

PUBLIC HEARING BINDER

Rezoning Bylaw 1365 (Bylaw 8273)

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<input checked="" type="checkbox"/> Regular Meeting	Date: <u>Nov 6, 2017</u>
<input type="checkbox"/> Council Workshop	Date: _____



The District of North Vancouver REPORT TO COMMITTEE

October 25, 2017
File: 09.3900.01/00

AUTHOR: Brett Dwyer, Manager Development Services

SUBJECT: New Construction Bylaw, Building Act and Energy Step Code Implementation

RECOMMENDATION:

THAT the report titled "New Construction Bylaw, Building Act and Energy Step Code Implementation" from the Manager, Development Services dated October 25, 2017 be received for information;

THAT "Construction Bylaw 8271, 2017" be given FIRST, SECOND and THIRD reading;

THAT "Radio Amplification Bylaw 8272, 2017" be given FIRST, SECOND and THIRD reading;

THAT "Bylaw Notice Enforcement Bylaw 7458, 2004, Amendment Bylaw 8274, 2017 (Amendment 32)" be given FIRST, SECOND and THIRD reading;

THAT "District of North Vancouver Rezoning Bylaw 1365 (Bylaw 8273)" to delete section 4C03 Density Bonus for Energy Performance and associated references from District of North Vancouver Zoning Bylaw 3210, 1965 be given FIRST reading;

THAT Bylaw 8273 be referred to Public Hearing;

THAT District Policy 8.3320.7 Green Building Policy – Private Sector Developments be rescinded effective July 1, 2018; and

THAT Council authorize staff to pursue a local variation under the *Building Act* to enable the District to continue regulating stacked rock walls.

REASON FOR REPORT:

The new *Building Act* requires the District to revise its construction related bylaws and to incorporate provisions to implement the BC Energy Step Code. This report proposes a new consolidated Construction Bylaw, a new Radio Repeater Bylaw, rescinding of the Green Building Policy for Private Sector Developments as well as consequential amendments to the

Zoning Bylaw. Related amendments to the Fees and Charges bylaw have been incorporated into Finance's annual comprehensive review of the Fees and Charges.

SUMMARY:

Construction in the District is regulated by varied bylaws including the Building Regulation Bylaw (Bylaw 7353), Electrical Bylaw (Bylaw 7464) and Gas Bylaw (Bylaw 7465). These bylaws require updating to align with current best practices, new processes and the new Provincial *Building Act*. It is proposed to consolidate the abovementioned bylaws into one new Construction Bylaw. Through the *Building Act* the Province has also introduced the Energy Step Code as well as allowing Municipalities to regulate certain unrestricted matters. To that end staff are recommending a gradual approach to Step Code implementation and in consultation with the Fire Rescue Service a new bylaw to regulate radio repeaters for emergency communication.

BACKGROUND:

Staff presented the approach to the new Construction Bylaw and the Step Code at a workshop on July 23, 2017. Further refinements to the bylaw have been undertaken as well as preparation of the varied necessary consequential bylaw and policy amendments. Industry consultation has been undertaken and is summarized in the relevant section of this report.

The BC Building Code applies to all municipalities in BC (except for the City of Vancouver and lands under Provincial or Federal jurisdiction exempt by agreement) and has the same force and effect as if it were adopted as a District bylaw. Owners are fully responsible for carrying out the work or having the work carried out on their behalf in full compliance with the Code. It is however up to individual municipalities to determine how and if they regulate construction (i.e. plan review and approval, issuance of permits and undertaking of inspections). The District currently regulates construction through its Building, Electrical and Gas Bylaws.

The Province enacted the *Building Act* (the Act) in March 2015, and various section of the Act have come into force as enabling regulations have been adopted. The Act creates implications for the new Construction Bylaw as it places restrictions on a local government's ability to implement local building regulations, i.e. create regulations that go above and beyond what is prescribed in the BC Building Code.

EXISTING POLICY:

The current Building Regulation Bylaw was adopted by Council on December 1, 2003 and the Electrical and Gas Bylaws were both adopted by Council on May 17, 2004. District Policy 8.3320.7 Green Building Policy – Private Sector Developments was adopted by Council on November 15, 2010.

