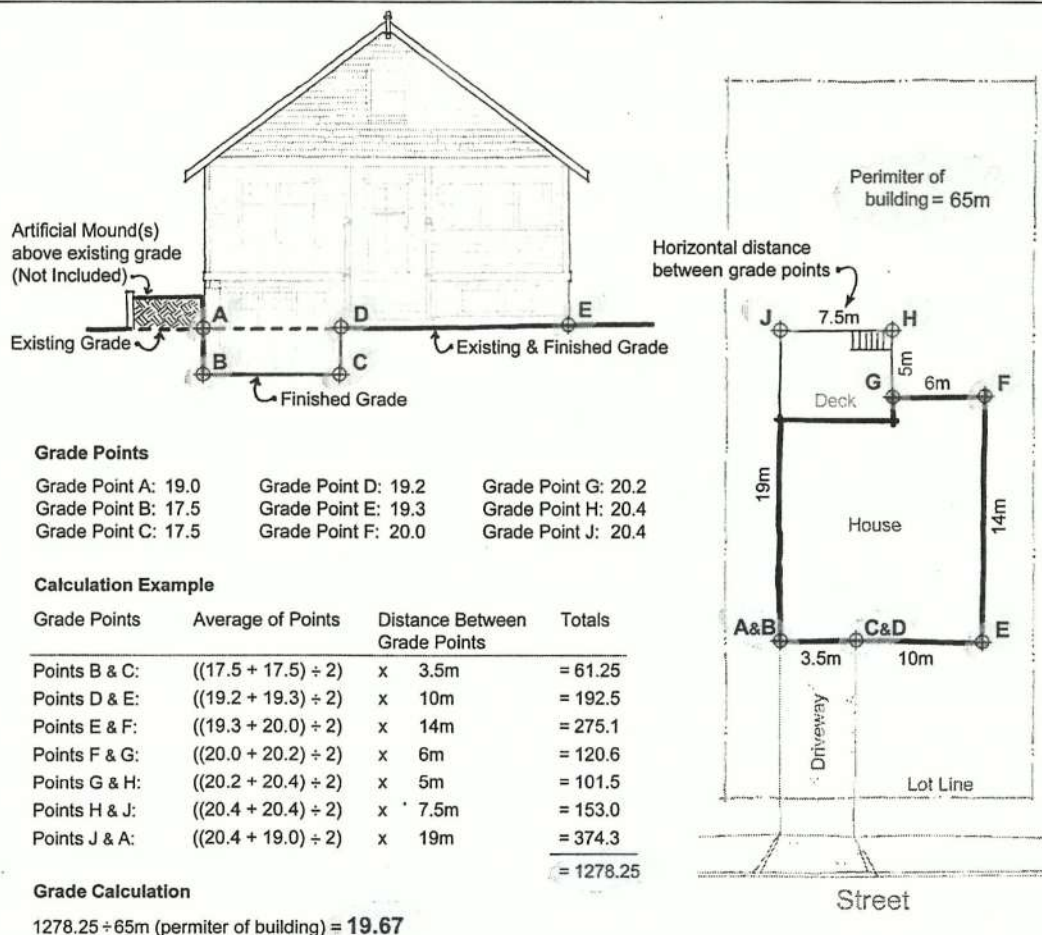
- grade calculation and building height
- finished grade and natural grade definitions.

4.0 Analysis

4.1 Grade Calculation and Building Height

Grade, as defined by the ZRB, is a calculation of the average elevation (height) of the ground around a building. Elevation is measured as the geodetic elevation in reference to mean sea level. As illustrated by Figure 1, this means considering the height of the ground at many points around the perimeter of the building. At each point, the lower of either finished grade or natural grade is used to establish an average grade, weighted by the length of each wall segment. Maximum permitted building height is then measured from this reference grade. This method of calculating grade is applied equally to flat and sloped sites.

Figure 1: Illustration of how “grade” is calculated based on the definition established in the *Zoning Regulation Bylaw*



On a relatively flat lot, grade will be at an elevation similar to elevation of the ground on all sides of the building. In contrast, as illustrated in Figure 2, on a sloped site the elevation of the ground on the up-slope side of the building will be above grade while on the down-slope side of the building the elevation of the ground will be below grade. Building height is measured from the grade reference elevation to the portion of the roof with the highest elevation. For a sloped roof this is defined as the midpoint and for a flat roof this is defined as the uppermost point.

Figure 2. No Grade Change - Location of grade and resulting permitted building height when the natural grade of the lot is not altered through construction.

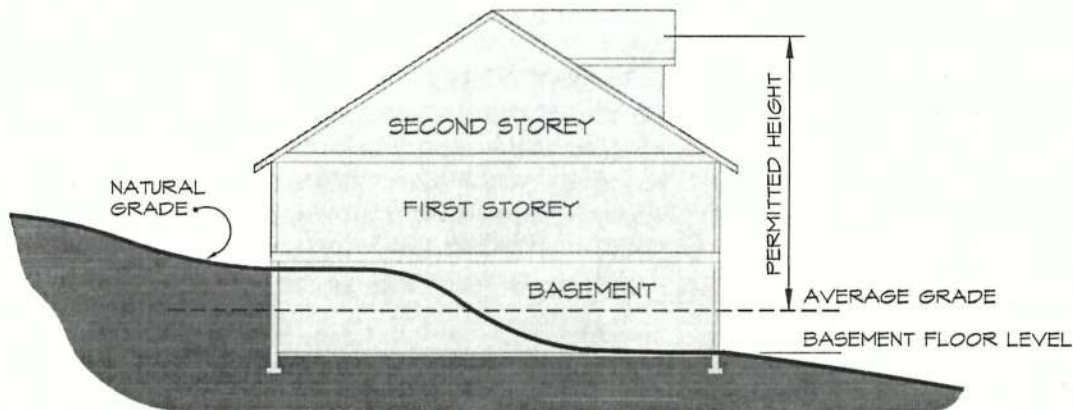


Figure 3 illustrates that when soil or rock is added to a site and the resulting finished grade is higher than natural grade, the ZRB definition of grade ensures that the permitted building height does not increase. Thus, if a property owner berms their property, the resulting building is no higher than would have been the case otherwise. In the situation where the finished grade of a property is permanently lowered through excavation, as illustrated in Figure 4, then the permitted height of the building decreases. Despite this, the actual height of the constructed building can be identical to what could have occurred pre-excavation, but simply at an overall lower elevation.

Figure 3. Berming - Location of grade and resulting permitted building height when the finished grade of the lot is raised above natural grade. Berming does not result in increased building height.

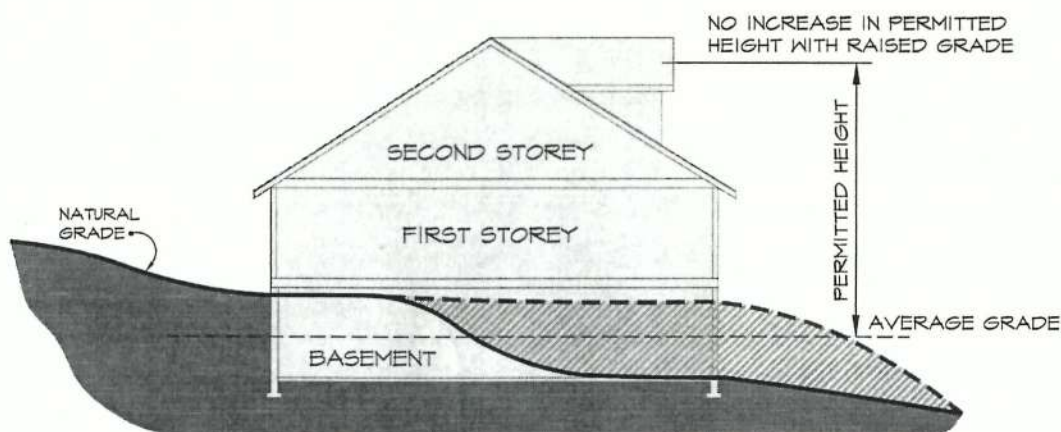
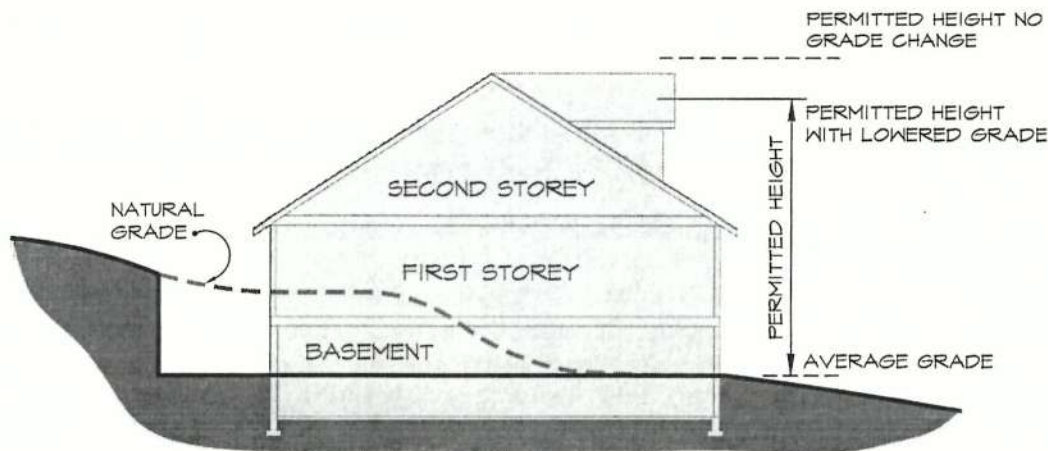


Figure 4. Excavation - Location of grade and resulting permitted building height when the finished grade of the lot is lower than natural grade. Excavation results in a lower elevation permitted building height.



