

AGENDA INFORMATION

- Council Workshop Date: _____
- Finance & Audit Date: _____
- Advisory Oversight Date: _____
- Other: **SPECIAL MEETING** Date: **NOVEMBER 23, 2020**

 Dept. Manager	 GM/ Director	 for CAO
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**The District of North Vancouver
REPORT TO COUNCIL**

November 10, 2020
File: 13.6700.20/000.000

AUTHOR: Brett Dwyer, Assistant General Manager Regulatory Review and Compliance

SUBJECT: Standards and Regulations in Single Family Zones

RECOMMENDATION:

THAT "District of North Vancouver Rezoning Bylaw 1404 (Bylaw 8472)" is given FIRST Reading;

THAT "District of North Vancouver Rezoning Bylaw 1405 (Bylaw 8476)" is given FIRST Reading;

THAT "District of North Vancouver Nuisance Abatement Bylaw 7325, 2002 Amendment Bylaw 8473, 2020 (Amendment 5)" is given FIRST, SECOND, and THIRD Reading;

THAT "District of North Vancouver Bylaw Notice Enforcement Bylaw 7458, 2004 Amendment Bylaw 8474, 2020 (Amendment 56)" is given FIRST, SECOND, and THIRD Reading;

THAT "District of North Vancouver Rezoning Bylaw 1404 (Bylaw 8472)" be referred to a Public Hearing;

AND THAT "District of North Vancouver Rezoning Bylaw 1405 (Bylaw 8476)" be referred to a Public Hearing.

REASON FOR REPORT:

Council has directed staff to bring forward options for changes to District bylaws, policies and regulations to address areas of concern with current single family residential standards and regulations. Staff are now bringing forward recommended bylaw amendments in response to that direction together with requested additional information.

BACKGROUND:

At the September 16th, 2019, Council Workshop, Council provided direction to staff to explore options for changes to District bylaws, policies and regulations to address concerns and/or issues raised with regards to the following single family residential standards and regulation “target” areas:

1. retaining structures;
2. height of accessory structures (particularly detached garages);
3. nuisance noise;
4. nuisance lighting; and
5. landscape retention and hard surfaces.

At a Council workshop on November 19th, 2019 staff presented options for Council’s consideration. Council indicated support for some of the options presented and requested information on two additional areas of interests; single family basement floor space exemptions and maximum house sizes.

Background on Single Family Zones in the District:

The District’s five single family (RS1–RS5) and 14 neighbourhood zones were created over many years through robust community engagement. This process sought a balance between individual property owners’ rights and broad community interests.

Previous Council Workshops on Single Family Home Renewal:

A chronology of previous Council Workshops on single family home renewal is provided as an attachment to this report (Attachment A).

ANALYSIS:

For each of the target single family residential standards and regulation areas, staff completed the following research: review of the District’s current approach, the legislative authority to regulate, and a municipal scan of other jurisdictions’ approaches to regulating these areas. This information was presented in the Report to Committee dated November 6th, 2019 (Attachment B).

During the November 19th, 2019 Council Workshop, Council expressed interest in some of the options presented by staff. Staff then created recommendations for each target area based on input received from Council and further research completed by staff. In addition, staff completed a municipal scan comparing how the District regulates basement floor space exemptions and maximum house sizes to other municipalities which is included in Attachments G and H.

This report presents the following information and proposed bylaw amendments broken down into each of the five target areas plus the two additional areas of interest; basement floor space exemptions and maximum house sizes. The proposed bylaw amendments and additional information on basement floor space exemptions and maximum house sizes are found in Attachments to this report.

- An amendment to the District’s Zoning Bylaw to change to how retaining structures are regulated (Bylaw 1404, Attachment C)

- An amendment to the District's Zoning Bylaw to change to how accessory structures (including garages) are regulated (Bylaw 1405, Attachment D)
- An amendment to the District's Nuisance Abatement Bylaw to change how nuisance lighting is regulated (Bylaw 8473, Attachment E).
- An amendment to the District's Notice Enforcement Bylaw for the purpose of creating new fines to do with regulating nuisance lighting (Bylaw 8474, Attachment F).
- Information on the current steps staff are carrying out to address nuisance noise.
- Information on how the District currently regulates floor space exemptions for basements (Attachment H) and maximum house sizes in comparison to other municipalities (Attachment G).

Target Area 1- Retaining Walls

The District currently regulates the siting and height of retaining walls through the Zoning Bylaw, in the following manner:

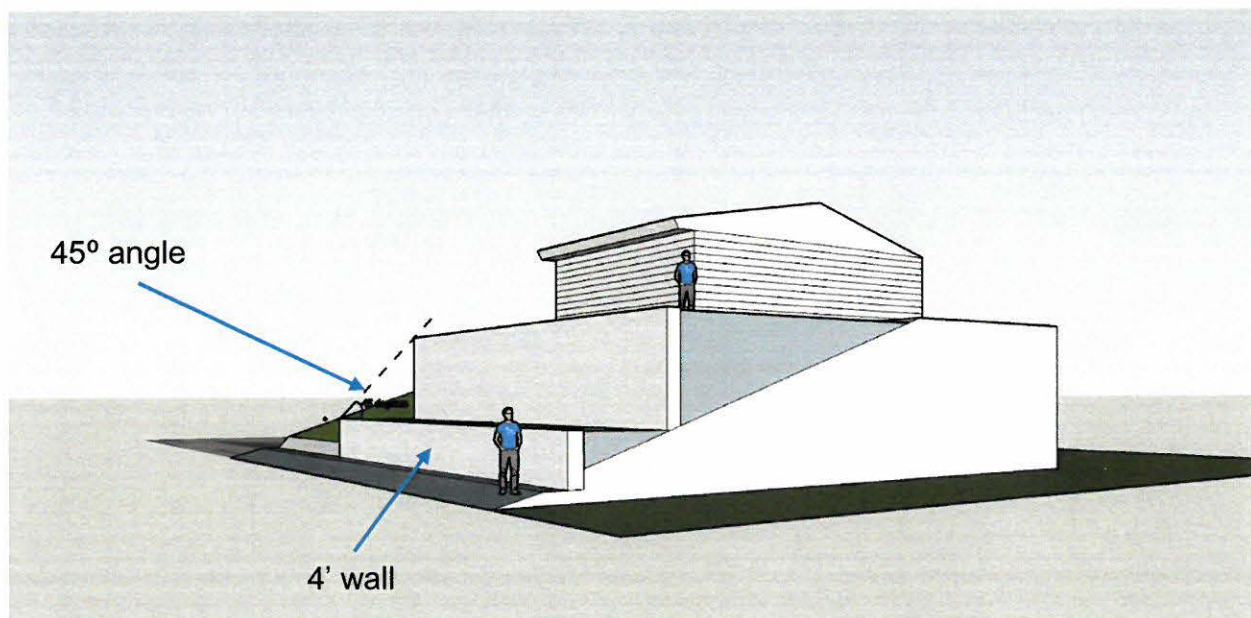
Section 409 Siting Exceptions

(3) Retaining Walls

Retaining walls may be constructed within the required setback area of a lot when the wall or walls do not extend above a line commencing 4.0 feet above the lesser of natural grade and finished grade at the outer face of the outermost wall and projected upward and inward on the lot at an angle of 45°...

This regulation allows the first retaining wall to be a maximum of 4 ft. in height with subsequent retaining walls to be contained within a height plane of 35° as illustrated below.

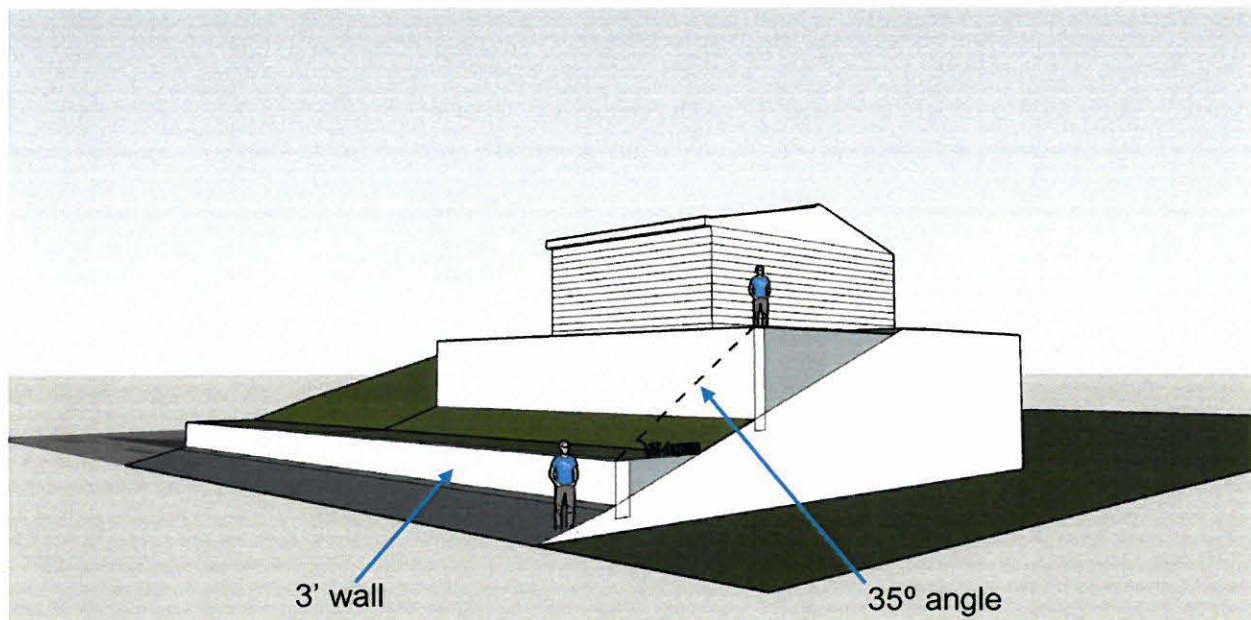
Current retaining wall regulation (4' and 45 degree height plane)



Although the District's Zoning Bylaw currently regulates the angle and height of retaining walls, it does not have a maximum height for a secondary or subsequent retaining wall above finished grade. For example, if a secondary retaining wall is set back 4 ft., the wall can be 4 ft. in height, if it is setback 8 ft., it can be 8 ft. in height, and so on. The District's current regulation establishes height from the lesser of natural or finished grade which prevents artificially raising the grade.

Council expressed interest in "Option 1" as presented in the November 6th, 2019 Report to Committee (Attachment B). This option proposes to amend the Zoning Bylaw to limit the first retaining wall in a series of retaining walls to 3 ft. in height and subsequent retaining walls to be contained within a height plane of 35° and to a maximum height of 8 ft., in all required setbacks as illustrated below.

Proposed retaining wall regulation (3' and 35 degree height plane)



Staff have prepared a proposed amendment to the Zoning Bylaw which reflects the above direction from Council - "Option 1". This proposed regulation would result in a lower first retaining wall and lower secondary retaining walls setback further from the property lines. The proposed amendment is provided in Attachment C in this report (Bylaw 1404).

Target Area 2- Height of Detached Accessory Buildings (including garages)

The District regulates how the height of accessory buildings and structures are measured through the Zoning Bylaw in the following manner:

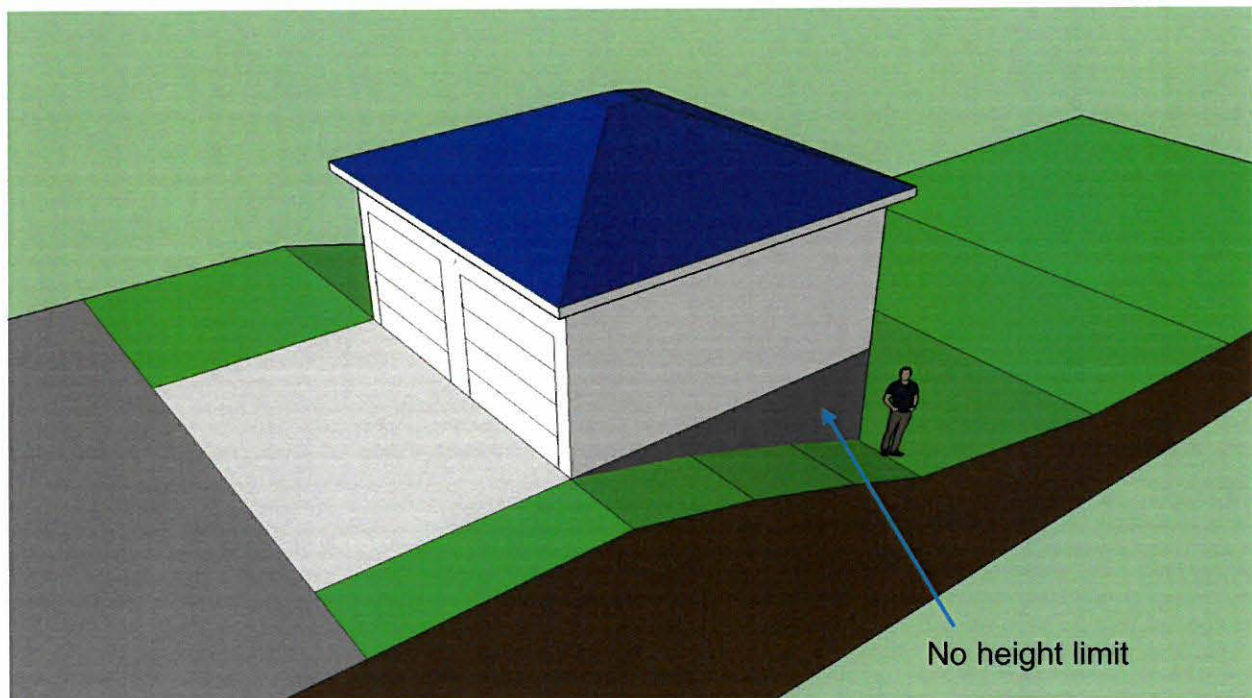
“height” means:

- (i) *With respect to a building or structure in a single family residential zone...in the case of an accessory building or structure it shall be the vertical distance measured from the floor level to the highest point of the building or structure;*

This height measurement is used for both detached and attached garages and accessory structures. The District uses top of slab as the floor elevation which is the finished grade at vehicular access. This means that height for accessory buildings is measured from the floor or slab surface regardless of natural or pre-existing grades.