ANALYSIS:

In drafting the new Construction bylaw the process was driven by a number of guiding principles as follows:

- Reduce, where possible, municipal risk and exposure using the Municipal Insurance Association of British Columbia (MIA) Model Bylaw as a reference guide. The MIA Model Bylaw is a template bylaw developed and recommended by the Municipal Insurance Association.
- Shift from prescriptive to empowering regulation.
- Maintain a high level of occupant life safety and public safety.
- Consolidate construction related regulations where appropriate.
- Clarify matters or regulations that have been ambiguous or open to a range of interpretations.
- Reconcile inconsistent provisions.
- Delete repetitive, redundant or unnecessary provisions.
- Group like provisions together for ease of use.
- Encourage consistent standards for discretionary energy and fire regulations across the North Shore.

Fundamentals of the Construction Bylaw

The bylaw sets out provisions for review and approval of construction projects; it sets out the inspection process and the requirements for project completion; it established requirements for security deposits, owner and constructor responsibilities; delegates certain powers to staff; establishes where professional certification is required; and regulates, as appropriate, building-related life safety matters. The bylaw also establishes ticketing provisions for infractions and non-compliances.

The bylaw specifies its scope in providing limited and interim spot checking during construction. It is not possible or practical for a municipality to go beyond this limitation. It does not impart on the District any undue responsibility for ensuring compliance with the Building Code (this ultimately rests with the property owner), it does not provide any warranty of design or workmanship.

The bylaw adopts an approach of limited spot checking during construction for Simple Buildings where inspections will be carried out at predetermined stages of construction (i.e. footings, framing and final) and adopts an approach of Compliance Monitoring for Complex Buildings where the District will rely upon professional assurances for design, field review and compliance.

Bylaw Changes and Improvements

The following is a list of notable changes or improvements from the current Building Regulation Bylaw:

1. The revised bylaw will consolidate the Building, Electrical and Gas Bylaws so that these construction related regulations are contained in one bylaw.

2. Requirement for construction notice to be placed on construction sites with relevant information including contractor contact information and permitted construction hours to better inform the neighbours and nearby residents.
3. Requirement added for “Preconstruction Meeting” for single family new construction projects to go over ‘Good Neighbour’ requirements and possible site specific issues with the contractor to minimise impacts to adjoining property owners and the neighbourhood in general.
4. Authority to require a detailed shoring plan for deep excavations in addition to professional letters of assurance.
5. Revision and rationalization of the required inspections.
6. Requirement for a building envelope professional for new single-family construction.
7. Provisions to enable the District to move towards a risk-based approach to inspections, where low risk inspections for a high performing contractor can be waived (based on recorded performance measures) to free up inspectors’ time for more value-added tasks and duties.
8. Enable a single security deposit taken on a construction project to do multiple duties. (i.e. rather than take separate security deposits for building and landscape, tree replacement, soil and driveway removal)
9. Strengthened environmental controls with corresponding ticketing provisions.
10. Bylaw simplified by moving many of the detailed application requirements to a Master Requirement List.
11. New sound transmission provisions as a general provision to the Construction Bylaw.

The *Building Act*

The *Building Act* received royal assent on March 25, 2015, although many of its provisions have only come into effect with the creation of subsequent supporting or enabling regulations. The benefits provided by the Act, as stated by the Province, are to promote consistency of code application, competency of building officials and innovation in construction.

The main matters contained within the Act for local government consideration are the broad powers provided to the Minister, the restriction on local building requirements and the requirement for qualified building officials.

Broad Powers

The Act gives the Minister very broad powers to create regulations that could potentially dictate how municipalities undertake review, inspections and enforcement related to construction projects. The Province, through the Building Safety Standards Branch, has stated that it does not intend to regulate how municipalities administer and enforce the code; however the Act clearly allows for this.