The preceding analysis illustrates that the existing ZRB grade definition, which considers the lower of either finished grade or natural grade, provides no incentive in terms of increased building height for berming or excavating a property. In comparison, with a grade definition that considered only finished grade, berming could result in a building sitting at a higher height than would be permitted without berming. Similarly, where the grade definition considers only natural grade, through excavation the lower levels of the building will be below the reference natural grade and thus physically higher than the height of the building as defined by zoning.

While alternative definitions of grade are used in other municipalities (see Appendix B), the current ZRB definition is consistent with best-practices and provides a method for establishing a grade reference point which does not result in taller buildings being permitted.

4.2 Finished Grade and Natural Grade Definitions

This review has identified that one of the limitations of the existing ZRB grade definition is that both natural grade and finished grade are not defined by the ZRB. Where development occurs on a property that has not previously been altered, the natural grade of the land is readily measured by a surveyor. However, in the case of redevelopment, natural grade may have disappeared. In this case, the practice has been to establish natural grade based on contour maps or estimated based on the elevation of the land on adjacent lots or street. Finished grade is the elevation of the land after construction.

None of the challenging sites that have given rise to this report are the result of not having a definition for natural grade or finished grade. In part, this is because natural grade and finished grade are generally understood concepts used by land surveyors and other professionals. Nonetheless, staff is recommending that a definition of “natural grade” and “finished grade” be added to the ZRB to ensure that the public, property owners, developers, builders, professionals and staff share a common understanding. In particular, the definition of natural grade will address how to calculate natural grade in circumstances where natural grade has been altered

and records do not exist that document the pre-existing natural grade of the property. The ZRB amendments being recommended in the companion reports will rely on reference to both natural grade and finished grade.

5.0 Options

Option 1 (staff recommendation)

That Council direct staff to:

1. Prepare the necessary *Zoning Regulation Bylaw* amendments to add “finished grade” and “natural grade” definitions to the *Zoning Regulation Bylaw*.
2. Provide an opportunity for public information-sharing in conjunction with public engagement efforts outlined in the companion reports on retaining walls and hard-surfaced landscaping, only if Council advances the recommendations outlined in those reports for public engagement.
3. Forward the *Zoning Regulation Bylaw* amendment bylaw for consideration at a Public Hearing.

Option 2

That Council receive the report *Zoning Regulation Bylaw Improvement Project – Phase 2: Grade Calculations in Low Density Residential Areas* for information and not introduce new definitions for “finished grade” or “natural grade”.

Option 3

That Council direct staff to consult the public on the recommendations contained in the staff report *Zoning Regulation Bylaw Improvement Project – Phase 2: Grade Calculations in Low Density Residential Areas* along with the public consultation recommended in the companion reports and report back to Council.

6.0 Resource Impacts

There are no anticipated resource impacts with the recommendation contained in this report.

7.0 Conclusions

The alteration of land is a required component of new building construction. The analysis presented in this report has demonstrated that the existing grade definition does not provide any incentive to alter the topography of a lot for the purpose of being able to increase the building height. Moreover, where finished grade is lowered, the resulting permitted building height is also lowered. As such, there is no need to adjust current definitions of grade, although adding definitions for finished grade and natural grade will clarify the meaning of these concepts.

Despite this conclusion, there are issues associated with building on and altering of the topography of lots. These issues are analyzed in more detail in three companion reports.

- *Zoning Regulation Bylaw Improvement Project- Phase 2: Retaining Walls and Associated Alteration of Lot Topography*
- *Zoning Regulation Bylaw Improvement Project- Phase 2: Patios, Stairs and*

Other Hard-Surfaced “Landscaping” Features

- *Zoning Regulation Bylaw Improvement Project- Phase 2: Perceived Building Height on Sloped Lots.*

8.0 Recommendation

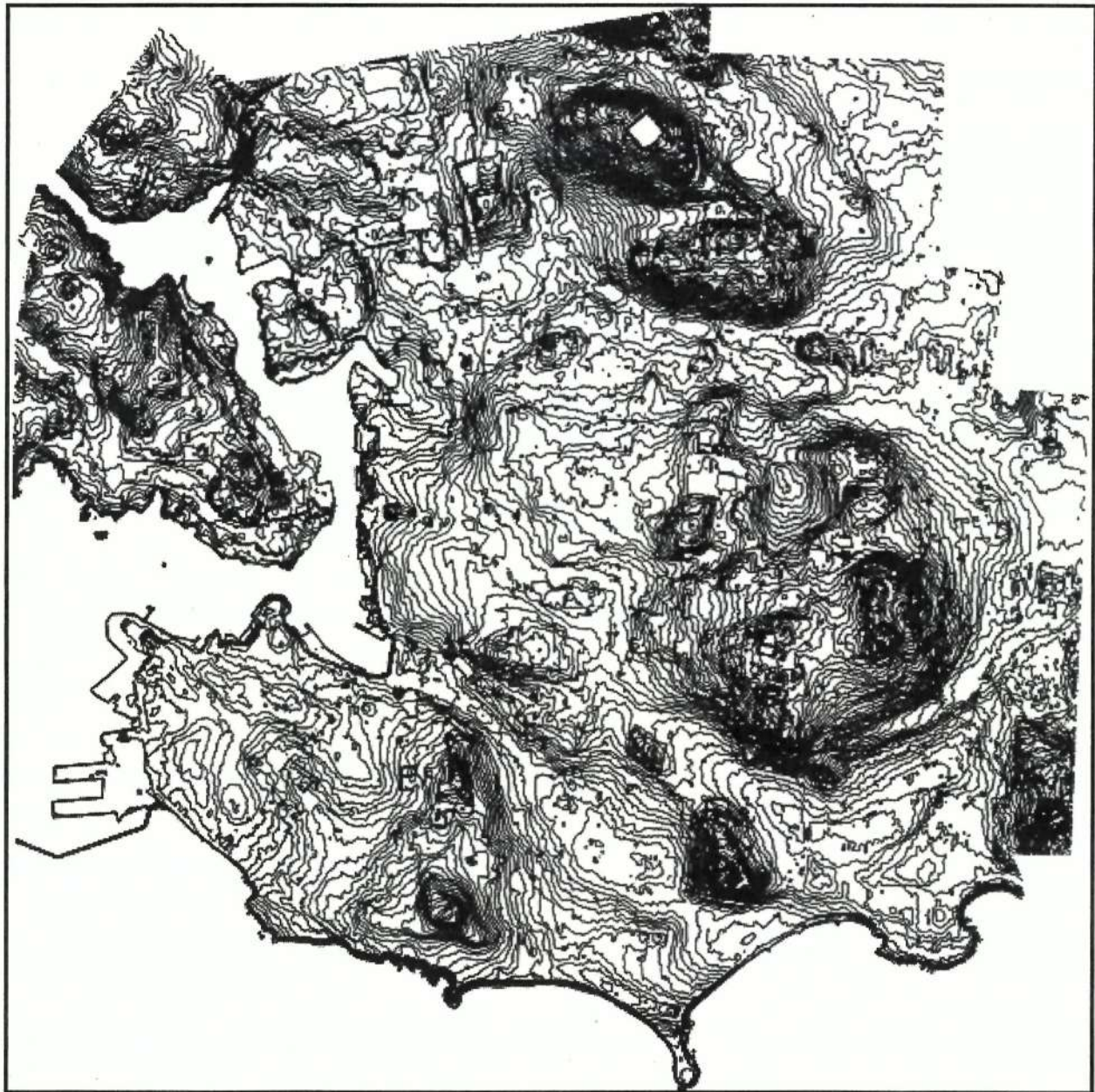
That Council direct staff to:

1. Prepare the necessary *Zoning Regulation Bylaw* amendments to add “finished grade” and “natural grade” definitions to the *Zoning Regulation Bylaw*.
2. Provide an opportunity for public information-sharing in conjunction with public engagement efforts outlined in the companion reports on retaining walls and hard-surfaced landscaping, only if Council advances the recommendations outlined in those reports for public engagement.
3. Forward the *Zoning Regulation Bylaw* amendment bylaw for consideration at a Public Hearing.

9.0 List of Attachments

- Appendix A: Topography Map of Victoria – 1 m Contours
- Appendix B: Grade and Retaining Wall Comparison, Select CRD Municipalities.

Appendix A. Topography Map Victoria – 1m contours



Appendix B. Grade and Retaining Wall Comparison, Select CRD Municipalities

Municipality	Grade method	Artificial grade changes considered in building height calculations	Regulate Finished grade	Regulate Retaining walls	Retaining wall height limits	Lot coverage includes decks/ patios
Victoria	Perimeter natural or finished grade (lowest)	yes	no	no	no	Decks only
Central Saanich	Perimeter natural grade	no	no	no	Yes, same height as fences	Decks only
Highlands	Four points finished grade	no	no	no	no	Decks only
Langford	Perimeter finished grade	no	no	no	no	Decks only
Oak Bay	Four points natural grade	yes	no	yes	1.2 (stepping at 1.5:1 ratio)	Yes, patios on-grade
Saanich	Perimeter natural or finished grade (lowest)	yes	no	no	no	no
Sooke	Four points natural grade	no	no	no	no	No, provided deck is free-draining
View Royal	Perimeter natural or finished grade (lowest average)	yes	no	yes	Yes, same height as fences	Yes, when higher than 0.3m



DECISION REQUEST REPORT

Governance & Priorities Standing Committee

DATE: October 26, 2012

PREPARED BY: Ian Scott, Senior Planner, Development Services

ENDORSED BY: Deb Day, Director, Planning and Development

SUBJECT: **Zoning Regulation Bylaw Improvement Project - Phase 2:
Retaining Walls and Associated Alteration of Lot Topography**

Executive Summary

The purpose of this report is to provide Council with information, analysis and recommendations regarding the possibility of introducing new regulations in the *Zoning Regulation Bylaw* that would limit retaining walls to a maximum height of 1.22 m. This is the second of four reports on a series of topics that relate to grade, landscaping and perception of building height on sloped sites.