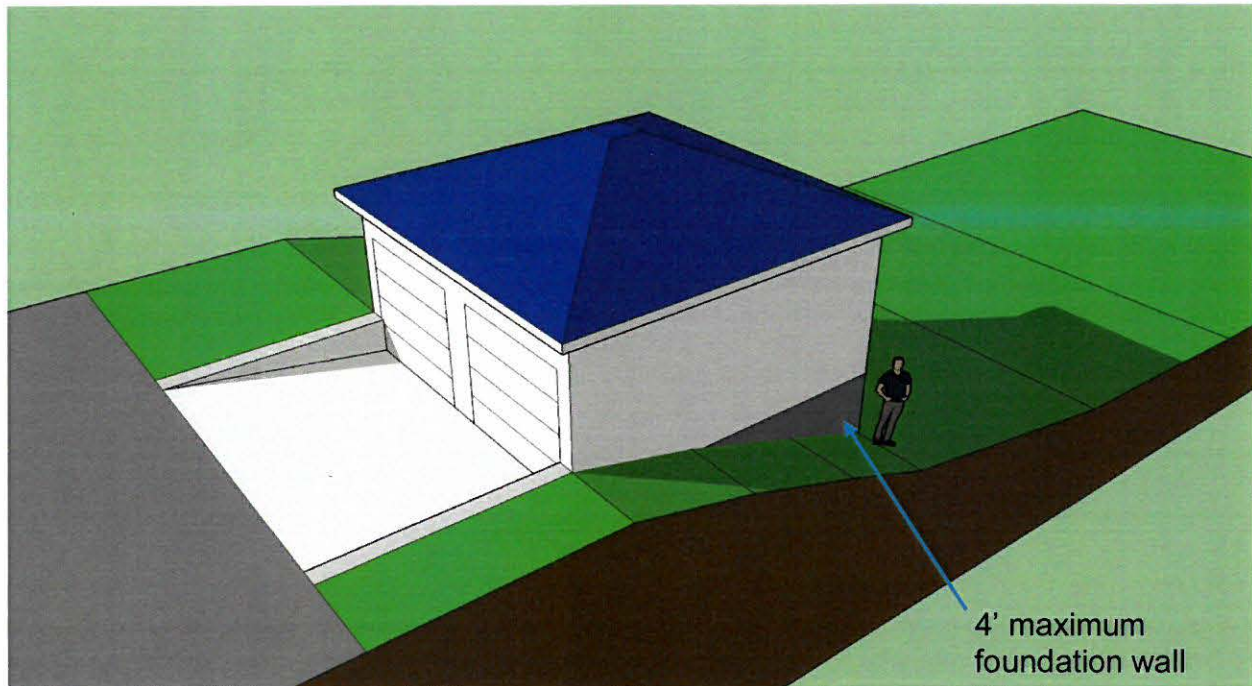
There is no current regulation related to exposed foundation wall face between floor elevation and grade resulting from a sloping lot.

Current regulation on natural grade (no height limit to foundation wall)



Council expressed interest in “Option 1” as presented in the November 6th, 2019 Report to Committee (Attachment B). This option amends the Zoning Bylaw to require detached parking structures and other accessory buildings and structures be measured from the floor level to the highest point of the building or structure, but in no case shall the floor level of the structure be more than 4 ft. above natural grade at any point.

Proposed regulation (4' maximum foundation wall height)



In establishing a maximum height of 4 ft. above natural grade for the floor level of accessory buildings this may force these type of structures to be recessed into the ground on sloping sites. As indicated by staff at the previous workshop, this will create an increase in the number of variances that Council and the Board of Variance will see for parking structures, as on steeply sloping lots compliance may be challenging due to limitations of driveway grades.

Staff have prepared a proposed amendment to the Zoning Bylaw which reflects the above direction from Council - "Option 1". The proposed amendment is provided in Attachment D in this report (Bylaw 1405).

Target Area 3- Nuisance Lighting

The following general application regulations in the District's Nuisance Abatement Bylaw apply to regulate nuisance lighting:

"Light Source" means a light bulb, light tube or floodlight lamp;

"Outdoor Light" means any Light Source that is not fully enclosed in a building or structure;

"Shade" means a non-transparent light shade that does not form part of a Light Source;

Prohibitions

6. d) *No person shall allow an Outdoor Light to be placed or lit on a parcel such that the Light Source is visible from a different parcel in a Residential Zone;*

Requirements

8. *Without limiting the generality of section 7, every person who is the owner or occupier of Real Property or their agent shall*

e) ensure that an Outdoor Light on the Property is shielded by a Shade or fixture such that the Light Source is not visible from another parcel located in a Residential Zone.

9. *The prohibitions in section 6(e) and the requirement in section 8(e) do not apply to the following:*

a) Christmas or holiday lights between November 15 and January 15;

In the November 6th, 2019 Report to Committee (Attachment B), staff described the enforcement challenges with responding to some nuisance complaints of lighting, that municipal regulation is of general application and such regulations must be easily understood and applied. A lighting professional was contracted to help with understanding the issues and in developing options for consideration.

Council expressed interest in “Options 2 and 3” as presented in the November 6th, 2019 Report to Committee (Attachment B). These options amend the Nuisance Abatement Bylaw to limit the hours seasonal/holiday display lighting may be illuminated and for staff to research more options. Seasonal or landscape lighting is generally permitted in other municipalities as this personalized lighting is challenging to regulate with diverse landscaping, personal preferences, family schedules, etc.

Following Council’s preferred option, staff have prepared a proposed amendment to the Nuisance Abatement Bylaw and Bylaw Notice Enforcement Bylaw, which reflects the above direction of “Option 2”. The proposed amendments adds that in addition to Christmas or holiday lights, Halloween lights are restricted to the number of days they may be displayed, and that both must be turned off nightly by 11:00PM. Christmas or holiday lights are currently restricted to November 15-January 15, and it is proposed that Halloween lights be displayed between October 15 to November 7. In addition to these proposed changes, general housekeeping revisions to the Nuisance Abatement Bylaw are included. The proposed amendments are in Attachment E and Attachment F in this report.

Target Area 4- Nuisance Noise

The District currently regulates single family residential outdoor mechanical equipment with the Noise Regulation Bylaw in the following manner:

Objectionable Noises or Sounds

5. *Without limiting the generality of section 3, the following noises or sounds are believed by the Council to be objectionable or liable to disturb the quiet, peace, rest, enjoyment, comfort or convenience of individuals or the public and are prohibited:*

- (b) *any of the following noises or sounds during the Night, where such noise or sound is audible from Premises other than the Premises from which the noise or sound originates:*
 - (iii) *noise or sound from mechanical equipment, including heat pumps, ventilation equipment, air conditioning systems, vents or pool or hot tub pumps, compactors or other ancillary equipment or vehicles;*

- (f) *any noise that exceeds the Sound Levels set out below:*
 - (i) *any Continuous Sound that exceeds the following Sound Levels at the Point of Reception:*

	Sound Level
a. <i>in a Quiet Zone during the Day</i>	55
b. <i>in a Quiet Zone during the Night</i>	45

Bylaw staff enforce these sound levels generally in response to complaints with the use of sound meters. These provisions are generally not enforced in emergency situations such as during power outages for the operation of equipment such as backup generators.

Staff are currently working with an acoustic consultant to review the District’s Noise Regulation Bylaw and present other strategies to minimise and/or address noise issues moving forward. The acoustic consultant has worked with our Noise Regulation Bylaw previously and upon first review they consider the bylaw to be a very sound and well-constructed bylaw. Additional review is being undertaken to compare our bylaw with current industry standards and best practices in acoustical regulation. Should the consultants recommend any revisions to improve the efficacy of the bylaw this will be brought forward to a future Regular Council meeting for consideration of possible amendments.

Additional work that is being undertaken with the acoustic consultant is to develop guidelines and instructional material that will be made available to residents and contractors to assist in understanding the noise related issues with varied mechanical equipment such as backup generators and heat pumps. Material produced will be both proactive in nature to assist prior to installation as well as providing options to reduce noise after installation. Staff will also be engaging the services of the acoustic consultant to provide appropriate refresher training on the taking of noise readings to ensure staff are being consistent and accurate in taking such readings.

Target Area 5- Landscape Retention and Reduction of Hard Surfaces

The District is currently completing an Integrated Stormwater Management Plan (ISMP) with the primary goal of improving watershed health. Mitigating the impacts of stormwater runoff from single family residential lots will have an important role in helping to achieve the goals of the ISMP.

It is anticipated that the ISMP will be brought forward to Council for consideration early in 2021. Staff believe that this work will inform an appropriate response to regulation regarding the amount of hardscaping and landscaping on single family lots. This will

ensure any regulation introduced will be based on scientific study and community feedback.

CONCURRENCE:

This report was reviewed with the District Bylaw Enforcement Department, Building Department, and Development Planning Department.

The District of North Vancouver Rezoning Bylaw 1404 (Bylaw 8472) and The District of North Vancouver Rezoning Bylaw 1405 (Bylaw 8476) affects land within 800m of a controlled access intersection and therefore approval by the Provincial Ministry of Transportation and Infrastructure will be required to approve the bylaw.

CONCLUSION:

This report presented bylaw amendments and presented further information to address the five target areas identified at the September 16, 2019 Council Workshop and two additional areas of interest.

OPTIONS:

1. Give Bylaws 8472 and 8476 First Reading, give Bylaws 8473 and 8474 First, Second and Third Reading, and refer Bylaws 8472 and 8476 to a Public Hearing (staff recommendation);
2. Give a select number bylaws the readings listed in option 1.
3. Provide alternate direction to staff.

Respectfully submitted,



Brett Dwyer
Assistant General Manager Regulatory Review and Compliance

- Attachment A: Chronology of previous Council Workshops on single family home renewal
- Attachment B: Report to Committee dated November 6th, 2019
- Attachment C: District of North Vancouver Rezoning Bylaw 1404 (Bylaw 8472)
- Attachment D: District of North Vancouver Rezoning Bylaw 1405 (Bylaw 8476)
- Attachment E: District of North Vancouver Nuisance Abatement Bylaw 7325, 2002, Amendment Bylaw 8473 (Amendment 5)
- Attachment F: District of North Vancouver Bylaw Notice Enforcement Bylaw 7458, 2004, Amendment Bylaw 8474 (Amendment 56)
- Attachment G: Information on floor space exemptions for basements
- Attachment H: Information on maximum house sizes

REVIEWED WITH:					
<input type="checkbox"/> Community Planning	_____	<input type="checkbox"/> Clerk's Office	_____	External Agencies:	
<input type="checkbox"/> Development Planning	_____	<input type="checkbox"/>	_____	<input type="checkbox"/> Library Board	
<input type="checkbox"/> Development Engineering	_____	Communications	_____	<input type="checkbox"/> NS Health	_____
<input type="checkbox"/> Utilities	_____	<input type="checkbox"/> Finance	_____	<input type="checkbox"/> RCMP	_____
<input type="checkbox"/> Engineering Operations	_____	<input type="checkbox"/> Fire Services	_____	<input type="checkbox"/> NVRC	_____
<input type="checkbox"/> Parks	_____	<input type="checkbox"/> ITS	_____	<input type="checkbox"/> Museum & Arch.	_____
<input type="checkbox"/> Environment	_____	<input type="checkbox"/> Solicitor	_____	<input type="checkbox"/> Other:	_____
<input type="checkbox"/> Facilities	_____	<input type="checkbox"/> GIS	_____		
<input type="checkbox"/> Human Resources	_____	<input type="checkbox"/> Real Estate	_____		
		<input type="checkbox"/> Bylaw Services	_____		

Attachment A: Chronology of Previous Workshops

November 19, 2019 – Staff presented research on Standards and Regulations in Single Family Zones, in four key research areas: nuisance lighting; nuisance noise; retaining structures; and grade for accessory buildings/garages. The fifth topic area, Landscape retention and hard surfaces, was deferred to a future Workshop.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=4151512>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=4208594>