For example, the Act gives the Minister the power to make regulations that may:

- a) prescribe requirements in respect of building activities;
- b) prescribe requirements for the reduction of safety risks on sites where building activities occur;
- c) prescribe requirements in respect of one or more of the following:
 - i. the design of buildings or planning of building activities;
 - ii. the inspection of buildings or building activities;

- iii. the designs, plans, notices, reports or other records relating to an activity referred to in subparagraph (i) or (ii);
- iv. the preparation, retention or inspection of records;
- v. any other matter that the minister considers necessary or advisable.

It is not known at this time if any additional regulations will be pursued by the Province. Staff will monitor Provincial actions and update Council as appropriate.

Qualification of Building Officials

Under the Act building officials working for local governments will need to be qualified if they are making decisions about compliance with the BC Building Code. The Act establishes mandatory minimum qualifications for “Building Officials”. The extent to which a Building Official will be able to work on a particular class of building or construction project will be dependent on their level of qualification. This relates to all stages of review and construction. For example, a building official that reviews and approves Part 9 buildings (primarily single family dwellings) is required to have a minimum building level 1 class qualification. Similarly a building official inspecting Part 9 buildings requires the same level qualifications. Likewise a building official reviewing, approving or monitoring construction on Part 3 buildings (larger complex buildings) is required to have and maintain building level 3 class qualifications. A transition period of 4 years was provided from the effective date of February 28, 2017, intended to give individuals time to undertake the required training, exams and experience. This provision will take effect on February 28, 2021. Current District staff are well positioned for this transition date and appropriate hiring practices and training opportunities have been put in place to ensure the District meets these future requirements.

Restriction on Local Building Requirements

The Act restricts local government from regulating any matter regulated by the BC Building Code to a standard higher than the code. Examples of local building requirements would include green building density bonus zoning in the District’s Zoning bylaw and stacked rock wall prohibition in the Building Regulation bylaw. A 2-year grace period was provided from the effective date of December 15, 2015, so that after December 15, 2017, any provision regulating to a standard higher than the BC Building Code would have no effect. The exception to this relates to ‘Unrestricted matters’ and ‘Time-limited unrestricted matters’ which have been listed in the subsequent *Building Act* General Regulation as well as matters that have been deemed ‘Out of Scope’ by the Province. The rationale under which a matter may be designated as Unrestricted is if the matter relates to a specific physical location or local circumstance that local governments are best suited to regulate, or matters for which a local government aims to achieve are primarily non-BC Building Code objectives using an existing statutory authority, and the enacted technical building requirement is necessary to achieve the objective. Time-limited unrestricted are matters that could be the subject of a new or revised BC Building Code requirement or a local government variation request.

Where the District wishes to continue to regulate matters related to the BC Building Code, section 219 covenants may be used. However, these are only available where a project requires a discretionary approval such as OCP amendment, rezoning or temporary use permit.

In addition, the Province has established the BC Energy Step Code which allows local governments to establish, by bylaw, higher building energy performance standards. There are also provisions for a local government to apply to the Province where they feel a local building requirement is appropriate for a 'Local Variation'. Provincial consideration of local variations are subject to prescribed cost-recovery provisions.

Each of the above-noted exceptions are discussed in the following sections.

Unrestricted Matters

Unrestricted matters are prescribed matters that are not subject to the restrictions on local building requirements under the Act. This means that these matters can be regulated by a local government to a higher or enhanced standard beyond the BC Building Code. The unrestricted matters listed in the regulation are as follows:

1. Parking stalls for persons with disabilities;
2. Design of access for firefighting;
3. Water supply for firefighting;
4. Flood construction regulation;
5. Heritage protection;
6. Development Permit requirements for wildfire, form and character, and conservation of energy and water and reduction of greenhouse gas emissions;
7. District energy systems;
8. Sound transmission into buildings; and
9. Radio repeater systems for emergency communications.

Subsequently, any bylaw regulating these matters will remain valid after Dec 15, 2017. Given the list of unrestricted matters staff are proposing that regulations relating to sound transmission into buildings be included in the new construction bylaw. In addition a new bylaw is proposed to require radio repeaters for emergency communication in certain building types and compliance will be a requirement in the new Construction Bylaw.