There are currently no regulations that limit retaining wall height or the degree to which the grade of the land around a building may be altered. In the many sloped areas of Victoria, recent development trends have resulted in significant alteration of the topography as well as construction of large retaining walls. Some of these developments have caused concern due to their perceived visual impact on the public realm and neighbours, loss of privacy for adjacent neighbours, shadowing of neighbouring properties, altered drainage patterns and safety risks.

Staff have analyzed these issues as they relate to retaining walls and associated alteration of the lot topography, examined approaches used in other municipalities and recommend the following amendments to the *Zoning Regulation Bylaw*:

- adding a definition for "retaining wall" and "tiered retaining walls"
- introducing a maximum retaining wall height limit of 1.22 m (4 ft) with the provision for taller retaining walls adjacent to driveways and in sunken stairwells and window wells
- introducing a maximum slope of a 1 to 1.5 ratio (66.7%) for any tiered retaining walls with a minimum of 0.6 m (2 ft) of planted landscaping between the tiers.

These recommended changes will result in construction of lower-height retaining walls in setback areas that more closely follow the existing slope of the lot and more modest entrance features. The recommended changes may make it more challenging and costly to build on some sites, but will help ensure that buildings on sloped sites do not have an undue impact on the public realm or neighbours. There will remain the option for site-specific consideration of unique solutions through a variance application.

Since these proposed changes are significant, staff recommend that public engagement occur.

Recommendations

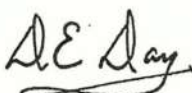
1. That Council direct staff to undertake public engagement related to proposed amendments to low density residential zones of the *Zoning Regulation Bylaw* that would:
 - (a) add definitions for "retaining wall" and "tiered retaining walls" to establish the meaning of these terms;
 - (b) introduce a maximum retaining wall height limit (1.22 m) with the provision for taller retaining walls adjacent to driveways and in sunken stairwells and window wells;
 - (c) introduce a maximum slope of a 1 to 1.5 ratio (66.7%) for any tiered retaining walls with a minimum of 0.6 m of planted landscaping between the tiers.
2. That staff report the results of the public engagement to the Governance and Priorities Standing Committee for consideration and further direction.

Respectfully submitted,



Ian Scott
Senior Planner
Development Services

At.



Deb Day
Director
Planning and Development



Peter Sparanese
General Manager
Operations

Report accepted and recommended by the City Manager: _____

Gail Stephens

IS:aw

1. Purpose

The purpose of this report is to provide Council with information, analysis and recommendations regarding the possibility of adding new regulations to the *Zoning Regulation Bylaw* (ZRB) that would limit retaining walls to a maximum height of 1.22 m. This is the second of four reports on a series of topics that relate to grade, landscaping and perception of building height on sloped sites.

2. Background

This report addresses issues related to the Phase 2 Zoning Regulation Bylaw Improvement Project, focused on "Grade Calculations in Low Density Residential Areas". Through this work, a number of interrelated issues, including issues pertaining to the construction of retaining walls and associated alterations of lot topography, were identified.

On sloped sites, significant alteration of land, facilitated with the construction of retaining walls, occurs for a variety of reasons including:

- providing outdoor living and gardening space
- providing access to basement areas
- providing pedestrian circulation from the building to the street or from the building to other areas of the lot
- providing raised side yard access to upper floors
- accommodating required driveway slope grades and basement garage access.

At present, the ZRB does not regulate the size or location of retaining walls. As a result, retaining walls are not subject to building setback or height regulations. Currently, the City's *Building Bylaw* requires a building permit for retaining walls 1.0 m or higher. Despite this existing Bylaw requirement, many retaining walls in the City of Victoria have been constructed without permit. Nonetheless, the building permit requirement addresses only structural issues and does not include any siting or height limitations.

3.0 Issues

The issues associated with retaining walls and associated alteration of lot topography include:

- retaining wall height and siting
- retaining wall definition
- retaining wall safety and drainage issues.

4.0 Analysis

4.1 Retaining Wall Height and Siting

There are currently no ZRB regulations which limit the maximum height of retaining walls or limit where on a lot they may be sited. As a result, the construction of large retaining walls has occurred without any evaluation as to the impact they may have on the public realm or adjacent properties. In some circumstances, retaining walls have facilitated extensive excavation and in other circumstances extensive berming. Not only can the retaining wall have an impact itself, but the construction of a retaining wall can raise the elevation of a lot's topography which can provide increased opportunity for overlook from any raised areas.



As demonstrated in the compendium report on *Grade Calculation in Low Density Areas*, neither berming nor excavation can be used to increase permitted building height. Nevertheless, construction of a new building that meets zoning height and setback requirements can have both visual impacts and create overlook issues. In this context, the question for analysis is to what degree the lack of regulations related to the siting and height of retaining walls in required yards creates additional issues that should be addressed.

Another study topic included in the Phase 2 - Zoning Regulation Bylaw Improvement Project list, that Council approved, was "Soil Deposition and Removal Regulations". The power for a municipality to regulate soil deposit and removal is provided by the *Community Charter*. Soil deposit and removal regulations are typically applied by municipalities to properties that are not associated with new building development. These regulations also typically deal with the volume of material that is added or removed from a site and these volume-based restrictions are not well-suited to addressing the issues of the final configuration of a lot after soil deposit or removal. If Council considers that it is advisable to regulate the degree to which the yards of low-density development sites can be raised or lowered, regulating the height of retaining walls is the most straightforward method for doing so.

The approach to regulating retaining walls in other municipalities ranged from no regulations to regulations that permit retaining wall heights up to 3.0 m high, depending on the siting and inclusion of landscaped screening. Based on this review, it is recommended that the public and development industry be consulted on the following new retaining wall height limits:

- 1.22 m (4 ft) retaining wall height limit as measured from natural grade and finished grade, with no siting restrictions and with the following exemptions
- 2.0 m (6.6 ft) height limit to finished grade for a retaining wall parallel to a driveway and within 3.0 m (9.8 ft) of a building face
- no height limit for a retaining wall facing a sunken stairwell or window well
- an overall slope ratio of 1 to 1.5 (66.7% or 36 7/8°) for tiered retaining walls, with a minimum 0.6 m landscaping strip between tiers.

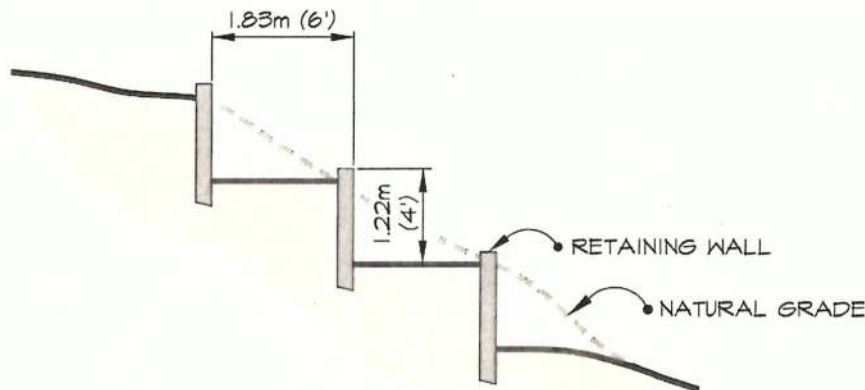
There would be no restriction on the siting of retaining walls that meet these proposed height restrictions.

These recommended retaining wall regulations are designed to provide for some consistency with other ZRB regulations and industry practices including:

- 1.22 m (4 ft) retaining wall is an industry standard for pre-fabricated systems
- 1.22 m (4 ft) is the current height limit for fences erected in a front yard

- 1.22 m (4 ft) is the maximum height established by many municipal zoning bylaws
- 1.22 m (4 ft) high retaining wall is a height of retaining wall which is recognized to not require structural engineering
- a slope ratio of 1 to 1.5 (66.7%) is used as the ratio for tiered retaining wall systems in other municipalities, including Oak Bay.

Figure 1: Illustration of tiered retaining walls and proposed maximum slope of ratio 1 (vertical) to 1.5 (horizontal).

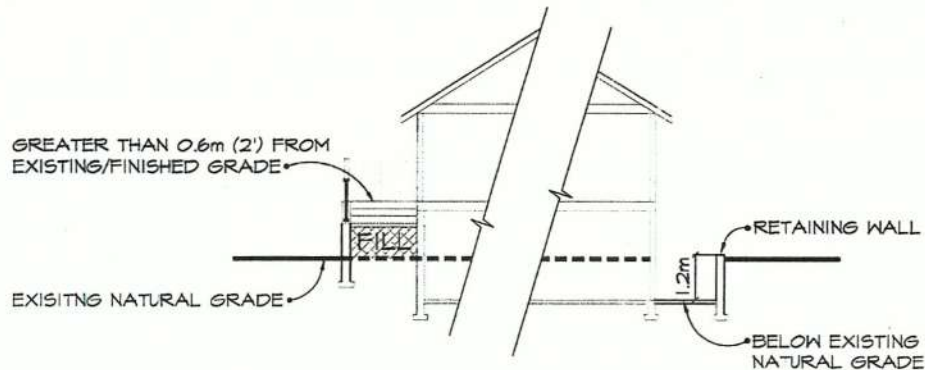


The proposed limits on retaining wall heights will require that house and landscape designers alter some of their practices. This will include considerations for the design of driveways for basement garages; of stairs and walkways to side doors; of outdoor spaces; stairs and walkways to front doors on sloping lots. Options still available include not siting the building right up to the setback line to provide space to build raised stairs outside the building; building smaller footprint homes; constructing detached rather than attached garages; and focusing on pedestrian circulation within buildings rather than providing more external pedestrian circulation options.

Staff have considered that part of the need for external circulation is to provide entrances to secondary suites, which are often in the basement or lowest level of a home. With the previously implemented changes to the ZRB that requires basement ceiling height to be no more than 1.2 m above average grade, it is inevitable that retaining walls will be necessary on many lots to provide direct access to these basement living spaces.