Video: <http://app.dnv.org/council/default.aspx?filename=20191119CR-2&type=MP4&start=0&end=5353>

September 16, 2019 – Council discussed Standards and Regulations in Single Family Zones, directing staff to research five key areas: nuisance lighting; nuisance noise; landscape retention and hard surfaces; retaining structures; and grade for accessory buildings/garages.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=4085524>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=4135503>

Video:

<http://app.dnv.org/council/default.aspx?filename=20190916CR&type=MP4&start=0&end=10042>

July 8, 2019 – Council discussed three areas of interest: nuisance noise; nuisance lighting; size, density, form and character of single family homes. Other topics were deferred to a planned future Workshop in the fall of 2019.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=4005346>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=4041291>

Video: <http://app.dnv.org/council/default.aspx?filename=20190708CC-1&type=MP4&start=0&end=5137> and

<http://app.dnv.org/council/default.aspx?filename=20190708CC-2&type=MP4&start=0&end=4861>

March 19, 2018 - Council discussed options to address four priority issues related to single family home renewal including improving enforcement, erosion and sediment control, preserving landscaping, and regulating the size, form and character of homes.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3512238>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3550240>

Video:

<http://app.dnv.org/council/default.aspx?filename=20180319cr&type=MP4&start=0000&end=6716>

September 18, 2017 - Staff presented the results from a survey of Councillors to help prioritize issues related to single family home renewal in order to further define the issues and expand measures to mitigate impacts to the community.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3333314>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3374889>

Video:

<http://app.dnv.org/council/default.aspx?filename=20170918cr&type=MP4&start=0&end=3023>

March 6, 2017 - Staff provided an update on District initiatives and received direction from Council to prepare a list of issues to help prioritize future efforts.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3140512>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3166532>

Video:

<http://app.dnv.org/council/default.aspx?filename=20170306cr&type=MP4&start=0&end=2588>

June 21, 2016 - Staff presented the results of a public survey on issues and potential solutions related to single family home renewal.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=2913310>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=2931870>

Video:

<http://app.dnv.org/council/default.aspx?filename=160621cc&type=MP4&start=0000&end=9308>

October 5, 2015 - Staff provided a report to Council which summarizes key issues related to single family home renewal as well as policies and tools the District uses to manage these issues, and suggested actions to further mitigate negative impacts to residents.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=2739843>

Minutes and Video: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=2756569>

AGENDA INFORMATION	
<input type="checkbox"/> Council Workshop	Date: _____
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<input type="checkbox"/> Advisory Oversight	Date: _____
<input type="checkbox"/> Other:	Date: _____

_____ Dept. Manager	_____ GM/ Director	_____ CAO
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The District of North Vancouver REPORT TO COMMITTEE

November 6, 2019
File: 13.6700.20/000.000

AUTHOR: Brett Dwyer, Assistant General Manager Regulatory Review and Compliance

SUBJECT: Standards and Regulations in Single Family Zones

RECOMMENDATION:

THAT the report entitled "Standards and Regulations in Single Family Zones" dated November 6, 2019 be received for information;

THAT the proposed options for changes to the single family standards and regulations be considered by Council; and

THAT Council provides direction to staff regarding preferred options.

REASON FOR REPORT:

At the September 16th, 2019, Council Workshop, the Council Committee provided direction to staff to explore options for making changes to District bylaws, policies and regulations to address concerns and/or issues raised with regards to the following single family residential standards and regulation areas:

1. retaining structures;
2. height of accessory structures (particularly detached garages);
3. nuisance noise;
4. nuisance lighting; and
5. landscape retention and hard surfaces.

This report provides options for Council's consideration in each target area, as outlined under *options for consideration* within each section. Council may determine to provide alternate direction to staff, other than the options provided.

BACKGROUND:

Background on Single Family Zones in the District:

The District's five single family (RS1–RS5) and 14 neighbourhood zones were created over many years through robust community engagement. This process sought a balance between individual property owners' rights and broad community interests.

Previous Council Workshops on Single Family Home Renewal:

A chronology of previous Council Workshops on single family home renewal is provided as an attachment to this report (Attachment A).

ANALYSIS:

For each of the five target single family residential standards and regulation areas, staff completed the following research: review of the District's current approach, the legislative authority to regulate, and a municipal scan of other jurisdictions' approaches to regulating these areas. Staff have provided options for Council's consideration in the five identified areas.

Background research and supplementary information is included for each target area (Attachments B-F).

Target Area 1- RETAINING STRUCTURES

Issue Identification:

Council has identified retaining structures on single family residential lots to potentially cause negative impacts to neighbouring properties and residential streetscapes. Retaining walls, when too high, can cause concerns regarding overshadowing, single family neighbourhood aesthetic quality and character, and sightlines.

It is noted that the District has the authority to regulate siting and height of retaining walls. The District may not regulate retaining wall materials or method of construction beyond that prescribed in the *BC Building Code*. However, these matters may be regulated by the *BC Building Code*, enforced through the Construction Bylaw.

Municipal Comparison:

Retaining wall regulations in Metro Vancouver municipalities with similar topography to the District were surveyed by staff.

The results ranged from having no regulation other than the *BC Building Code* (to address structural integrity only), to a range of permutations in terms of height envelope angles and resulting heights permitted. Final permitted heights depend on factors such as zoning, location on a lot, whether the wall is shared between residential property lines, what grade the measurement is taken from, etc. Heights range from 2 ft. to approximately

11.8 ft. Retaining walls typically require a registered professional and a municipal building permit.

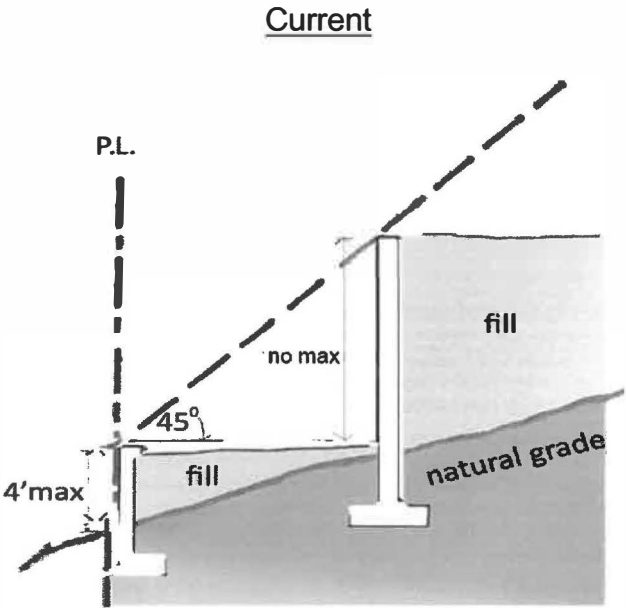
Further details on research can be found in Appendix B.

Current Approach:

The District regulates the siting and height of retaining walls through the Zoning Bylaw, in the following manner:

Section 409 Siting Exceptions

- (3) *Retaining Walls*
Retaining walls may be constructed within the required setback area of a lot when the wall or walls do not extend above a line commencing 4.0 feet above the lesser of natural grade and finished grade at the outer face of the outermost wall and projected upward and inward on the lot at an angle of 45°...



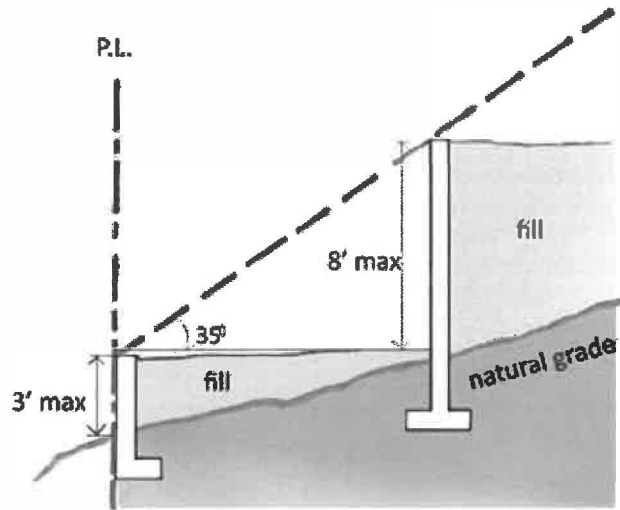
It is worth noting that the District’s regulation establishes height from the lesser of natural or finished grade. This is beneficial in terms of managing impacts as it does not enable artificially raising the grade. Although the District’s Zoning Bylaw currently regulates the angle and height of retaining walls, it does not have a maximum exposed height above finished grade. For example, if a secondary retaining wall is set back 4 ft., the wall can be 4 ft. in height, if it is setback 8 ft., it can be 8 ft. in height, and so on.

Options for Consideration:

These options are stand-alone options for amendments to the District’s Zoning Bylaw.

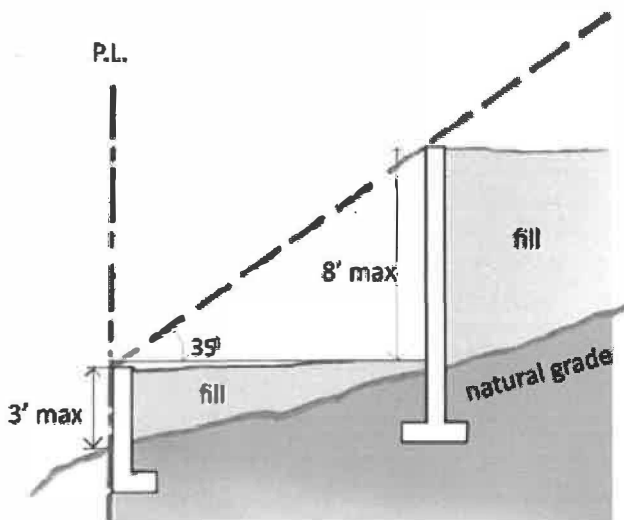
- 1) Amend the District's Zoning Bylaw to limit a retaining wall or the first retaining wall in a series of retaining walls to 3 ft. in height and subsequent retaining walls be limited by a height plane of 35° to a maximum height of 8 ft., in all setbacks.

All Setbacks

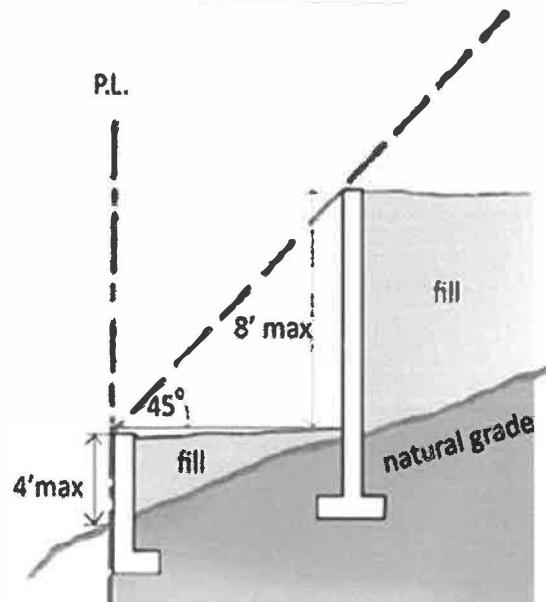


- 2) Amend the District's Zoning Bylaw to limit a retaining wall or the first retaining wall in a series of retaining walls to 3 ft. in height and subsequent retaining walls be limited by a height plane of 35° to a maximum height of 8 ft., in front and flanking required setbacks. For side and rear required setbacks, the existing retaining wall regulation would still apply with no wall having a maximum exposed height greater than 8 ft.

Front and Flanking



Side and Rear



Comparison of Options:

These options would include amendments to the District's Zoning Bylaw and potentially the Construction Bylaw. Zoning Bylaw and Construction Bylaw changes would only apply to new retaining walls and would not retroactively apply to residential properties.

It is noted that existing permitted retaining structures that did not comply with the new regulation would benefit from legal non-conforming status.

Both options reduce visual impact of large wall faces from the front of a property by limiting exposed retaining wall height to 8 ft. In both options, properties with challenging topography may have difficulty meeting regulations, in particular, steeply sloped lots or narrow cross-sloping lots. This challenge may result in an increase of Zoning Bylaw variance applications either to the Board of Variance or Development Variance Permits to Council.

Option 1: (all required setbacks 3 ft. for first wall, 35° angle and 8 ft. subsequent max wall height)

- Lots with a significant slope that require retaining walls in the side yards may have difficulty meeting new regulation.
- Buildable area may be reduced more than option 2, for those lots with challenging topography.
- Sloping lots would not be able to achieve the same amount of level yard space.

Option 2: (front and flanking required setbacks same as option 1, in side and rear required setbacks 4 ft. for first wall, 45° angle and 8 ft. subsequent max wall height)

- Does less to reduce visual impact for neighbours sharing side or rear yard property lines than option 1 while still introducing a maximum 8 ft. exposed height.
- Potentially less impact to buildable area than option 1, for those lots with challenging topography.
- Potentially less variances than option 1.