Time-Limited Unrestricted Matters

Time-limited unrestricted matters are matters prescribed in the regulation that are not subject to the restrictions on local building requirements under the Act but only up until Dec 15, 2017. This means that these matters can be regulated by a local government to a higher or enhanced standard beyond the BC Building Code provided the requirement is created before, and not amended after, Dec 15, 2017. The time-limited unrestricted matters listed in the regulation are as follows:

1. Fire sprinklers;
2. Accessibility of buildings; and
3. Adaptable dwelling units.

Given this list of time-limited unrestricted matters staff will be maintaining the fire sprinkler provision and adding a provision for compliance with the District's Accessible Design Policy for Multi-Family Housing.

It is understood that the Province may subsequently review these time-limited matters with a view to creating specific regulations or code provisions that municipalities would have to transition to over time.

Out of Scope matters

In addition to unrestricted matters the Province has indicated that certain other matters are 'out of scope' and subsequently not subject to the *Building Act* provisions which limit the ability of a local government to regulate. These include electric vehicle charging infrastructure, testing of backflow prevention devices, cross-connections outside of property line and screening of rooftop mechanical equipment. In this regard the District can continue to regulate and/or manage these matters as appropriate.

Section 219 Covenants

Section 219 covenants are seen as an available vehicle to achieve what may otherwise be considered a local building regulation. Section 219 covenants are generally negotiated for a variety of matters through the rezoning process, currently including green building standards, accessible design, stormwater management, etc. Where a matter would otherwise not be allowed as a local building requirement, a section 219 covenant could be used. For example, on a sloping site being redeveloped staff may deem it appropriate to require a section 219 covenant prohibiting the use of stacked rock walls. Without such covenant staff could not limit the use of stacked rock walls at the building permit stage as this would be considered a local building requirement. Equally, a 219 covenant could be used to manage other matters respecting the use of land and buildings, the building on land, the subdivision of land, the separate sale of parcels of land, or the preservation, protection or restoration of land and specified amenities in relation to the land.

Local Variations

The Act permits a local government to request a 'local authority variation' as a way of addressing local needs. It is assessed on a cost-recovery basis and requires the Minister's approval. Staff presented stacked rock walls as a possible local variation request in the public workshop on July 23, 2017. The District currently defines and prohibits stacked rock walls which would otherwise be considered a local building requirement under the *Building Act* after Dec 15, 2017.

The District has a relatively long-standing practice of regulating stacked rock walls through bylaw and policy since 1994. The Building Regulation Bylaw currently provides a definition for a stacked rock wall and subsequently prohibits their construction on land zoned for residential use.

Staff are recommending that Council authorize staff to request, through the Province, a local variation to enable the District to continue regulating stacked rock retaining walls.

Energy Step Code

The BC Energy Step Code was created by a Ministerial Order under the *Building Act* on April 7, 2017. The Step Code is a series of incremental steps that prescribe progressive performance targets related to building energy efficiency from the current BC Building Code requirements to net zero ready buildings. The Energy Step Code only applies to new

buildings and entirely new additions. It is a tool that local governments can use to encourage or require the construction of more energy efficient buildings in a predictable way. The expectation from the Province is that by 2032 all new buildings will be 'net zero energy ready'. The Province defines a net zero ready building as a building built to high energy-efficiency standards such that it could (with additional measures) generate enough onsite energy to meet its own energy needs.

Under the Energy Step Code the Province has created 5 steps for Part 9 residential buildings (single family, duplex and smaller townhouse projects). The higher the step, the higher the energy performance of the building, with step 5 being 'net zero ready'.

The BC Energy Step Code: Steps for Part 9 Buildings



For certain Part 3 Buildings (multi-family residential, mercantile, business and personal service) the Step Code prescribes up to 4 steps; step 4 being the highest from an energy performance perspective.

The following table shows the 4 energy steps for Group C classification (residential) buildings. Each increasing step prescribes a decreasing maximum total energy use intensity and maximum thermal energy demand intensity that the building will need to meet. All buildings designed and built under the step code will require energy modelling upfront and airtightness testing during construction.