One of the outcomes of the proposed new regulations may be increased soil and rock removal related to side and rear entrances (see Figure 2). This may be the case because the recommended regulations make it more difficult than under existing regulations to build access to upper-floor levels (e.g. with raised stairs and walkways), but will permit excavation to allow lower floor entrances.

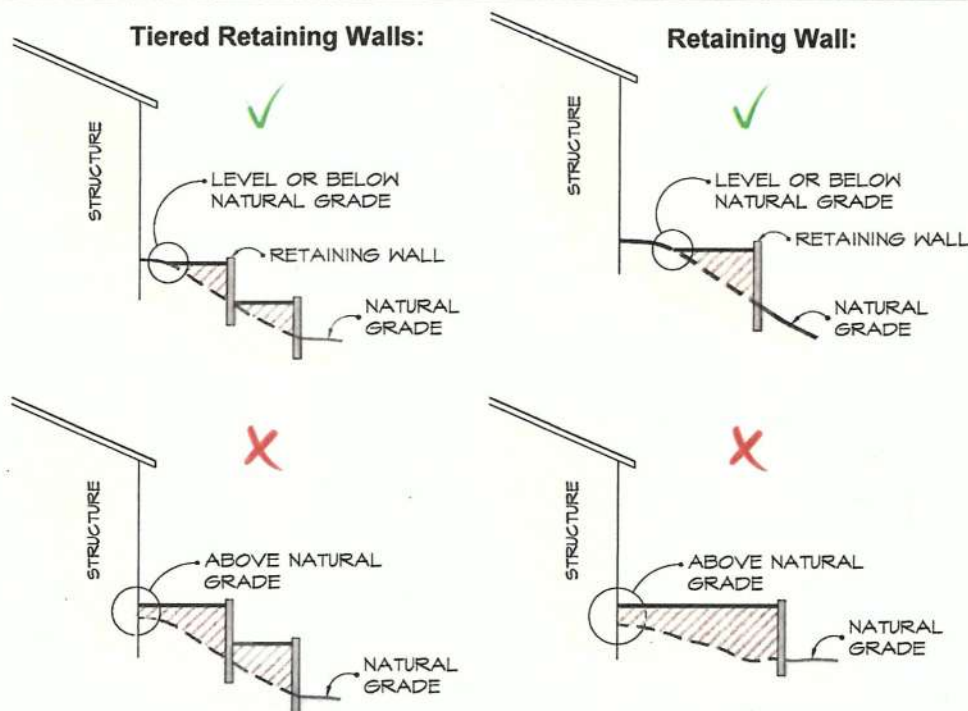
Figure 2: Illustration of raised and partially sunken entrances.



4.2 Retaining Wall Definition

Part of the issue is that walls are sometimes being constructed to raise the grade of the property and construct new built structures adjacent to buildings (e.g. raised patios) rather than truly *retaining* slopes. As such, staff is recommending a definition of “retaining wall” and “tiered retaining walls” (e.g. a series of retaining walls). These definitions would clarify that at least part of the area behind a retaining wall or at the top tiered retaining walls would need to be at or below natural grade (see Figure 3). This would exclude circumstances where a wall is used to raise the grade of land around a building to construct a raised patio or walkway. As such, whether it is a raised patio, raised walkway, deck or raised wooden stairway, these circumstances will be treated equally and need to meet ZRB setback requirements.

Figure 3: Illustration of definition of what constitutes a retaining wall or tiered retaining walls as compared to using walls as a method build extensions to buildings.



4.3 Retaining Wall Safety and Drainage Issues

As described above, the individual retaining wall height limit is a height which does not require professional engineering. Therefore, individual retaining walls built to be in compliance with the proposed ZRB requirements should not pose any safety issues provided they are built using normal construction methods. The existing *Building Bylaw* requires that a building permit be obtained for the construction of a retaining wall greater than 1.0 m in height that directly supports a building, but does not currently apply to a retaining wall (of any height) that is not associated with the building.

In the case of tiered retaining walls, retaining walls built within the maximum slope of 1 to 1.5 proposed by this report are recommended to be designed by a professional engineer based on engineering best-practices. However, unless the tiered retaining walls are associated with a building foundation then the City currently has no building permit requirement.

Staff are currently in the process of reviewing the Building Bylaw and will be considering how to most appropriately align the City's building regulations with any ZRB amendments that are implemented by Council.

The existing *Plumbing Bylaw* requires that impervious surfaces drain into a public storm sewer. However, some exemptions apply for single family dwelling and duplex lots, including driveway areas not larger than 40 m². The *Plumbing Bylaw* also specifies that stormwater cannot be directed onto an adjoining lot. In addition, where redevelopment occurs on a lot which is at a lower elevation than the adjacent lots, the *Plumbing Bylaw* requires the installation of a curtain drain. Where a building permit is required for a retaining wall or tiered retaining walls then drainage issues would be addressed through that process. Given the recommended individual retaining wall height limits and the circumstances in which this size of retaining wall will be constructed, the requirements of the *Plumbing Bylaw* that require a connection to a stormwater system will generally not apply.

5.0 Public Engagement

As the recommended amendments to the ZRB proposed in this report may have an impact on the public and property owners, it is recommended that members of the public and development professionals be engaged to review and comment.

The proposed engagement strategy would consult more extensively with those professionals in the construction and renovation industry who have experience designing buildings and sites that comply with the ZRB. For members of the public, the strategy would be to inform while providing opportunity for comment and feedback.

Staff recommends the following engagement activities:

1. Consultation meeting(s) with individuals representing the following groups:
 - Certified BC Land Surveyors
 - Architects
 - Landscape Architects
 - Geotechnical Engineers
 - House Designers
 - Homebuilders

- Developers
 - Realtors.
2. Publication on the City's website outlining the proposed changes and providing an opportunity to submit comments or fill out a survey online, in addition to written submissions.
 3. Letters to each of the Community Association Land Use Committees with an explanation of the proposed changes and inviting their comment.

6.0 Options

Option 1 (staff recommendation)

1. That Council direct staff to undertake public engagement related to proposed amendments to low-density residential zones of the *Zoning Regulation Bylaw* that would:
 - (a) add definitions for "retaining wall" and "tiered retaining walls" to establish the meaning of these terms;
 - (b) introduce a maximum retaining wall height limit (1.22 m) with the provision for taller retaining walls adjacent to driveways and in sunken stairwells and window wells;
 - (c) introduce a maximum slope of a 1 to 1.5 ratio (66.7%) for any tiered retaining walls with a minimum of 0.6 m of planted landscaping between the tiers.
2. That staff report the results of the public engagement to the Governance and Priorities Standing Committee for consideration and further direction.

Option 2

That Council receive the staff report Zoning Regulation Bylaw Improvement Project - Phase 2: Retaining Walls and Associated Alteration of Lot Topography for information and not proceed with landscape-related amendments to the *Zoning Regulation Bylaw*.

Option 3

That Council direct staff to prepare *Zoning Regulation Bylaw* amendments to the low-density residential zones, and to forward the *Zoning Regulation Bylaw* amendment bylaw for consideration at a Public Hearing, that would:

- (a) add definitions for "retaining wall" and "tiered retaining walls" to establish the meaning of these terms;
- (b) introduce a maximum retaining wall height limit (1.22 m) with the provision for taller retaining walls adjacent to driveways and in sunken stairwells and window wells;
- (c) introduce a maximum slope of a 1 to 1.5 ratio (66.7%) for any tiered retaining walls with a minimum of 0.6 m of planted landscaping between the tiers.

7.0 Resource Impacts

It is expected that, if implemented, the proposed changes to the ZRB will have the following resource impacts:

Impact on the public:

- Owners and developers will need to work more within the natural grade levels of a property. On some sites this may increase development costs.
- Requirement for more complete site grading and retaining wall information will add to the cost of preparing building permit applications in terms of survey costs and production of grading plans. Currently, grading issues are typically not an element that is considered in much detail until later in the construction process.
- Some property owners and developers may have to make a variance application.

Impact on City staff time:

- Review of building permits and associated grading plans will require more staff time.
- Validation of works on-site to ensure compliance with bylaws and plans will require staff to conduct more frequent site visits.
- There are approximately 30 applications per year for new single-family and duplex homes, which would be the primary focus of these new regulations. However, for the majority of these applications, the existing site topography means that the new regulations will have minimal impact. For some applications, the new regulations may lead to slightly longer permit processing periods. Over the past few years, staff has had to spend a large amount of time on a few files due to issues related to grade and height calculations and alteration of lot topography. Staff expects that the process of requiring concept grading plans at the building permit stage will lead to identification of grading issues earlier in the building process, which will result in reduced demands on staff time in the long run.

8.0 Conclusions

The alteration of land is a required component of new building construction. This report identifies that the ZRB does not limit the height of retaining walls, which has resulted in the construction of some large retaining walls, causing concern. Retaining wall height limits are a feature in many B.C. municipalities and staff recommends the implementation of similar retaining wall height limits in the City's ZRB. This report also recommends a definition of "retaining wall" and "tiered retaining walls" that will ensure that retaining walls are associated with retaining slopes and not used as a technique to avoid building setback regulations.

The proposed new regulations will be a significant change when compared to how some recent projects have been constructed, and will require designers and builders to work more with the existing topography of the lot. House and landscape designers may need to alter some of their practices for designing driveways, side and rear door entrances, outdoor living spaces and front door access. However, many options are still available. Where unique circumstances exist, an application for a variance is also an option.

9.0 Recommendations

1. That Council direct staff to undertake public engagement related to proposed amendments to low-density residential zones of the *Zoning Regulation Bylaw* that would:
 - (a) add definitions for "retaining wall" and "tiered retaining walls" to establish the meaning of these terms;
 - (b) introduce a maximum retaining wall height limit (1.22 m) with the provision for taller retaining walls adjacent to driveways and in sunken stairwells and window wells;
 - (c) introduce a maximum slope of a 1 to 1.5 ratio (66.7%) for any tiered retaining walls with a minimum of 0.6 m of planted landscaping between the tiers.
2. That staff report the results of the public engagement to the Governance and Priorities Standing Committee for consideration and further direction.