Target Area 2- HEIGHT OF DETACHED ACCESSORY BUILDINGS (INCLUDING GARAGES)

Issue Identification:

Council has identified that height measurement of detached accessory buildings (including garages) on single family residential lots with sloping topography may result in large lengths of exposed foundation wall between floor or slab elevation and grade. This may cause negative visual impacts to neighbouring and nearby properties. Detached garages having large amounts of exposed foundation walls have been cited to be inappropriate to neighbourhood aesthetic quality and character.

Municipal Comparison:

Accessory structure height regulations in Metro Vancouver municipalities with similar topography to the District were surveyed by staff.

The results ranged from accessory buildings and structures being limited to one storey, measured from finished grade or in the case of detached garages, measured from finished grade at vehicular access. Although some variation was found, detached garages are mostly measured from finished grade at vehicular access. This is the same as the District's current regulation.

Further details on research can be found in Appendix C.

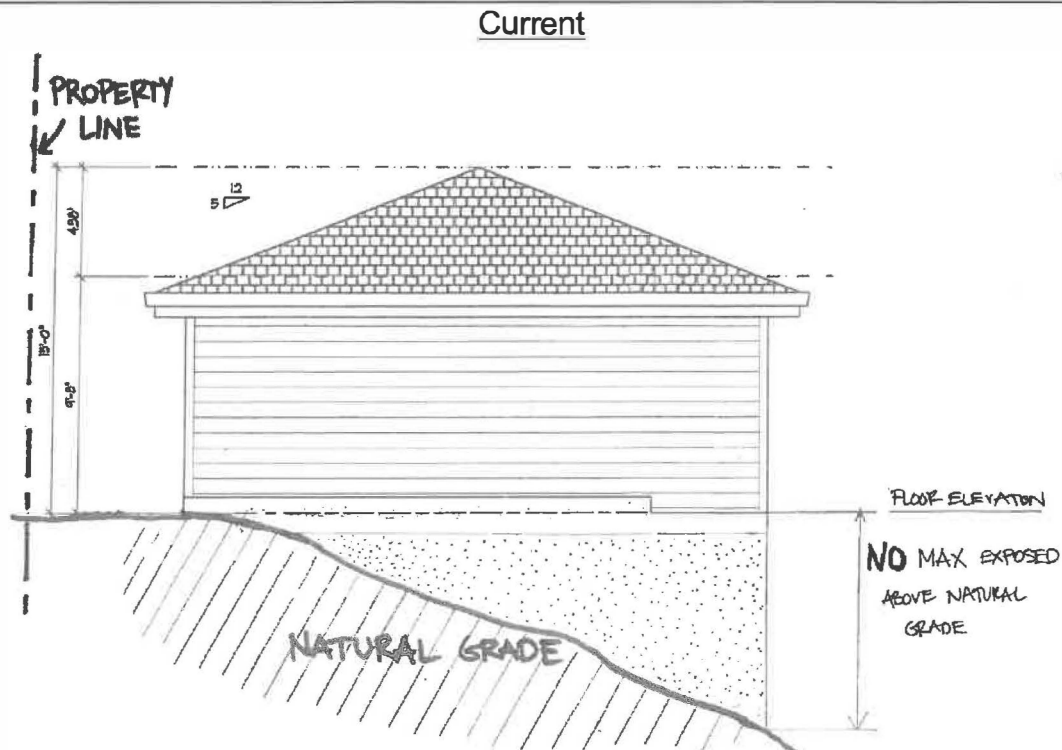
Current Approach:

The District regulates how the height of accessory buildings and structures are measured through the Zoning Bylaw in the following manner:

Part 2 Interpretation

"height" means:

- (i) With respect to a building or structure in a single family residential zone...in the case of an accessory building or structure it shall be the vertical distance measured from the floor level to the highest point of the building or structure;*



This height measurement is used for both detached and attached garages and accessory structures. The District uses top of slab as the floor elevation which is the finished grade at vehicular access. This means that height for accessory buildings is measured from the floor or slab surface regardless of natural or pre-existing grades.

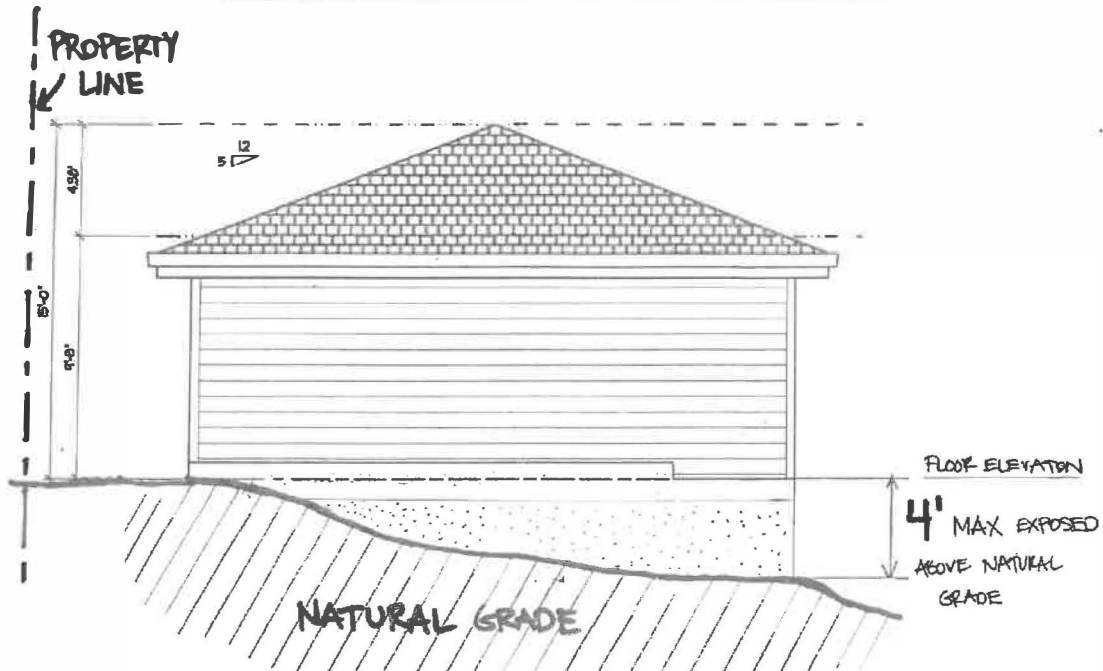
There is no current regulation related to exposed foundation wall face between floor elevation and grade resulting from a sloping lot.

Options for Consideration:

These options are stand-alone options for amendments to the District's Zoning Bylaw.

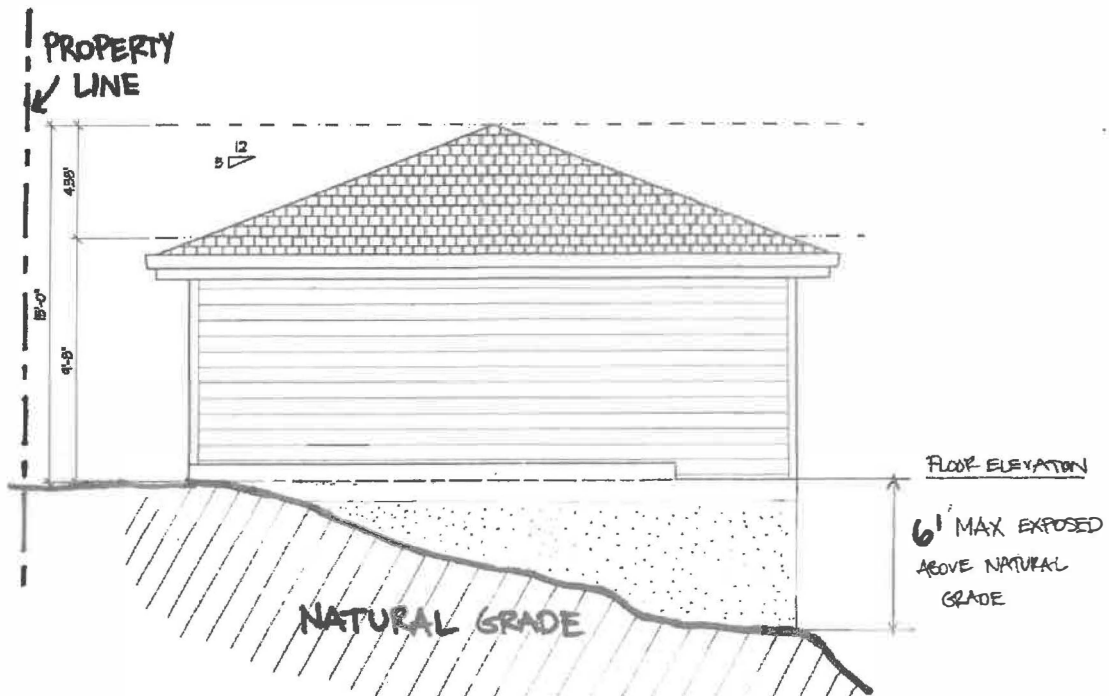
- 1) Amend the District's Zoning Bylaw to require that detached parking structures and other accessory buildings and structures be measured from the floor level to the highest point of the building or structure, but in no case shall the floor level of the structure be more than 4 ft. above natural grade at any point.

4 ft. Max Floor Elevation Above Natural Grade



- 2) Amend the District's Zoning Bylaw to require that detached parking structures and other accessory buildings and structures be measured from the floor level to the highest point of the building or structure, but in no case shall the floor level of the structure be more than 6 ft. above natural grade at any point.

6 ft. Max Floor Elevation Above Natural Grade



Comparison of Options:

These options would require amendment to the District's Zoning Bylaw. Zoning Bylaw changes would only apply to new detached parking and accessory buildings and structures and would not retroactively apply to permitted structures that do not comply with new regulations.

It is noted that existing detached accessory buildings and structures that did not comply with the new regulation would benefit from legal non-conforming status.

New regulation may increase the difficulty in constructing accessory buildings and structures on sloping lots as the buildings will be 'pushed' into the ground to avoid exposed foundation walls. The proposed change may present challenges for lots which are down-sloping and provide vehicular access from a lane or street. This is due to the Development Servicing Bylaw maximum driveway grade. This could result in additional Board of Variance applications or Development Variance Permit applications to Council.

In steeply cross-sloping lots, pushing the structure into the ground may result in the need for more retaining walls; however, these would be 'down' retaining walls rather than 'up' retaining walls meaning visual impacts would be limited.

Option 1: (no greater than 4 ft. exposed foundation wall)

- Will be easier for lots with minimal grade changes to comply than those with steep slopes.
- Provides for better interface with neighbouring properties.

Option 2: (no greater than 6 ft. exposed foundation wall)

- Allows more flexibility than option 1.
- Will likely cause less need for variances than option 1.
- Does less to reduce visual impact for neighbours than option 1 while still creating a modest maximum where one currently does not exist.

Target Area 3- NUISANCE LIGHTINGIssue Identification:

Council has expressed concern regarding the placement and intensity of outdoor lighting in single family residential areas particularly in relation to new construction of single family homes. This nuisance light may negatively impact residents' quality of life and may have other negative impacts such as to wildlife, dark sky and increased energy consumption.

In the last five years (including 2019 thus far), 21 single family lighting complaints have been received by the Bylaw Department. These complaints each represent an individual property where a complaint about lighting was made. It is noted that multiple complaints may have been received in relation to an individual lighting complaint. Where a subsequent complaint differed in nature, for example, different lights were being complained about, this counted as a separate complaint. This results in an average of approximately four per year.

Lighting Complaints						
Complaints by Type	2015	2016	2017	2018	2019	Total
Recessed	0	0	2	0	0	2
Flood/Spot/Motion	1	5	4	3	0	13
Seasonal	0	1	1	1	0	3
Grouped/Other	1	0	0	1	1	3
Total	2	6	7	5	1	21

Municipal Comparison:

Residential outdoor lighting regulations in Metro Vancouver municipalities were surveyed by staff.

Five Metro Vancouver municipalities have regulation related to outdoor nuisance lighting. Regulations include requiring outdoor lights to be shielded by a shade or fixture and prevention of direct shining into living or sleeping areas of adjacent residential properties. Allowances for holiday lighting is generally permitted. Further details on research can be found in Appendix D.

Current Approach:

The following general application regulations in the District's Nuisance Abatement Bylaw apply to regulate nuisance lighting:

"Light Source" means a light bulb, light tube or floodlight lamp;

"Outdoor Light" means any Light Source that is not fully enclosed in a building or structure;

“Shade” means a non-transparent light shade that does not form part of a Light Source;

Prohibitions

6. *d) No person shall allow an Outdoor Light to be placed or lit on a parcel such that the Light Source is visible from a different parcel in a Residential Zone;*

Requirements

8. *Without limiting the generality of section 7, every person who is the owner or occupier of Real Property or their agent shall*

e) ensure that an Outdoor Light on the Property is shielded by a Shade or fixture such that the Light Source is not visible from another parcel located in a Residential Zone.

9. *The prohibitions in section 6(e) and the requirement in section 8(e) do not apply to the following:*

a) Christmas or holiday lights between November 15 and January 15;

This is the current regulation Bylaw Enforcement Staff use to address light complaints caused by a residential house. It is effective to address the direct impact on a neighbour from unshielded fixtures or poorly directed flood lighting. In recent years, installation of purpose based, low output landscape lighting has taken the place of some of these brighter house-mounted fixtures, and staff have seen a decrease in complaints of this type.

In April 2002, the District’s Nuisance Abatement Bylaw was amended to include glaring light regulations in residential zones. This amendment described types and wattages of various light sources and placed a maximum bulb wattage in a given light fixture. It also stipulated the length of time an outdoor light may be lit and between what hours. In September 2002, these regulations were removed, as aspects of the bylaw had proved to be difficult to enforce.

Bylaws must be easily understood and applied, enforceable and accomplish the desired goal. Differences in properties such as density and maturity of landscaping, topography, and other factors such as family schedules, lifestyles, individual personal sense of security are factors to also be considered to prevent unintended consequences and challenges to enforcement.

Options for Consideration:

Due to the complexities of measuring and regulating residential lighting, staff have contracted a lighting professional to aid with understanding the issues and developing options for consideration. For light spillage or light trespass typically occurring on residential properties, it can be difficult to determine the source of the light when measuring on the ground. Lighting can originate from several sources including

landscape lighting, security lighting, decorative lighting and sources from outside the property.

The colour temperature or sometimes called 'temperament' of a particular light can contribute to its perceived intensity or brightness. Colour temperature is measured in degrees Kelvin with the brightest white light (appearing as white-blue) being in the 6000K range, while warmer light is in the 3000K range (appearing as yellowish-orange).

LED lighting can add to impact due to the bright point source of the fixture. The white-blue colour temperature of LED lighting adds to its perceived brightness, whereas the yellowish-orange colour temperature of high pressure sodium lighting is perceived as softer.

Lighting is measured in lux or lumens and there are challenges with setting a maximum lux/lumens level for residential properties. Measuring light output on site would not be accurate as other light sources outside of the property contribute to the readings. Attempting to measure the light level is time consuming, requires some technical training and the equipment can be costly. Attempting to model the light output from a residence is also difficult (for example, at the Building Permit stage), as most fixtures do not have readily available photometric files that are required to undertake digital modelling. In addition, how the light is mounted and orientated impacts the overall light output and distribution.

Having regard to the above, the following options may be used as stand-alone amendments to the District's Nuisance Abatement Bylaw or be used together.

1) Amend the District's Nuisance Abatement Bylaw to require that all outdoor single family residential light sources be pointed downwards.

Staff have identified lighting that is installed to shine up, onto the house as having a potential impact to neighbours. They must also comply with existing regulations that light source is shielded i.e., not visible from a different parcel.

2) Amend the District's Nuisance Abatement Bylaw to require that all outdoor holiday/seasonal/decorative lighting must be turned off during certain hours.

The Nuisance Abatement Bylaw contains regulation to do with holiday lighting based on time of year (November 15 to January 15). This would add a time of day to the bylaw.

3) Work with a lighting professional to develop further options.

This option would include continuing to work with a lighting expert to create alternative solutions.

Comparison of Options:

Depending how these options are drafted, Nuisance Abatement Bylaw changes could retroactively apply to all single family residential properties.

Option 1: (all outdoor lights pointed downwards)

- Creates a similar regulation to that already existing in the Nuisance Abatement Bylaw which staff may visually inspect from the ground.
- May impact ability of residents to have particular types of decorative lighting that cannot be directed downwards such as string lights.

Option 2: (all outdoor seasonal lighting turned off during certain times)

- Will require careful consideration of what is considered decorative/ holiday/ seasonal lighting.
- Will require staff to create parameters for time restrictions.

Option 3: (staff to continue working with a lighting professional to develop further options)

- Would allow staff to work with a lighting expert who can advise on feasibility and technical aspects of regulations.
- Staff must report back to Council on this option.

Target Area 4- NUISANCE NOISEIssue Identification:

Council has expressed concerns regarding nuisance noise originating from outdoor mechanical equipment in single family residential zones in the District. Nuisance noise is cited as having negative impacts to residents' quality of life.

In the last five years (including 2019 thus far), 37 noise complaints have been recorded by District staff to do with outdoor mechanical equipment (air conditioning units, heat pumps, pool equipment, hot tub equipment, and generators). This gives an average of approximately seven per year. Note that one complaint received was repetitive (same complainant against the same property) and so this one complaint has been taken out of the below table.

Equipment Complaint	2015	2016	2017	2018	2019	Total
Air Conditioning Unit	1	3	4	0	3	11
Heat Pump	2	1	1	0	0	4
Pool	2	3	0	0	3	8
Hot tub	0	0	2	2	1	5
Emergency Generator	3	3	1	1	1	9
Total	8	10	8	3	8	37

Noise generating mechanical equipment is often located in side yard setbacks as these side yards provide for limited functional utility to homeowners. This placement, while convenient for home owners, is often in close proximity to an existing neighbouring dwelling.

Municipal Comparison:

Residential outdoor mechanical equipment regulations in Metro Vancouver municipalities were surveyed by staff.

Four municipalities were found to have siting regulations for residential outdoor mechanical equipment in their Zoning Bylaws. Some municipalities have general decibel level regulation, which would include this type of outdoor mechanical equipment.

Further details on research can be found in Appendix E.

Current Approach:

The District regulates the nuisance of single family residential outdoor mechanical equipment at night with the Noise Regulation Bylaw in the following manner:

Objectionable Noises or Sounds

5. *Without limiting the generality of section 3, the following noises or sounds are believed by the Council to be objectionable or liable to disturb the quiet, peace, rest, enjoyment, comfort or convenience of individuals or the public and are prohibited:*
- (b) any of the following noises or sounds during the Night, where such noise or sound is audible from Premises other than the Premises from which the noise or sound originates:*
 - (iii) noise or sound from mechanical equipment, including heat pumps, ventilation equipment, air conditioning systems, vents or pool or hot tub pumps, compactors or other ancillary equipment or vehicles;*
 - (f) any noise that exceeds the Sound Levels set out below:*
 - (i) any Continuous Sound that exceeds the following Sound Levels at the Point of Reception:*

	Sound Level
<i>a. in a Quiet Zone during the Day</i>	55
<i>b. in a Quiet Zone during the Night</i>	45

Bylaw staff enforce these sound levels with the use of sound meters, however, operationally these provisions are generally not enforced during power outages for the operation of equipment such as backup generators in these emergency situations.

Recommended Options:

These options may be used as stand-alone amendments to the District's Zoning Bylaw.

- 1) Amend the District's Zoning Bylaw to require that residential outdoor mechanical equipment such as air conditioning units, heat pumps, pool equipment, hot tub equipment and generators are located to the rear of single family homes in single family residential zones.**

This option places outdoor mechanical equipment to the rear of the home.

- 2) Amend the District's Zoning Bylaw to require that residential outdoor mechanical equipment such as generators, heating systems for pools and hot tubs, air conditioning units, etc. are setback from shared lot lines in single family residential zones a minimum of 8 ft.**

This option places outdoor mechanical equipment a minimum distance from all lot lines.

Comparison of Options:

These options would include amendment to the District's Zoning Bylaw. Zoning Bylaw changes would only apply to new mechanical equipment and would not retroactively apply.

It is noted that existing permitted mechanical equipment that did not comply with the new regulation would benefit from legal non-conforming status.

Introducing siting regulation for outdoor mechanical equipment may impact design and siting of structures.

Option 1: (siting outdoor mechanical equipment to the rear of the house)

- Reduces noise in the front yard of properties.
- May not reduce impact for neighbours sharing a rear lot line bearing in mind this type of lot configuration provides greater separation.

Option 2: (siting outdoor mechanical equipment a minimum of 8 ft. from shared lot lines)

- Reduces noise between all shared property lines.

Target Area 5- LANDSCAPE RETENTION AND REDUCATION OF HARD SURFACES

Issue Identification:

Council has expressed concern regarding an increase of impermeable surface area and a loss of landscaping/greenspace on single family residential lots. These changes may negatively impact neighbourhood aesthetic quality and character and the natural environment through loss of vegetation and reduction in groundwater infiltration.

Municipal Comparison:

Hard surface and landscaping regulations in Metro Vancouver municipalities were surveyed by staff.

Ten Metro Vancouver municipalities have zoning bylaw regulations related to impermeable or permeable surface area coverages in single family residential lots. Two municipalities had regulations applicable to the front yard of a property.

Nine municipalities have a definition for landscaping. Some require that areas not covered by structures and other permitted surfaces in a residential front yard be landscaped.

Further details on research can be found in Appendix F.

Current Approach:

The District's Zoning Bylaw regulates the siting of structures on a lot and the portion of a lot that may be covered with structures.

The Zoning Bylaw restricts the percentage of required front yards that may be covered with parking structures and surfaces capable of supporting parking in the RS1-5, RSE, RSCH and RSEW single family residential zones. These percentages differ depending on the zone. The existing language in the Zoning Bylaw may lead to difficulty in preventing more surfaces capable of supporting parking in required front yards than the Zoning Bylaw intended. At times, it has been unclear for staff and applicants which surfaces count towards these maximums, such as with gravel/permeable pavers, etc. or in the case of shared driveway access. For example, it is desirable to limit areas outside paving from having materials such as permeable pavers or gravel in that vehicles could then park on this surface in addition to a paved area. At the same time, allowance should be given for these materials to be used in place of paving. It is recommended that staff revise the existing language surrounding this regulation as a means of limiting front yard hard surfaces and bringing clarification for staff and applicants. This should be done at the same time as the recommended options.

The District is currently completing an Integrated Stormwater Management Plan (ISMP) with the primary goal of improving watershed health. One way to achieve this will be to mitigate the impacts of stormwater runoff from development. Single family residential lots will have an important role in helping to achieve the goals of the ISMP. One option being considered as part of the ISMP is to introduce a maximum impermeable surface area for single family residential lots to align with Metro Vancouver's targets.

Staff recommend to use the ISMP, once completed, to implement appropriate infiltration measures for single family residential lots. This will ensure regulation is introduced which is based on scientific study and community feedback. It is anticipated the ISMP will be completed in 2020.

Options for Consideration:

These options may be used as stand-alone amendments to the District's Zoning Bylaw or be used together.

- 1) Amend the District's Zoning Bylaw to add maximum coverage regulations for front yard coverage (parking-related structures, paving and other buildings) to the eleven single family residential zones without such regulation.**

Establishment of different percentages based on zoning, due to differing lot sizes, will likely be required.

This option should also include clarifying language surrounding which structures, surfaces and paved areas count towards maximums.

2) Amend the District's Zoning Bylaw to add a definition of landscaping and require this to be applied to the remainder of required front yard areas after permitted coverages are deducted, in single family residential zones.

This option would include the creation of a definition for landscaping with the intention to focus on including permeable or natural materials/surfaces and decorative features. Further research by staff will be needed to establish an appropriate definition.

Comparison of Options:

These options would include amendment to the District's Zoning Bylaw. Zoning Bylaw changes would only apply to new development and would not retroactively apply to residential properties.

Option 1: (add minimum coverage regulations for front yard coverage to those single family zones currently without)

- Extends regulation restricting required front yard coverages across single family residential zones in the District. This will limit some hard surface in front yards which in turn may help to create permeable or soft landscaped space.
- Provides opportunity to clarify which materials and structures count towards required front yard parking structures, surfaces and paved areas and how this coverage may be calculated.

Option 2: (add a definition of landscaping and require landscaping covers those areas not covered by other surfaces and structures)

- Introduces a method for achieving front yard landscaped area.
- Works to address Council's concern regarding the lack of landscaping.
- May be difficult to enforce, outside of a building permit system linked to single family home redevelopment.

NEXT STEPS AND PUBLIC ENGAGEMENT:

Once Council direction is received, staff will work with the District's Communication Department to carry out appropriate public engagement on the changes. The proposed changes have the potential to impact numerous households depending on the nature and extent of the proposed changes. The type of public engagement is expected to differ depending on the selected options.

Staff will then prepare bylaw amendments, as required, and bring these changes with results of the public engagement for consideration at a Regular meeting of Council.

If Council selects options that require amendments to the Zoning Bylaw, a public hearing will also be required.

CONCLUSION:

This report outlines options to address the five target areas identified at the September 16, 2019 Council Workshop.