DECISION REQUEST REPORT

Governance & Priorities Standing Committee

DATE: October 29, 2012

PREPARED BY: Ian Scott, Senior Planner

ENDORSED BY: Deb Day, Director, Planning and Development

SUBJECT: **Zoning Regulation Bylaw Improvement Project – Phase 2**
Patios, Stairs and other Hard-Surfaced “Landscaping” Features

Executive Summary

The purpose of this report is to provide Council with information, analysis and recommendations to consider amendments to the *Zoning Regulation Bylaw* to modify the definitions for “site coverage” and “landscaping” and to introduce minimum soft landscaping requirements for low density residential areas. This is the third of four reports on a series of topics that relate to grade, landscaping and perception of building height on sloped sites.

Currently, hard-surfaced elements such as stairs, patios and walkways are considered landscaping elements that are not subject to *Zoning Regulation Bylaw* setback and site coverage regulations. Where hardscaping becomes a dominant element of a yard, this can appear to “extend” the building and emphasize any changes that may have occurred to the lot’s topography or the perceived impacts of the massing of the new building. This phenomenon is particularly pronounced on a sloped site but can also be observed on a relatively flat site.

Staff have analyzed these issues as they relate to significant landscape changes, examined approaches used in other municipalities and recommend the following amendments to the *Zoning Regulation Bylaw* for low density residential zones:

- amended definition of “site coverage” to include only elements covered by a roof or greater than 0.6 m (2 ft) in height from finished grade or natural grade
- amended definition of “landscaping” to include only surfacing of the lot and stairs no higher than 0.6 m (2 ft) from finished grade or natural grade
- introduction of minimum “soft landscaping” requirements for the front yard, the lot as a whole and rear yard of some zones
- defining “soft landscaping” to include natural areas or areas with a minimum of 50% planted vegetation.

The proposed modified site coverage regulations and inclusion of minimum soft-landscaping regulations will assist with better integration of new development in low density residential areas with established character. In addition, the proposed soft-landscaping requirements will have a positive effect on maintaining green space in low density residential areas and potentially improve the quality of stormwater generated from these sites. However, these new regulations would be a significant departure from current practices and may be seen as overly intrusive by some.

Since the proposed changes are a departure from past practices, public engagement is recommended.

Recommendation

1. That Council direct staff to undertake public engagement related to proposed amendments to low density residential zones of the *Zoning Regulation Bylaw* that would:
 - amend the definition of "site coverage" to include only elements covered by a roof or greater than 0.6 m (2 ft) in height from finished grade or natural grade
 - amend the definition of "landscaping" to include only surfacing of the lot and stairs no higher than 0.6 m (2 ft) from finished grade or natural grade
 - introduce minimum "soft landscaping" requirements, defined as natural areas or areas with soil planted with vegetation, for the front yard, the lot as a whole and rear yard of some zones
 - define "soft landscaping" to include natural areas or areas with a minimum of 50% planted vegetation.
2. That staff report the results of the public engagement to the Governance and Priorities Standing Committee for consideration and further direction.

Respectfully submitted,



Ian Scott
Senior Planner
Development Services



Alt. Deb Day
Director
Planning and Development



Peter Sparanese
General Manager
Operations

Report accepted and recommended by the City Manager: _____

Gail Stephens

IS:aw

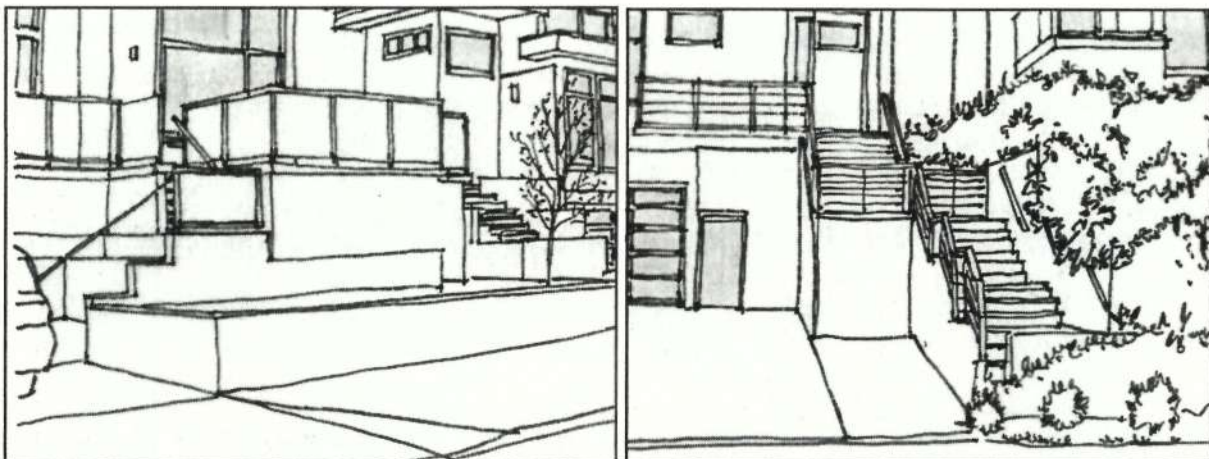
1. Purpose

The purpose of this report is to provide Council with information, analysis and recommendations regarding the possibility of amending the *Zoning Regulation Bylaw* (ZRB) to modify the “site coverage” and “landscaping” definitions and to introduce soft-landscaping standards for low-density residential areas. This is the third of four reports on a series of topics that relate to grade, landscaping and perception of building height on sloped sites.

2. Background

This report addresses issues related to the Phase 2 Zoning Regulation Bylaw Improvement Project focused on “Grade Calculations in Low Density Residential Areas.” Through this work, a number of interrelated issues, including issues pertaining to the construction of retaining walls and associated alterations of lot topography, were identified.

Construction of hard-surfaced patios, stairs, walkways and other landscaping features have not been subject to regulations for building setbacks, maximum site coverage or minimum open site space. In recent years, this has led to the construction of larger hard-surfaced (typically concrete) stairs and raised patios. This trend has occurred in part to avoid minimum setback and site coverage regulations that apply to wood stairs and decks.



3.0 Issues

The issues associated with patios, stairs and other hard-surfaced “landscaping” features include:

- site coverage and landscaping definitions
- soft landscaping standards.

4.0 Analysis

4.1 Site Coverage and Landscaping Definition

The ZRB definitions for “site coverage” and “building” have been interpreted for some years by staff as excluding any hard-surfaced feature such as concrete stairs and patios provided they were no higher than 1.52 m (5 ft). The need to make this interpretation results from the fact that

the term “structure” included in the “site coverage” definition and the term “landscaping”

included in the “building” definition are not defined by the ZRB. As a result, these elements are currently not subject to either site coverage or setback regulations. In contrast, wooden stairs and decks are interpreted to be subject to both site coverage and setback regulations because they were not construed as being part of the landscaping of a site and are considered part of a structure. This interpretation was established at a time when the cost of construction with concrete and other hard-surfaced materials dissuaded most builders and homeowners from building large hard-surfaced structures. Over time, this distinction has resulted in larger hard-surfaced (typically concrete) stairs and raised patios, which are not subject to minimum setback and maximum site coverage regulations.

The discrepancy with one set of regulations applying if constructed out of wood and a different set of rules applying if constructed out of a concrete is not appropriate when the form and function are identical. However, there are other cases when hard-surface stairs, patios and walkways have very different form and function and applying the existing regulations for wooden stairs and decks would not be appropriate. This includes:

- stairs and walkways located within yards on sloped lots that allow for gentle and more subtle transitions between the street level or driveways and building entrances
- small sets of stairs designed to blend into other parts of the landscaping
- at-grade or sunken patios, stairs and walkways
- patios behind retaining walls that blend with the natural grade on one or more sides.

In practice, sloped lots often have a mix of stairs, landings, walkways, decks and patios, some of which may be supported on at least one side by a retaining wall. It is challenging to determine and define which elements are extensions of the building versus which elements are simply providing an outdoor living space or pedestrian access over sloped terrain.

In terms of modifying existing definitions, the following ZRB amendments are recommended:

- redefining “site coverage” to include only those parts of the building below a roof or any uncovered structure higher than 0.6 m (2 ft) from finished grade and natural grade, and excluding any features constructed at finished grade behind a retaining wall; and
- defining “landscaping” to include any feature, regardless of material, built on finished grade or any stairs, regardless of material, no higher than 0.6 m (2 ft) from finished grade or natural grade.

Figure 1 illustrates how the existing and proposed regulations pertaining to site coverage and setbacks apply on a site. Under existing conditions, uncovered decks are subject to site coverage, while uncovered patios are not. Under the new proposed regulations, it is the height of these features from natural grade and finished grade that is the important characteristic. On first examination, the proposed new regulations appear to open up the possibility for the construction of new decks, patios and stairs that were previously not permitted. However, given the existing interpretation of the ZRB definitions which places few limits on the construction of these elements if hardscaped, the proposed new regulations will actually reduce the scale of hard-surfaced features that may be constructed and limit their placement in setback areas. Even though low-height, uncovered wooden decks or stairs could be constructed to a greater

extent than currently, the proposed regulations will reduce the opportunity for the construction of hard-surfaced features.

Figure 1: Illustration of how existing and proposed site coverage (shaded areas) and setback regulations apply under the existing ZRB regulations and the proposed ZRB regulations.