Respectfully submitted,

Brett Dwyer
Assistant General Manager Regulatory Review and Compliance

- Attachment A: Chronology of previous Council Workshops on single family home renewal
- Attachment B: Retaining structures
- Attachment C: Grade for Detached Garages
- Attachment D: Nuisance lighting
- Attachment E: Nuisance noise
- Attachment F: Landscape Retention and Hard Surfaces
- Attachment G: Presentation

REVIEWED WITH:		
<input type="checkbox"/> Community Planning	_____	<input type="checkbox"/> Clerk's Office
<input type="checkbox"/> Development Planning	_____	<input type="checkbox"/> _____
<input type="checkbox"/> Development Engineering	_____	Communications
<input type="checkbox"/> Utilities	_____	<input type="checkbox"/> Finance
<input type="checkbox"/> Engineering Operations	_____	<input type="checkbox"/> Fire Services
<input type="checkbox"/> Parks	_____	<input type="checkbox"/> ITS
<input type="checkbox"/> Environment	_____	<input type="checkbox"/> Solicitor
<input type="checkbox"/> Facilities	_____	<input type="checkbox"/> GIS
<input type="checkbox"/> Human Resources	_____	<input type="checkbox"/> Real Estate
		<input type="checkbox"/> Bylaw Services
		External Agencies:
		<input type="checkbox"/> Library Board
		<input type="checkbox"/> NS Health
		<input type="checkbox"/> RCMP
		<input type="checkbox"/> NVRC
		<input type="checkbox"/> Museum & Arch.
		<input type="checkbox"/> Other:

Attachment A: Chronology of Previous Workshops

September 16, 2019 – Council discussed Standards and Regulations in Single Family Zones, directing staff to research five key areas: nuisance lighting; nuisance noise; landscape retention and hard surfaces; retaining structures; and grade for accessory buildings/garages.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=4085524>

Minutes: [file:///C:/Users/adamsh/Downloads/190916CW.MIN%20\(1\).pdf](file:///C:/Users/adamsh/Downloads/190916CW.MIN%20(1).pdf)

Video:

<http://app.dnv.org/council/default.aspx?filename=20190916CR&type=MP4&start=0&end=10042>

July 8, 2019 – Council discussed three areas of interest: nuisance noise; nuisance lighting; size, density, form and character of single family homes. Other topics were deferred to a planned future Workshop in the fall of 2019.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=4005346>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=4041291>

Video: <http://app.dnv.org/council/default.aspx?filename=20190708CC-1&type=MP4&start=0&end=5137> and

<http://app.dnv.org/council/default.aspx?filename=20190708CC-2&type=MP4&start=0&end=4861>

March 19, 2018 - Council discussed options to address four priority issues related to single family home renewal including improving enforcement, erosion and sediment control, preserving landscaping, and regulating the size, form and character of homes.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3512238>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3550240>

Video:

<http://app.dnv.org/council/default.aspx?filename=20180319cr&type=MP4&start=0000&end=6716>

September 18, 2017 - Staff presented the results from a survey of Councillors to help prioritize issues related to single family home renewal in order to further define the issues and expand measures to mitigate impacts to the community.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3333314>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3374889>

Video:

<http://app.dnv.org/council/default.aspx?filename=20170918cr&type=MP4&start=0&end=3023>

March 6, 2017 - Staff provided an update on District initiatives and received direction from Council to prepare a list of issues to help prioritize future efforts.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3140512>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=3166532>

Video:

<http://app.dnv.org/council/default.aspx?filename=20170306cr&type=MP4&start=0&end=2588>

June 21, 2016 - Staff presented the results of a public survey on issues and potential solutions related to single family home renewal.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=2913310>

Minutes: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=2931870>

Video:

<http://app.dnv.org/council/default.aspx?filename=160621cc&type=MP4&start=0000&end=9308>

October 5, 2015 - Staff provided a report to Council which summarizes key issues related to single family home renewal as well as policies and tools the District uses to manage these issues, and suggested actions to further mitigate negative impacts to residents.

Agenda: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=2739843>

Minutes and Video: <https://app.dnv.org/OpenDocument/Default.aspx?docNum=2756569>

Attachment B: Retaining Structures

Legislative Authority:

Municipal governments may regulate the siting and height of residential retaining structures under Section 8 of the *Community Charter*.

Municipal governments may not regulate materials, construction standards, etc. that fall under Provincial authority- the *BC Building Act*- or other regulatory standards. Municipalities may enforce the *BC Building Code* through regulation. The District relies on the *BC Building Code*, other regulatory standards and qualified professionals to ensure some types of retaining structures are planned and constructed in an appropriate, safe manner.

Municipal Comparisons:

The relevant Zoning Bylaw sections for the City of Burnaby, City of Coquitlam, City of New Westminster, City of North Vancouver and District of West Vancouver are included below as these municipalities have topographical similarities to the District. Links are included to Zoning Bylaw sections or public handouts.

City of Burnaby

Permitted retaining wall heights for individual walls range from 3.51 ft. for walls located anywhere on a lot and 5.91 ft. located to the rear of a required front yard. Some differences exist dependant on zoning.

[https://www.burnaby.ca/Assets/city+services/building/Brochures+\\$126+Bulletins/Building+Technical+Information/Fences+and+Retaining+Walls.pdf](https://www.burnaby.ca/Assets/city+services/building/Brochures+$126+Bulletins/Building+Technical+Information/Fences+and+Retaining+Walls.pdf)

City of Coquitlam

Permitted retaining wall heights range from 3.28 ft. within 19.69 ft. of an exterior lot corner to 7.87 ft. under certain conditions for individual walls. An individual retaining wall up to 11.8 ft. maximum is permitted between lots sharing a side or rear yard lot line, with two of these walls combined not being permitted higher than 15.75 ft.

https://www.coquitlam.ca/docs/default-source/zoning-bylaw/Part_05_-_General_Regulations.pdf

City of New Westminster

Permitted retaining wall heights include 2 ft. for walls running along a shared interior or rear lot line, 6 ft. for a window well, 9.84 ft. for bounding pedestrian entrances and 4 ft. for all other retaining walls.

[https://www.newwestcity.ca/database/files/library/Guide_Retaining_Walls\(2\).pdf](https://www.newwestcity.ca/database/files/library/Guide_Retaining_Walls(2).pdf)

City of North Vancouver

No regulations found in the Zoning Bylaw, relies on the *BC Building Code*.

District of West Vancouver

Permitted retaining wall heights are measured by angles, with a requirement of 3.94 ft. in with a 75% slope for front site line or flanking side site lines. 3.94 ft. in with 100% slope is permitted for other site lines. The exposed face of any permitted retaining wall heights may not exceed 7.87 ft. Retaining walls exceeding 3.94 ft. in height must be at least 7.87 ft. from a front or rear site line.

[https://westvancouver.ca/sites/default/files/bylaws/ZONING BYLAW 4662 SECTION 120 GENERAL REGULATIONS FOR ALL ZONES 2.pdf](https://westvancouver.ca/sites/default/files/bylaws/ZONING%20BYLAW%204662%20SECTION%20120%20GENERAL%20REGULATIONS%20FOR%20ALL%20ZONES%202.pdf)

[https://westvancouver.ca/sites/default/files/bylaws/ZONING BYLAW 4662 SECTION 130 GENERAL REGULATIONS FOR RESIDENTIAL ZONES AND USES ONLY 0.pdf](https://westvancouver.ca/sites/default/files/bylaws/ZONING%20BYLAW%204662%20SECTION%20130%20GENERAL%20REGULATIONS%20FOR%20RESIDENTIAL%20ZONES%20AND%20USES%20ONLY%200.pdf)

Attachment C: Grade for Detached Garages

Legislative Authority:

Municipal governments may choose the method of measuring height for detached accessory structures under their regulatory bylaws under Section 8 of the *Community Charter*.

Municipal governments may not regulate materials, construction standards, etc. falling under Provincial authority- the *BC Building Act*- or other regulatory standards. The District relies on the *BC Building Code*, other regulatory standards and qualified professionals to ensure buildings are designed and constructed in an appropriate, safe manner.

Municipal Comparisons:

Accessory buildings are typically either measured from finished grade, or finished grade at point of vehicular access.

The relevant Zoning Bylaw section for the City of Burnaby, City of Coquitlam, City of New Westminster, City of North Vancouver and District of West Vancouver are included below as these municipalities have topographical similarities to the District.

City of Burnaby

Zoning Bylaw Section 6.4(6)- Height of Buildings or Structures

The height of a detached accessory building shall be measured from the calculated average natural grade of all sides of the building to the highest point of the structure, subject to the applicable exceptions in subsections (3) and (4), except that the height of a detached garage or carport may be measured from the finished grade at the point used for vehicular access.

City of Coquitlam

Zoning Bylaw Section 1001 10(6)- RS-1 One-Family Residential

Detached buildings and structures for accessory residential or accessory off-street parking must not exceed a height, measured from finished grade, of:

(i) 3.7 metres; or

(ii) 4.6 metres, for an accessory building that has a roof with a pitch of 4 in 12 or greater for an area of at least 80% of all roof surfaces.

City of New Westminster

Zoning Bylaw Section 310.21- Detached Accessory Building without Detached Accessory Dwelling Unit Regulations

Detached accessory buildings that do not contain a detached accessory dwelling unit:

- (a) shall not exceed one storey, and:*
- (i) in the case of a peaked roof, no portion of the roof shall exceed a height of 4.57 metres(15 feet), or*
 - (ii) in the case of a roof having a pitch of 4:12 or less, no portion of the roof shall exceed a height of 3.6 metres (12 feet);*

City of North Vancouver

Zoning Bylaw Section Part 2- Interpretation

“Height” with reference to an Accessory Structure or a Landscape Screen means the vertical distance between the top of such Structure and the highest finished ground elevation within 0.014 metres (3 feet) of such Structure;

District of West Vancouver

Zoning Bylaw Section 130.01(3)- Accessory Buildings and Structures

An accessory building or structure shall not exceed a height of:

- (a) one storey plus basement; and*
- (b) 3.7 metres from the lower of the average natural or average finished grade, measured around the accessory building or structure, except on sites which include lands identified in Section 204.14 accessory buildings or structures located entirely in the rear 10 metres of the site shall not exceed a height of 3.7 metres from the elevation of the travelled lane surface directly adjacent the subject site.*

Attachment D: Nuisance Lighting

Legislative Authority:

Municipal governments may regulate nuisance caused by illumination under Sections 8(3)(h) and 64(b) of the *Community Charter*.

Municipal governments may not regulate aspects of residential lighting that falls under Provincial authority or other regulatory/manufacturing/safety standards. The District relies on these standards and qualified professionals to ensure lighting is installed in an appropriate, safe manner.

District Residential Lighting Complaints:

Lighting Complaints	2015	2016	2017	2018	2019	Total
Total	2	6	7	5	1	21

Complaints by Permanence	2015	2016	2017	2018	2019	Total
Permanent	2	5	6	4	1	18
Seasonal	0	1	1	1	0	3
Total	2	6	7	5	1	21

Complaints by Type	2015	2016	2017	2018	2019	Total
Recessed	0	0	2	0	0	2
Flood/Spot/Motion	1	5	4	3	0	13
Seasonal	0	1	1	1	0	3
Grouped/Other	1	0	0	1	1	3
Total	2	6	7	5	1	21

Municipal Comparisons:

Of the 22 surveyed Metro Vancouver municipalities, and the City of Victoria, approximately five had regulation or policy to do with regulating nuisance lighting on single family residential properties.

The relevant regulations for the City of New Westminster, City of Vancouver, District of West Vancouver, Village of Belcarra and Village of Lions Bay are included below as these municipalities were found to have regulation to do with residential outdoor lighting.

City of New Westminster

Light Intrusion Bylaw Section 2.

No owner or occupier of real property shall allow or permit an outdoor light to shine directly into the living or sleeping areas of an adjacent residential property in such a way as to disturb the quiet, peace, rest, enjoyment, comfort or convenience of an occupant of the premises.

https://www.newwestcity.ca/database/files/library/7277_Light.pdf

City of Vancouver

Following an extensive Outdoor Lighting Strategy public process, the City of Vancouver recently amended the Untidy Premises By-law No. 4548.

A By-law to amend Untidy Premises By-law No. 4548 regarding outdoor lighting practices Section 2

An owner or occupier of a parcel of real property shall not cause, permit or allow an outdoor light fixture to be placed or lit in such a way that:

(a) the light fixture casts light directly onto a window or other opening of a residential structure located across a street, or adjacent to, the real property; and

(b) the light unreasonably disturbs the peace, rest, enjoyment, comfort or convenience of the owner or occupier of the neighbouring real property.”

<https://bylaws.vancouver.ca/consolidated/12521.PDF>

District of West Vancouver

Good Neighbour Bylaw

5.1.4

(f) no Owner may allow an outdoor light to be placed or lit on a parcel of the Owner such that the light source creates a nuisance in any residential zone;

5.3 Exceptions:

5.3.1 The prohibitions in section 5.1 and the requirement in section 5.2€ do not apply to the following:

(a) Christmas or holiday lights between November 15 and January 15;

<https://westvancouver.ca/sites/default/files/bylaws/4380%20GOOD%20NEIGHBOUR%20BYLAW%204380%202004%20%28CONSOLIDATED%20UP%20TO%20AMENDMENT%20BYLAW%204965%202018%29.PDF>

Village of Belcarra

Good Neighbour Bylaw

Similar to West Vancouver

https://belcarra.ca/assets/media/2019/05/vob-bylaw-361_good-neighbour.pdf

Village of Lions Bay

Good Neighbour Bylaw

Similar to West Vancouver

<http://files.lionsbay.ca/Bylaw%20412%20-%20Good%20Neighbor.pdf>

Additional Resources

International Dark-Sky Association <https://www.darksky.org/>

Royal Astronomical Society of Canada <https://www.rasc.ca/>

Both sites provide public education in the selection of lighting to promote the goal of dark night skies. As noted, some municipalities further restrict the lighting from municipal facilities and new developments in zones directly surrounding an observatory, such as found in Saanich's Zoning Bylaw.

Attachment E: Nuisance Noise

Legislative Authority:

Municipal governments may regulate nuisance caused by noise under Sections 8(3)(h) and 64(b) of the *Community Charter*.

Municipal governments may regulate the siting of outdoor mechanical equipment through their Zoning Bylaw under Section 8(l) of the *Community Charter*.

Local governments may not regulate aspects of outdoor mechanical equipment falling under Provincial authority or other regulatory/manufacturing/safety standards. Depending on the equipment, the District relies on regulatory standards and qualified professionals to ensure this equipment is installed in an appropriate, safe manner.

District Residential Noise Complaints:

Equipment Complaint	2015	2016	2017	2018	2019	Total
Air Conditioning Unit	1	3	4	0	3	11
Heat Pump	2	1	1	0	0	4
Pool	2	3	0	0	3	8
Hot tub	0	0	2	2	1	5
Generator	3	3	1	1	1	9
Total	8	10	8	3	8	37

Municipal Comparisons:

Of the 22 Metro Vancouver municipalities, and the City of Victoria, none were found, except the District, having specific regulation of the listed residential outdoor mechanical equipment in a noise control or regulation bylaw. Some municipalities have general decibel level regulations in these bylaws, which would work to regulate noise levels of outdoor mechanical equipment.

Four municipalities were found to have siting regulations for residential outdoor mechanical equipment in a Zoning Bylaw.

The relevant Zoning Bylaw sections for the City of Coquitlam, City of North Vancouver, City of Pitt Meadows and City of Port Moody are included below as these municipalities were found to have regulation in their Zoning Bylaw to do with the siting of residential outdoor mechanical equipment.

City of Coquitlam

Zoning Bylaw-Current amendment

	Siting Exceptions	Exception Permitted	Additional Requirements
(4)	Exterior heating and cooling equipment and associated venting terminations, Heat pumps, Ancillary swimming pool heating and filtering equipment, Emergency generators	May be sited on any portion of a lot, except as otherwise limited by this or another bylaw.	For <i>one-family residential, two-family residential, triplex residential, quadruplex residential and street-oriented village home residential</i> uses, the subject equipment must be located a minimum of 1.0 metre from the required <i>interior side lot line</i> setback for the zone the building is located in. Venting terminations for central heating and cooling equipment must be located such that they do not vent into the area of a lot adjacent to an <i>interior side lot line</i> . Ancillary swimming pool heating and filtering equipment is restricted to a maximum <i>height</i> of 1.3 metres above grade.

City of North Vancouver

Zoning Bylaw Section 421- Noise Mitigation

(3) recommends exterior and interior design and construction features and practices including, without limitation, the installation of a mechanical heat recovery ventilation system, to mitigate the impact of external and structure borne sound penetration between:

- (a) neighbouring industrial, residential, commercial, community, entertainment, traffic, street pedestrian activities and other uses situated on or off the Lands; and*
- (b) the interior space of all residential dwelling units to be constructed on the Lands.*

City of Pitt Meadows

Zoning Bylaw Section 4.15- Mechanical Equipment

Mechanical equipment that produces noise, vibration, smoke, dust, heat, glare, electrical interference, or other offence or nuisance is permitted only in a rear or exterior side yard but not closer than 1.2 m to any lot line.

City of Port Moody

Zoning Bylaw Section 5.2.15- Mechanical Equipment

Mechanical Equipment For all Residential zones, mechanical equipment located outside of a Building, including but not limited to heat pumps, air conditioners, and pool pumps, shall be located in the Rear Yard or directly adjacent to the rear Building face of the principal Structure with a minimum separation of 1.8m from the Interior Side Lot Line.

Attachment F: Landscape Retention and Hard Surfaces

Legislative Authority:

Municipal governments have the ability to regulate open space on residential lots through Zoning Bylaw regulations to do with lot coverage and siting of structures. Further, residential lots may have impermeable area maximums regulated under a municipal Zoning Bylaw.

Municipal governments have limited ability to regulate landscaping on single family residential lots. Screening and Landscaping to mask or separate uses under Section 527 of the *Local Government Act* may be used to establish minimum screening and landscaping standards for single family homes. However, it is anticipated that outside of a building permit system linked to single family home redevelopment, routine compliance monitoring, and complaint-based enforcement mechanisms would be cost prohibitive for the District and divisive for neighbours.

Municipal governments may use Development Permits under Section 488 to 491 of the *Local Government Act* to protect the natural environment, protect development from hazards, establish objectives for the form and character of commercial, industrial and multi-family development, promoted energy & water conservation, and promote the reduction of greenhouse gas emissions. Legislation does not provide local governments with the authority to require form and character development permits for single family homes. Therefore, development permits provide a very limited opportunity to preserve and protect trees and shrubs that merely provide aesthetic benefits without also being required to achieve some other objective like protecting development from hazardous conditions.

Municipal Comparisons:

Of the 22 surveyed Metro Vancouver municipalities and the City of Victoria, nine had zoning bylaw regulation to do with impermeable or permeable surface area regulations in single family residential lots. The following table represents the largest maximums for impermeable surfaces areas, permeable area requirements and/or front yard landscaping requirements found in single family residential zones of municipal Zoning Bylaws. Note each municipality may consider different materials permeable/impermeable.

Municipality	% Permeable Required			% Impermeable Maximum			Front Yard Landscaping Requirement
	Front Yard	Back Yard	Entire Lot	Front Yard	Back Yard	Entire Lot	
City of Burnaby						70%	
City of Delta						60%	50%
City of Pitt Meadows						70%	
City of Port Coquitlam			65-70%				
City of Port Moody				50%			
City of Richmond	50-55%						50-55%
City of Vancouver						60%	
District of West Vancouver				50%			
Village of Anmore			30%				
Village of Bellcara			30%				

The relevant Zoning Bylaw sections for the City of Burnaby and District of West Vancouver are included below as these municipalities share topographical similarities to The District and had regulation related to permeable surfaces/front yard landscaping in their zoning bylaws.

City of Burnaby

Zoning Bylaw Section 6.24- Impervious Surfaces

- (1) This section applies only to Lots in R (Residential) Districts for which an application for a building permit has been made after July 1, 2005 for the construction of a new principal building, whether on new or existing building foundations.*
- (2) Not more than 70 per cent of the total area of a lot to which this section applies shall be covered by impervious materials.*
- (3) In this section "impervious materials" include*
 - (a) buildings and structures;*
 - (b) asphalt;*
 - (c) concrete;*
 - (d) grouted pavers;*
 - (e) subject to subsection (f), ungrouted pavers having a surface area on their largest face of more than 0.21 m² (2.25 sq.ft)*

but does not include:

- (f) ungrouted pavers having a surface area on their largest face of not more than 0.372 m² (4 sq.ft.) arranged in a line of single pavers to form a pedestrian walkway with a permeable gap between the pavers;*
- (g) water surfaces of structures designed to retain water, including swimming pools, reflecting pools, and ornamental ponds.*

District of West Vancouver

Zoning Bylaw Section 130.15(7)- Site Landscaping

Impermeable surfaces in front yards must not exceed 50% of the area of the front yard as defined in this Zoning Bylaw, provided that in all cases a pedestrian sidewalk with a maximum width of 1.5 m, a driveway with a maximum width of 4.5 m, and a sufficient area for turning passenger vehicles are permitted in the front yard or the flanking yard on a corner flanking site to provide access by impermeable surface from the abutting street to the principal building on the site.

Zoning Bylaw Section 110- Definitions

Impermeable Surface means any consolidated surface such as asphalt or concrete that prevents the absorption of precipitation into the soil, but excludes any area of a lot comprising of exposed bedrock.

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The Corporation of the District of North Vancouver

Bylaw 8472

A bylaw to amend District of North Vancouver Bylaw 3210, 1965

The Council for The Corporation of the District of North Vancouver enacts as follows:

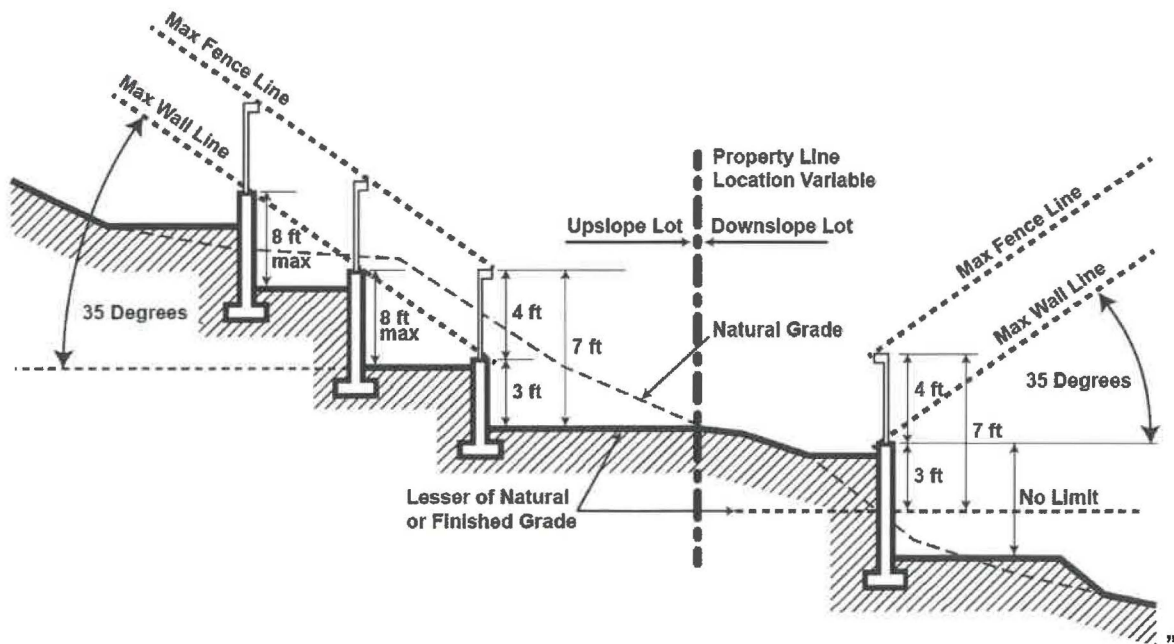
Citation

1. This bylaw may be cited as "District of North Vancouver Rezoning Bylaw 1404 (Bylaw 8472)".

Amendments

2. District of North Vancouver Zoning Bylaw 3210, 1965 is amended by deleting Section 409(3) and replacing with:

"(3) Retaining walls may be constructed within the required setback area of a lot when the wall or walls do not extend above a line commencing 3.0 feet above the lesser of natural grade and finished grade at the outer face of the outermost wall and subsequent walls do not extend above a line 8.0 feet above the lesser of natural grade and finished grade and projected upward and inward on the lot at an angle of 35° as illustrated by the following diagram:



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Municipal Clerk

APPROVED by the Ministry of Transportation and Infrastructure on

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

The Corporation of the District of North Vancouver**Bylaw 8476**

A bylaw to amend District of North Vancouver Bylaw 3210, 1965

The Council for The Corporation of the District of North Vancouver enacts as follows:

Citation

1. This bylaw may be cited as "District of North Vancouver Rezoning Bylaw 1405 (Bylaw 8476)".

Amendments

2. District of North Vancouver Zoning Bylaw 3210, 1965 is amended by deleting the interpretation of "height" in Part 2 and replacing with:

““height” means:

- (i) with respect to a building or structure in a single family residential zone the greatest vertical distance measured from the building height base line to the topmost part of the building or structure, except that in the case of an accessory building or structure it shall be the vertical distance measured from the floor level to the highest point of the building or structure except in no case shall the floor level of the structure be more than 4 feet above natural grade at any point.”

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The Corporation of the District of North Vancouver

Bylaw 8473

A bylaw to amend Nuisance Abatement Bylaw 7325, 2002

The Council for The Corporation of the District of North Vancouver enacts as follows:

Citation

1. This bylaw may be cited as "Nuisance Abatement Bylaw 7325, 2002 Amendment Bylaw 8473, 2020 (Amendment 5)".

Amendments

2. Nuisance Abatement Bylaw 7325, 2002 is amended by deleting:
 - a) subsection 6(e)(i) and substituting the following:
 - (i) the owner of the property is in possession of a valid building permit in respect of such Building Materials;
 - b) subsection 9(a) and substituting the following:
 - (a) Christmas or holiday lights between November 15 and January 15, Halloween lights between October 1 and November 7, provided such lighting is turned off by 11:00 p.m. each day and remains off overnight until the following day;
 - c) sections 10 through 22 inclusive and substituting the following and re-numbering the remaining sections accordingly:

PART X – OFFENCE AND ENFORCEMENT

Entry

10. Bylaw Enforcement Officers and members of the Royal Canadian Mounted Police are authorized, in accordance with section 16 of the *Community Charter*, SBC 2003, c. 26, as amended or replaced, to enter at any reasonable time onto property to inspect and determine whether the regulations of this bylaw are being complied with.