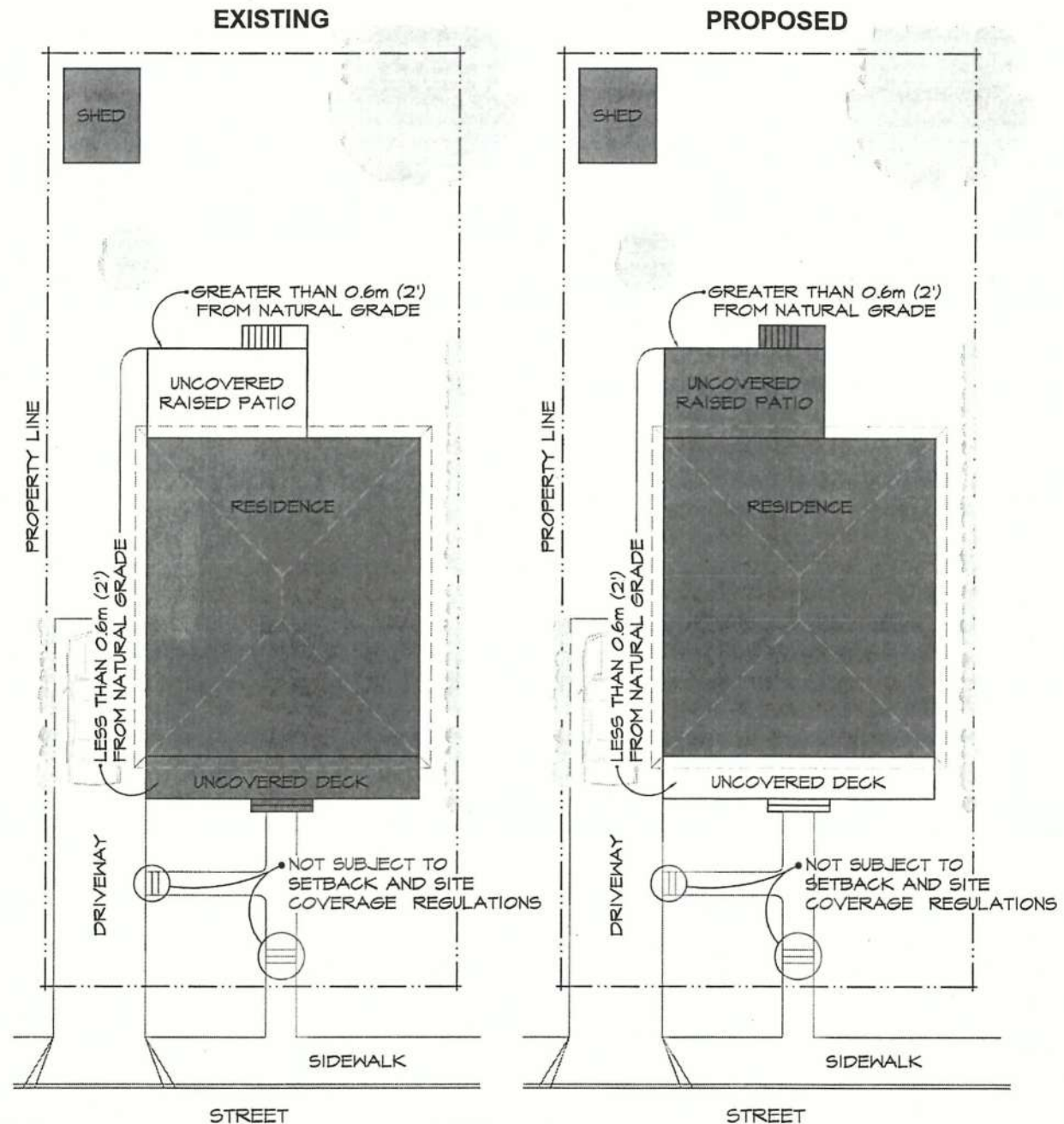


Figure 2 illustrates how these regulations will be applied to a sloping lot and to retaining walls. Where an uncovered patio is built in an area where grade has been raised adjacent to a building, it is subject to setback requirements and, if greater than 0.6 m (2 ft) in height, it will also be considered part of the site coverage. This is exactly how a wooden deck would also be treated. However, on a sloping site where a retaining wall has been used to flatten a site, then

an uncovered patio built at finished grade behind this retaining wall would not be subject to setback requirements and would not be considered part of site coverage.

Figure 2: Shaded areas below represent components that would be subject to site coverage regulations under the proposed new ZRB regulations. Any raised patio is subject to minimum setback regulations, while a patio built behind a retaining wall at finished grade is not.

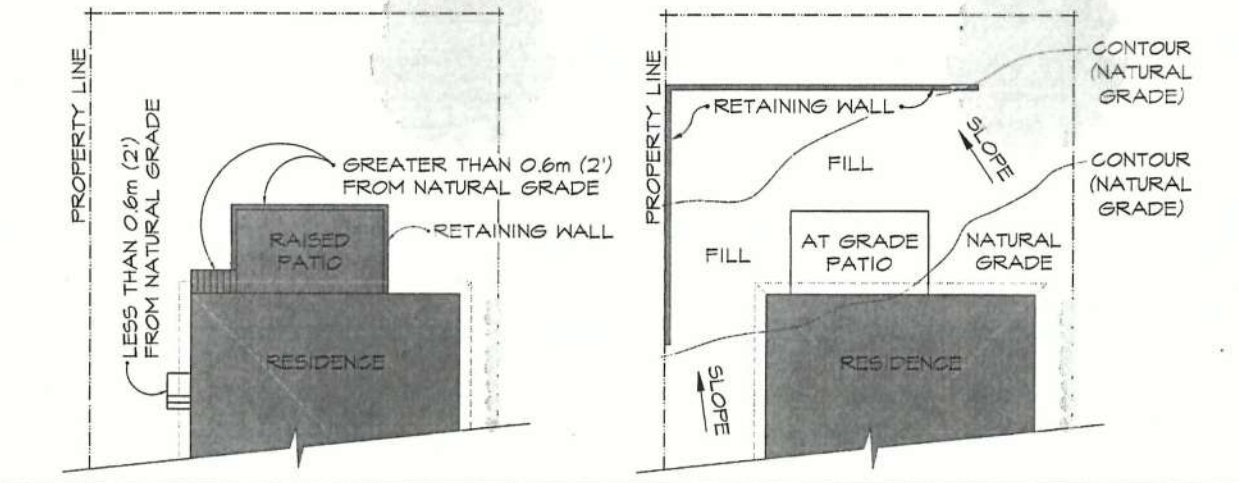
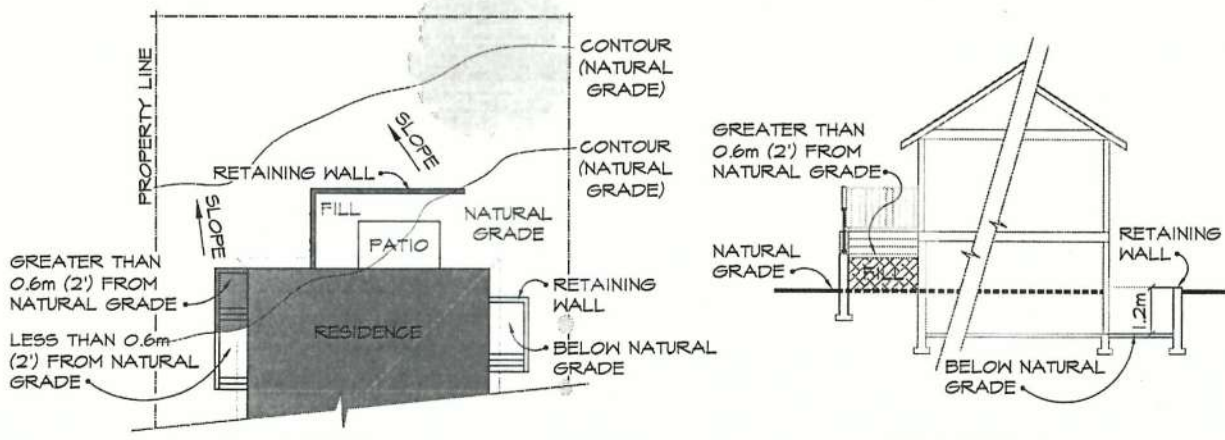


Figure 3 details how the proposed new ZRB amendments would apply to stairs. Where a retaining wall (1.22 m [4 ft] high or less) is constructed to facilitate on-site excavation, then minimum setback requirements and site coverage maximums would not apply. In contrast, where a wall is used to build landings or stairs higher than 0.6 m (2 ft), for example to gain access to an upper level, then both setback and site coverage requirements apply. Any walkways at or below natural grade and stairs that are less than 0.6 m (2 ft) high are not subject to minimum setback requirements and are not included in site coverage.

Figure 3: Any landings above natural grade and stairs higher than 0.6 m (2 ft) are subject to minimum setback requirements and are included in site coverage. In contrast, where these features are at or below finished grade, or where the stairs are not higher than 0.6 m (2 ft), then minimum setback and maximum site coverage requirements do not apply.



The 0.6 m (2 ft) height limit above finished grade means that, in most circumstances, a guard or rail would not be required by the *BC Building Code* for the decks, stairs, walkways and patios built under these new regulations. Structures with railings or guards are more visually intrusive and do not appear as low-scale, landscaping elements. However, in some cases they will still be required for safety purposes or at the landowner's choice.

Table 1 summarizes the combined effect of the proposed amended “site coverage”, “landscaping” and new retaining wall definitions and height limits (discussed in the companion report on retaining walls).

Table 1: Combined effect of proposed amendments to site coverage, landscaping and new retaining wall definition and height limits.