Obstruction

11. A person must not interfere with, delay, obstruct or impede a Bylaw Enforcement Officer or designate or other person lawfully authorized to enforce this bylaw in the performance of duties under this bylaw.

Violations

12. Every person who violates any of the provisions of this bylaw or who suffers or permits any act or thing to be done in contravention of this bylaw or who neglects to do or refrains from doing any act or thing which violates any of the provisions of this bylaw will be liable to the penalties hereby imposed and each day that such violation is permitted to exist will constitute a separate offence.

Penalty

13. Every person who commits an offence contrary to the provisions of this bylaw is liable on summary conviction to a penalty of not more than \$50,000.00 in addition to the costs of the prosecution.

Designation of Bylaw

14. This bylaw is designated under section 264 of the *Community Charter* as a bylaw that may be enforced by means of a ticket in the form prescribed.

Designation of Bylaw Enforcement Officer

15. Bylaw Enforcement Officers, park rangers and members of the Royal Canadian Mounted Police are designated to enforce this bylaw by means of a ticket under section 264 of the *Community Charter*.

Ticketing

16. Pursuant to Sections 264(1)(c) and 265(1)(a) of the *Community Charter*, the table below sets out the designated expressions for offences under this bylaw with the corresponding bylaw section number and fine amount:

DESIGNATED EXPRESSION	SECTION	FINE (\$)
Causing a nuisance	3	300
Permit a nuisance	4	200
Unightly property	5	200
Permitting rubbish to collect	6(a)	200
Depositing rubbish	6(b)	200
Run stationary vehicle	6(c)	100
Outdoor light visible	6(d)	100
Accumulation of building materials	6(e)	200
Unauthorized vehicle storage	6(f)	200
Accumulation of vehicle parts	6(f)	200
Shipping container stored in residential zone	6(g)	200
Fail to remove discarded material/rubbish	8(a)	200
Fail to clear noxious insects	8(c)	200
Fail to clear brush	8(d)	200
Fail to shield outdoor light	8(e)	100
Fail to turn off lighting	9(a)	100
Obstruction	11	300

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Mayor

Municipal Clerk

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Municipal Clerk

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The Corporation of the District of North Vancouver

Bylaw 8474

A bylaw to amend Bylaw Notice Enforcement Bylaw 7458, 2004

The Council for The Corporation of the District of North Vancouver enacts as follows:

Citation

1. This bylaw may be cited as “Bylaw Notice Enforcement Bylaw 7458, 2004 Amendment Bylaw 8474, 2020 (Amendment 56)”.

Amendments

2. Schedule A of the Bylaw Notice Enforcement Bylaw 7458, 2004 is amended by:
 - a) deleting the contraventions of the Nuisance Abatement Bylaw 7325, 2002 and substituting the following:

Bylaw Section	Description The following fines apply to the contraventions below:	A1	A2	A3	A4	A5
		Penalty Amount (\$)	Discounted Penalty: Within 14 days (\$)	Late Payment: After 28 days (\$)	Compliance Agreement Available	Compliance Agreement Discount
3	Causing a nuisance	200	150	300	NO	N/A
4	Permit a nuisance	200	150	300	NO	N/A
5	Unightly property	200	150	300	NO	N/A
6(a)	Permitting rubbish to collect	200	150	300	NO	N/A
6(b)	Depositing rubbish	200	150	300	NO	N/A
6(c)	Run stationary vehicle	100	75	150	NO	N/A
6(d)	Outdoor light visible	100	75	150	NO	N/A
6(e)	Accumulation of building materials	200	150	300	NO	N/A
6(f)	Unauthorized vehicle storage	200	150	300	NO	N/A
6(f)	Accumulation of vehicle parts	100	75	150	NO	N/A
6(g)	Shipping container stored in residential zone	200	150	150	NO	N/A
8(a)	Fail to remove discarded material/rubbish	200	150	300	NO	N/A
8(c)	Fail to clear noxious insects	200	150	300	NO	N/A
8(d)	Fail to clear brush	200	150	300	NO	N/A
8(e)	Failure to shield outdoor light	100	75	150	NO	N/A
9(a)	Failure to turn off lighting	100	75	150	NO	N/A
11	Obstruction	300	225	450	NO	N/A

- b) deleting the contraventions for the Taxicab Regulation Bylaw 7613, 2006 in their entirety.

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Mayor

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Attachment G: Floor space exemptions for basements

Current Approach:

The District regulates single family house floor space basements exemptions through the Zoning Bylaw in the following manner:

410 Floor Space Ratio Exemptions

The following are excluded from floor space ratio calculations:

- (1) *For single family residential buildings, exclude:*
- (a) *the floor area contained within that part of buildings and structures having an adjacent exposed perimeter wall of less than 4.0 feet from the floor above to the lesser of natural grade and finished grade as illustrated by the following diagram and formulas*

$$F.S.R. = \frac{A}{\text{Lot Area}}$$

$$A = B + C \left(\frac{p^2}{p^1} \right)$$

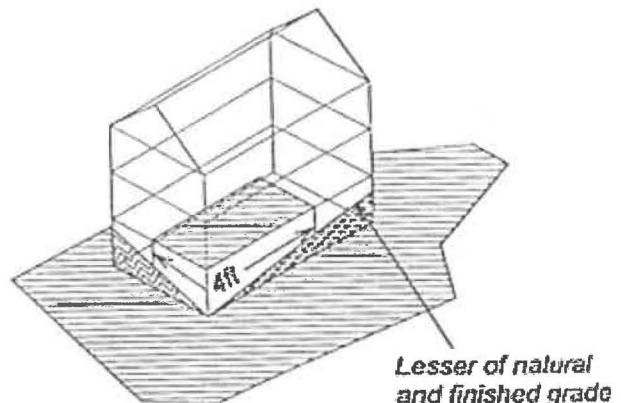
A - Total floor area to be included in F.S.R. calculation

B - Total floor area of all storeys wholly above grade

C - Total floor area of all storeys partially below grade

p¹ - Total perimeter length of a storey partially below ground

p² - Length of p¹ exposed 4ft or more from floor above



This means any portion of a basement no more than 4' above the lesser of natural or finished grade is not counted towards floor space. In circumstances where there is a portion of the basement level more than 4' above the lesser of natural or finished grade the calculation is used to exclude only the portion that is no more than 4' above the lesser of natural or finished grade.

Municipal Comparison:

Other municipalities differ in their approaches to including basements in floor space calculations. These approaches range from simply including some or all of the space of a basement, to including certain uses or areas within a basement, to not including basements such as the District currently does for those portions fully under grade.

All three North Shore municipalities limit basement exemptions to the area directly below the storey above.

In 2018, the City of North Vancouver began to exclude basements from gross floor area calculations to encourage more liveable space (i.e. more light) for secondary suites in their one and two-unit residential zones. Previously only cellars (level of a house more than 1.52 metres below average grade as defined by the City) were excluded from gross floor area calculations. This encouraged secondary suites to be located in a cellar which has impacts to liveability.

Other municipalities specify certain uses within a basement which may be excluded, such as the City of Burnaby does when excluding carports in single-family residential zones located within a cellar.

Municipality	Basement Excluded from Floor Space
District of North Vancouver	Yes
District of West Vancouver	Yes
City of North Vancouver	Yes
City of Vancouver	No
City of Coquitlam	No
City of Burnaby	No
Village of Lions Bay	No

Basement siting varies between municipalities. When a basement counts towards gross floor area this naturally limits the desired size. Site specific constraints, setbacks from natural features, or roadways, etc. may impact the siting of basements.

Note the municipal scan did not consider crawl spaces which typically are not included in floor space or site-specific constraints which would prevent the construction of a basement. Municipalities might exclude other uses from floor space which, if happen to be in a basement, would not count towards FSR such as a mechanical room. Partially above and partially below grade basements may use a calculation to determine what portion of a basement is excluded.

Attachment H: Information on maximum house sizes

Current Approach:

House size in the general single family zones (RS1 to RS5) is regulated by a maximum permitted floor space ratio (FSR) that varies with lot size. Each of the below zones also establishes a maximum principal building (house) size meaning maximum house size is limited to the lesser of the two maximums. The Zoning Bylaw contains several exemptions from floor space, including basements, which would not be counted towards the maximum house size permitted.

The table below identifies the permitted floor space ratio and the maximum principal building size from the District's Zoning Bylaw for each Residential Single Family zone.

Single Family Zone	FLOOR SPACE RATIO (FSR)		Maximum House Size
	Lots ≤ 5,000 sq.ft.	Lots > 5,000 sq.ft.	
RS1	0.45	0.35 + 350 sq.ft.	5,813 sq.ft.
RS2	0.45	0.35 + 350 sq.ft.	5,813 sq.ft.
RS3	0.45	0.35 + 350 sq.ft.	4,359 sq.ft.
RS4	0.45	0.35 + 350 sq.ft.	3,013 sq.ft.
RS5	0.45	0.35 + 350 sq.ft.	2,045 sq.ft.
RS Canyon Heights	0.35 + 350 sq.ft.		4,359 sq.ft.
RS Delbrook	0.43		5,005 sq.ft.
RS Edgemont	0.35 + 350 sq.ft.		3,500 sq.ft.
RS Edgemont West	0.35 + 350 sq.ft.		4,359 sq.ft.
RS Highlands	0.40		4,359 sq.ft.
RS Kilmer	0.55		3,014 sq.ft.
RS Keith Lynn	0.45	0.35 + 350 sq.ft.	3,013 sq.ft.
RS Murdo Frazer	0.45	0.35 + 350 sq.ft.	3,013 sq.ft.
RS Marlborough Heights	0.35 + 1,000 sq.ft.		5,005 sq.ft.
RS Norgate	0.40		3,000 sq.ft.
RS Norwood Queens	0.45	0.35 + 350 sq.ft.	4,359 sq.ft.
RS Pemberton Heights	For Lots < or = 5,000	0.45	3,013 sq.ft. 5,813 sq.ft.
	For lots 5,001 – 11,000	.35 + 350 sq.ft.	
	For lots > 11,999	.35 + 350 sq.ft.	
RS Queensdale	The greater of 2,200 sq.ft. or 0.45		5,940 sq.ft.
RS Sunset Gardens	0.35 + 350 sq.ft.		4,359 sq.ft.
All Above	In the case of rooms having ceilings greater than 3.66m (12 ft) above the level of the floor area – that area above 12 ft shall be counted as if it were an additional floor level and included in FSR		

Municipal Comparison:

The City of North Vancouver, District of West Vancouver and Village of Lions Bay regulate maximum house size via a ratio based on lot size (also one method the District uses). This ensures the principal dwelling is built to an appropriate scale. Other buildings on a lot would typically also count towards a lot's maximum FSR, for example, a coach house.

Municipalities use a range of other regulations besides maximum FSR which also work to control and shape house size and appearance. For example, maximum height, maximum number of floors, maximum site coverage, limits to retaining walls, setbacks (both of house to lot lines and between structures on the lot), permeable area minimums, etc.

The City of Coquitlam takes a different approach to regulating maximum house size. There is no maximum square footage applied via FSR requirements. Rather, the maximum volume of a building is based on a calculation of perimeter wall area and perimeter wall height for each face of the building. This achieves the desired result of staggered wall faces, and as such, greater building articulation and a reduction in overall massing.

The table below displays other north shore municipalities' minimum lot sizes and FSRs. It only contains those zones which are intended for single-family dwellings. Municipalities have differing minimum lot sizes and thus differing maximum house sizes which would be permitted based on FSR.

Municipality	Zone	Minimum Lot Size	Maximum GFA
City of North Vancouver	RS-1: One-Unit Residential 1	N/A (regulated via lot frontage, etc.)	Lessor of 0.3 x lot area + 92.9 m ² or 0.5 x area
	RS-2: One-unit Residential 2	N/A (regulated via lot frontage, etc.)	Lessor of 0.3 x lot area + 92.9 m ² or 0.5 x area
District of West Vancouver ¹	RS1: Single Family Dwelling Zone 1	8,094 m ²	(1) 0.35 of site area maximum, if site area is greater than 677 m ² ; or (2) 237 m ² maximum, if site area is between 474 m ² and 677 m ² ; or (3) 0.5 of site area maximum, if site

			area is less than 474 m ²
	RS2: Single Family Dwelling Zone 2	1,858 m ²	“
	RS3: Single Family Dwelling Zone 3	1,115 m ²	“
	RS4: Single Family Dwelling Zone 4	836 m ²	“
	RS5: Single Family Dwelling Zone 5	558 m ²	“
Village of Lions Bay	RS-1: Residential - Single Detached	8000 m ² (density may be averaged to 800 m ² with a 700m ² minimum parcel area when amenities provided under <i>Community Amenity Contribution Policy</i>)	0.35 FSA

¹ The District of West Vancouver has other residential zones which permit single family use but also permit other residential uses (such as cluster housing). These have not been included in this table.

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