	Included in Site Coverage	Subject to Setback Requirements
Retaining walls 1.22 m (4 ft) or less	NO	NO
Lawns, gardens, driveways, patios, walkways at finished grade, including finished grade behind retaining walls	NO	NO
Stairs 0.6 m (2 ft) high or less	NO	NO
Uncovered patios, decks, walkways, landings 0.6 m (2 ft) high or less	NO	YES
Roofed areas of buildings, covered structures and any uncovered stairs, decks, patios, walkways and similar structures greater than 0.6m (2 ft) high.	YES	YES

4.2 Soft Landscaping

Despite the definition changes recommended in the preceding section, it will still be possible to cover significant portions of a lot with hard surfacing. Hard surfacing of yards can emphasize the extent of development and large building massing. One solution may be to include minimum soft landscaping requirements within low density zones. This approach would align with some of the other initiatives of the City, including encouraging green development, the Stormwater Utility project and implementation of landscape standards (another Phase 2 Zoning Regulation Bylaw Improvement Project component which has not been commenced). Requiring minimum soft landscaping through zoning has been used in other B.C. and Canadian municipalities.

Currently, there are minimum open-site space requirements in the low density residential R1-G Zone and R-2 Zone. However, hard-surfaced elements such as walkways, concrete stairs or patios fit within the current definition of open site space. As a result, minimum open-site space requirements do not achieve much more than minimum building setback requirements. Switching to require a minimum amount of planted soft landscaping for a property as a whole and specifically for the front yard has a number of advantages, including:

- limiting the amount of hard-surfaced areas for sloped and level properties alike
- having more landscaping which tends to soften the appearance of new buildings
- providing greater opportunity for rainwater infiltration, which aligns with the City's sustainable rainwater management and climate change goals

- aligning the ZRB more closely with the permeable/non-permeable surface approach of the proposed Stormwater Utility being considered for implementation.

Soft landscaping would be defined as those areas covered by natural, undisturbed land or areas planted with a minimum of 50% vegetation. This may include such features as grasscrete paving systems which are typically more than 50% void space with soil. However, it would not include elements such as pavers, gravel or permeable concrete. Staff examined a number of different properties in each of the low density residential zones to establish the recommended minimum soft landscaping standards as outlined in Table 2.

Table 2: Proposed minimum soft landscaping requirements for low density zones and remaining percentage of the lot that could be hard-surfaced. Where the maximum site coverage allotment is not used then there would be additional space available for hard-surfaced elements.

	R1-B	R1-G	R1-S2	R-2	R1-A
Minimum Soft Landscaping (%)	35	45 ¹	35	30	50
Minimum Front Yard Soft Landscaping (%)	50	50	50	40	60
Existing Maximum Site Coverage (%)	40	30	40	40	40
Maximum percentage of hard-surfaced lot area when <u>site coverage is maximized</u>	25	25	25	30	10

1. Replaces existing minimum open site space requirement of 50%

While the regulation of soft landscaping would address some of the issues raised with regard to new developments, it does have some limitations. Firstly, it may be viewed by some as a regulation that intrudes too much into individual use of property and individual preferences with respect to aesthetics, yard care and use of outdoor space. Secondly, landscaping is an element that requires no permit for a property owner to alter. As such, while there will be some opportunity at the building permit stage for new developments to confirm compliance with the soft landscaping requirements, compliance will be voluntary and any bylaw enforcement would be complaint-driven. Thirdly, as a new zoning regulation, the legal non-conforming provisions of the *Local Government Act* would apply. As such, an existing baseline would need to be established based on aerial photography or satellite imagery. The City does have access to these resources, but staff have not yet evaluated to what degree additional work may be required for this purpose.

5.0 Public Engagement

As the recommended amendments to the ZRB proposed in this report would potentially have a significant impact, staff recommends that both the public and professionals involved in development be engaged to review and comment on the proposals.

The recommended ZRB amendments related to “site coverage” and “landscaping” are relatively technical in nature. For these elements, the recommended scope of public engagement should be similar to that proposed for the new retaining wall regulations and definitions, and consist of an engagement strategy that would include more extensive consultation with members of the construction and renovation industry who have experience designing buildings and sites that comply with the ZRB. However, for the soft landscaping regulations, more extensive public engagement strategies are recommended.

Staff recommends the following engagement activities:

- Consultation meeting(s) with individuals representing the following groups:
 - Certified BC Land Surveyors
 - Architects
 - Landscape Architects
 - Geotechnical Engineers
 - House Designers
 - Homebuilders
 - Developers
 - Realtors.
- Publication on the City's website outlining the proposed changes and providing an opportunity to submit comments or fill out a survey online, in addition to written submissions.
- Letters to each of the Community Association Land Use Committees with an explanation of the proposed changes and inviting their comment.
- Convening a Public Open House, particularly related to the soft landscaping regulations.

6.0 Options

Option 1 (staff recommendation)

1. That Council direct staff to undertake public engagement related to proposed amendments to low density residential zones of the *Zoning Regulation Bylaw* that would:
 - amend the definition of “site coverage” to include only elements covered by a roof or greater than 0.6 m (2 ft) in height from finished grade or natural grade
 - amend the definition of “landscaping” to include only surfacing of the lot and stairs no higher than 0.6 m (2 ft) from finished grade or natural grade
 - introduce minimum “soft landscaping” requirements, defined as natural areas or areas with soil planted with vegetation, for the front yard, the lot as a whole and rear yard of some zones
 - define “soft landscaping” to include natural areas or areas with a minimum of 50% planted vegetation.
2. That staff report the results of the public engagement to the Governance and Priorities Standing Committee for consideration and further direction.

Option 2

That Council receive the staff report Zoning Regulation Bylaw Improvement Project – Phase 2: Patios, Stairs and Other Hard-Surfaced “Landscaping” Features for information and not proceed with landscape-related amendments to the *Zoning Regulation Bylaw*.

Option 3 (limited change)

1. That Council direct staff to undertake public engagement related to proposed amendments to low density residential zones of the *Zoning Regulation Bylaw* that would:
 - amend the definition of “site coverage” to include only elements covered by a roof or greater than 0.6 m (2 ft) in height from finished grade or natural grade
 - amend the definition of “landscaping” to include only surfacing of the lot and stairs no higher than 0.6 m (2 ft) from finished grade or natural grade.
2. That staff report the results of the public engagement to the Governance and Priorities Standing Committee for consideration and further direction.

Option 4

That Council direct staff to prepare the necessary *Zoning Regulation Bylaw* amendments and forward the amendment bylaw for consideration at a Public Hearing, which would:

- amend the definition of “site coverage” to include only elements covered by a roof or greater than 0.6 m (2 ft) in height from finished grade or natural grade
- amend the definition of “landscaping” to include only surfacing of the lot and stairs no higher than 0.6 m (2 ft) from finished grade or natural grade
- introduce minimum “soft landscaping” requirements, defined as natural areas or areas with soil planted with vegetation, for the front yard, the lot as a whole and rear yard of some zones
- define “soft landscaping” to include natural areas or areas with minimum 50% planted vegetation.

7.0 Resource Impacts

It is expected that, if implemented, the proposed changes to the ZRB will have the following resource impacts:

Impact on the public:

- Owners and developers will need to work more within the natural grade levels of a property. On some sites this may increase development costs.
- Requirement for more complete site grading information will add to the cost of preparing the Building Permit Applications in terms of survey costs and production of grading plans. Currently, grading issues are typically not an element that is considered in much detail until later in the construction process.
- Some property owners and developers may have to make a variance application.

Impact on City staff time:

- Review of building permits and associated grading plans will require more staff time.
- Validation of works on-site to ensure compliance with bylaws and plans will require staff to conduct more frequent site visits.

- These changes, as compared to those recommended in the companion retaining wall report, will likely generate more inquiries.
- There are approximately 30 applications per year for new single-family and duplex homes, which would be the primary focus of these new regulations. However, some renovation projects will also need to consider the new regulations. For some applications, the new regulations may lead to slightly longer permit processing periods.
- The new regulations will primarily be enforced through bylaw complaints and, where these occur, would increase the workload for bylaw enforcement staff.

8.0 Conclusions

Construction of stairs, walkways, decks and patios are an integral part of the use of land for residential purposes. In recent years, there have been examples where the current ZRB interpretation of what constitutes a structure or landscaping has resulted in large and extensive examples of hard-surfaced patios, walkways and stairs. This report recommends definition change and new, minimum soft landscaping requirements, which will result in less extensive hard surfacing of lots.

With these new regulations, house and landscape designers may need to alter some of their designs for entrances, outdoor living spaces and yards. However, options are available to the homeowner, including not siting the building right up to the required setback lines, building smaller footprint homes and focusing on internal building circulation rather than providing so many external circulation options. Where unique circumstances exist, an application for a variance is also an option.

Staff is also recommending that more extensive community consultation be undertaken related to the potential establishment of minimum soft landscaping requirements in low density residential zones. These requirements would represent a more significant change to the ZRB but would address issues related to the extensive hard surfacing of property and resulting lack of the softening benefits of planted landscaping.

9.0 Recommendation

1. That Council direct staff to undertake public engagement related to proposed amendments to low density residential zones of the *Zoning Regulation Bylaw* that would:
 - amend the definition of “site coverage” to include only elements covered by a roof or greater than 0.6 m (2 ft) in height from finished grade or natural grade
 - amend the definition of “landscaping” to include only surfacing of the lot and stairs no higher than 0.6 m (2 ft) from finished grade or natural grade
 - introduce minimum “soft landscaping” requirements, defined as natural areas or areas with soil planted with vegetation, for the front yard, the lot as a whole and rear yard of some zones
 - define “soft landscaping” to include natural areas or areas with a minimum of 50% planted vegetation.
2. That staff report the results of the public engagement to the Governance and Priorities Standing Committee for consideration and further direction.

Sept. 18th, 2013 Open House Survey Feedback

Thirteen people attended the September 18, 2013 Open House, 7 of completed surveys. The following feedback was provided to survey questions:

Average Height and Grade Calculations

1) Do you think that adding definitions for "finished grade" and "natural grade" add clarity to determining building height? Yes or No. Comments?			
Designers	Residents	UDI	Other
<ul style="list-style-type: none"> • Yes • Yes. Definitions are always helpful • Yes. I agree it will help clarify 	<ul style="list-style-type: none"> • Yes • Yes, add definitions, Historic grade needs to be recorded and retained. Needs requirement for a current survey if there is any indication the grade has been modified or manipulated over time 	<ul style="list-style-type: none"> • Yes. Agree with the incorporation of the proposed definitions to offer clarity is a prudent amendment 	<ul style="list-style-type: none"> • Yes, good idea, will ensure no ambiguity

Retaining Walls

2) Do you think the City should regulate the height and scale of retaining walls? Yes or No. Comments?			
Designers	Residents	UDI	Other
<ul style="list-style-type: none"> • No. Or maybe impose a max height of 6ft (fence height). • No- Guidelines might be useful, but they are landscape and unless they connect with the house foundations or connected patios, can remain as "landscape" • Yes. Up to 4' "exposed" wall. 4' OK apart/not[?] from existing or natural. 	<ul style="list-style-type: none"> • Yes • Yes! Absolutely necessary to protect the privacy properties and to protect the integrity of the streetscape and public realm 	<ul style="list-style-type: none"> • Yes, with the exceptions notes (adjacent to driveways, sunken stairways, window wells). 	<ul style="list-style-type: none"> • Yes. In many cases may not be required but in extreme/excessive situation regulation will be useful. Proposed height of 1.2m is an appropriate number

Sept. 18th, 2013 Open House Survey Feedback

Just exposed finished.			
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3) Does the proposed limit for retaining walls of 1.22 m (4 ft) in height seem about right? Yes or No. If no, what do you think the limit should be?

Designers	Residents	UDI	Other
<ul style="list-style-type: none"> No, 6ft. This varies with every site. Yes. See #2 [which said: "Yes. Up to 4' "exposed" wall. 4' OK apart most from existing or natural. Just exposed finished."] 	<ul style="list-style-type: none"> Yes. Height Regulation seems to be about equal to that for fences, seems equitable. No. Given that fences are restricted to 6 ft in height a 4 ft retaining wall's overview negates the privacy a fence should afford. Retaining walls height should be predicated on retaining privacy in adjacent properties. The rational for choosing 4 ft is weak, as is the lack of requirements for structured engineering. 	<ul style="list-style-type: none"> NO. I feel 5 feet would be more appropriate as to match the current regulations governing the maximum height of a concrete landscaping element in a yard. 	<ul style="list-style-type: none"> Yes, with tiered landings of 0.6m minimum.

4) Does the proposed maximum slope ratio of 1 (vertical) to 1.5 (horizontal) for tiered retaining walls seem about right? Yes or No. If no, what do you think the limit should be?

Designers	Residents	UDI	Other
<ul style="list-style-type: none"> 6 vertical, 2 horizontal Yes. "Yes. Up to 4' "exposed" wall. 4' OK apart most from existing or natural. Just exposed finished." 	<ul style="list-style-type: none"> Yes. Not too steep, sounds logical No. This leads to building pyramid structures. The minimal limit should be 1:2 	<ul style="list-style-type: none"> Yes 	<ul style="list-style-type: none"> Yes

Sept. 18th, 2013 Open House Survey Feedback

5) Do you have any other ideas about how the city could regulate retaining walls?			
Designers	Residents	UDI	Other
<ul style="list-style-type: none"> It will most often be an engineering issue Above a certain height, a structural P.Eng. should be involved. I would suggest a 6'0" +/-2m I feel this will accomplish the intent. 	<ul style="list-style-type: none"> No comment "Normal construction standard" is vague. All retaining walls should require an engineer's certificate, given our high-probability earthquake zone. The City should require retrospective engineering reviews of all retaining walls over 4 ft. drainage and water flow must be addressed so there is no impact on adjacent properties 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> The ability to send to ADP, if required, might be helpful. Note: extreme circumstances which would provide staff with independent opinion.

Hard Surface Landscape Structures

6) Do you think the City should regulate hard landscape structures? Yes or No. Comments?			
Designers	Residents	UDI	Other
<ul style="list-style-type: none"> No Yes for permeability & stormwater management. Yes. Only on rear yards & front yards. Max 50% unless front & rear yards are under a certain size, then not at all. ie: R1-S2 	<ul style="list-style-type: none"> Yes Yes. Hard landscaping is increasing the building foot print 	<ul style="list-style-type: none"> No. It is unduly restrictive to homeowner rights as well as individual preference for landscaping treatment. 99% of homeowners act responsibly. Don't create regulation for the 1% which will have unintended negative consequences for the 99% 	<ul style="list-style-type: none"> Yes

Sept. 18th, 2013 Open House Survey Feedback

7) Does the proposed limit of making hard landscape structures that are over 0.6m (2 ft) above grade subject to building setback and site coverage restrictions seem about right? Yes or No. If no, what do you think it should be? Comments?

Designers	Residents	UDI	Other
<ul style="list-style-type: none"> No. 4' 2'0" is fine (site depending) No. The existing concrete exemption is adequate. 	<ul style="list-style-type: none"> Yes No. Even at 2 ft it can impact neighbour's privacy. Tiering would respect adjacent properties privacy 	<ul style="list-style-type: none"> No. 5 feet appears a far more appropriate threshold. A patio railing is never <2 feet. See comments re: #6 on homeowner rights/preferences. [said it is unduly restrictive to large number for small number of issues] 	<ul style="list-style-type: none"> Yes, 0.6m is the 'correct' number... as pointed out in your report, surfaces greater than 0.6m will require guardrails, which will visually raise the height thus justify regulation.

8) Do you have any other ideas about how the city could regulate hard landscape structures?

Designers	Residents	UDI	Other
<ul style="list-style-type: none"> See point #6 [which said: "Yes for permeability & stormwater management."] No. It's really not as big a problem as this appears. 	<ul style="list-style-type: none"> No comment 	<ul style="list-style-type: none"> No new regulations required on this topic. Potential for unintended negative consequences is significant and scope of the existing problem is minor. 	<ul style="list-style-type: none"> Very tough to craft one formula that will be fair and logical for all situations, as your photo board highlights. Perhaps require landscape architect if certain percentage is desired.

Sept. 18th, 2013 Open House Survey Feedback

Minimum Soft Landscaping Standards

9) Do you think the City should regulate Soft Landscaping? Yes or No. Comments?			
Designers	Residents	UDI	Other
<ul style="list-style-type: none"> No No- except for weed mitigation. However, we will need to change fence bylaws to stop deer (much higher than current). No. This is beyond Bylaw. Some personal choice should be okay. 	<ul style="list-style-type: none"> Yes Yes – for exactly the reasons outlined: better integration in low density residential areas, maintaining Greenspace, and improved stormwater retention. We like higher R1-A minimum soft landscaping as it supports the Rockland Neighbourhood Plan 	<ul style="list-style-type: none"> No. See comment on point #6 re: homeowner rights/individual preference. 	<ul style="list-style-type: none"> Same as above [said it would be tough to do uniformly]... perhaps try and work with the applicant if a situation seems extreme, some applicants (most) will likely listen while a few will dig in and refuse change... or require a landscape architect be involved if the 50% is not met.

Pictures: Yes/ No. From the pictures below, you can see that introducing a requirement to maintain a minimum of 50% of a lot's open space with natural or planted vegetation poses some regulatory challenges. Please tell us whether you think the following examples would meet the proposed standard. Circle yes if you think it would meet the minimum, no if it would not.



Yes: 3 No: 2



Yes: 4 No: 1



Yes: 2 No: 2 Not Sure: 1



Yes: 2 No: 3



Yes: 5 No: 0



Yes: 3 No: 2

Sept. 18th, 2013 Open House Survey Feedback

10) Do you have any other suggestions about how the City could regulate soft landscaping?

Designers	Residents	UDI	Other
<ul style="list-style-type: none"> Any permeable surface is soft landscape except asphalt. 	<ul style="list-style-type: none"> No comment The City should enable higher fencing for deer damage protection 	<ul style="list-style-type: none"> No comment 	<ul style="list-style-type: none"> Possibly based on an average of adjacent properties.

10) Would you support the regulation of soft landscaping on your property? Yes or No. Comments:

Designers	Residents	UDI	Other
<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Yes Yes, as President and Vice-President of the Rockland Neighbourhood Association we would support it on our properties 	<ul style="list-style-type: none"> No 	<ul style="list-style-type: none"> Yes

General

Other Comments/Questions:

Designers - Regulations should be clear and concise.

Rockland Community Association – With regard to Phase 2 – Perceived Building Heights on sloped sites, the mass of several new buildings in Rockland has been of great concern to the neighbourhood. In the past, large homes had breathing space, which is no longer so. Therefore, the RNA is on record requesting a floorspace ratio as in R1-G, which would help to address perceived height.



October 30, 2013 - Focus Group Notes

Notes taken from the discussion at a Focus Group held on October 30, 2013:

Retaining Walls

- Generally ratio seems okay
- Landscape Architect would like to see more flexibility in maximum if the overall slope meets a certain grade
- Could be too restrictive for smaller properties
- Downside impacts most important – landscaping is important and visual screening
- Think about a maximum cumulative height restriction
- Concern about how more regulation limits the use of land and affects housing affordability
- Possible design review that would allow staff to approve plans
- Don't add to process by making the regulations so cumbersome that it forces everything through a variance process
- Rockland thinks 4 feet is too high
- Concern over seismic stability and drainage

Hard Surfaced Landscape Structures

- Questions over what constitutes a structure
- More regulation adds to time and process and cost of housing
- This is more about design. Establish a design review with staff having the ability to approve plans
- Recommended regulations seem reasonable
- Don't differentiate between wood and concrete

Soft Landscaping

- Permeability is an important concern and should be encouraged
- Concerns about over regulation and how you would enforce or administer it
- More important for the front yard rather than the rear yard – some municipalities require a certain percentage of the front yard to be "landscaped" (50%?)
- How do you control design or "good taste"?
- Design review?
- Rockland Neighbourhood supports regulating landscaping