Energy Performance Requirements for Residential Occupancies
 Forming Part of Sentences 10.2.3.3.(1) and (2)

Step	Equipment and Systems – Maximum Total Energy Use Intensity (kWh/m ² ·year)	Building Envelope – Maximum Thermal Energy Demand Intensity (kWh/m ² ·year)
1	Conform to Part 8 of the NECB	
2	130	45
3	120	30
4	100	15

The following table shows the 3 energy steps for Group D and E classification (commercial and retail) buildings. Again, each increasing step prescribes a decreasing maximum total energy use intensity and maximum thermal energy demand intensity that the building will need to meet with required energy modelling and airtightness testing.

Energy Performance Requirements for Business and Personal Services or Mercantile Occupancies
 Forming Part of Sentences 10.2.3.3.(1) and (2)

Step	Equipment and Systems – Maximum Total Energy Use Intensity (kWh/m ² ·year)	Building Envelope – Maximum Thermal Energy Demand Intensity (kWh/m ² ·year)
1	Conform to Part 8 of the NECB	
2	170	30
3	120	20

The Province is encouraging municipalities that want to implement the step code to implement the lower steps only initially and gradually 'ladder up' to the higher steps.

BC Energy Step Code: Lower and Higher Steps		
Building Type	Lower Steps	Higher Steps
Part 3 Residential	Steps 1 and 2	Steps 3 and 4
Part 9 Residential	Steps 1, 2 and 3	Steps 4 and 5

Staff's proposed approach to the Step Code was presented at the public workshop on July 23, 2017. The gradual approach was for commercial and residential development to meet Step 1 on Dec 15, 2017 with residential then laddering up to Step 2 or 3 (depending on building type and whether rezoning was required) on July 1, 2018.

As a result of industry consultation and further consideration by staff a more simplified approach to Step Code implementation in the District is proposed where implementation commences July 1, 2018. The simplified approach to the Step Code is as follows:-

- July 1, 2018 – Part 3 Commercial to meet Step 1
- July 1, 2018 – Part 3 Residential to meet Step 2*
- July 1, 2018 – Part 9 Residential to meet step 3

*Part 3 Residential projects will be required to meet Step 3 if rezoning is required.

This simplified approach provides for an easier operational transition to the Step Code for industry and staff and aligns with the Province's Step Code Implementation Guide. In

addition the approach will generally bring an aligned approach to the step code across the North Shore from July 1, 2018.

It is worth noting that the Province has undertaken significant industry consultation and readiness surveys so that industry is ready as local governments adopt and bring the Step Code online.

BC Energy Step Code Costing Study

The Province commissioned a costing study report to assess the incremental costs of implementing the Energy Step Code. The research showed that meeting the requirements of the lower steps of the Step Code involve only very modest cost premiums.

More specifically, for Part 3 buildings, the report indicates through modelling, that builders and designers can achieve Step 4 (the highest step for Part 3 buildings) for less than a 3% capital cost premium, and achieve Step 3 for less than 2.4%.

Furthermore, for Part 9 buildings the report found that builders can achieve the majority of steps (not just lower steps) for less than 2% capital cost premium above the cost of conventional construction.

The Province's costing study also advises that as industry gains experience with energy efficient construction practices and energy efficient products become more readily available that the cost premiums will decrease and that the most cost-effective time to invest in a building's energy efficiency is at the conceptual design stage.

Implications of the Energy Step Code for Existing Policies

As the *Building Act* will not allow municipalities to regulate building energy efficiency other than in accordance with the Step Code the District's current Green Building Policy will not be able to be enforced. Furthermore, the modest density bonus provisions in the zoning bylaw will no longer have any effect after Dec 15, 2017, and should be removed as a consequential amendment to the Zoning Bylaw.

Given that the Step Code will be the vehicle to manage building energy efficiency it may also be appropriate to reconsider the policies related to District Energy in the Official Community Plan.

Impacted Bylaws and Policies

The following table provides a list of bylaws and policies that are impacted by the *Building Act* and its limitations on local building requirements.

Bylaw or Policy	Current Implementation	Comment
Policy 8.3320.7 Green Building Policy – Private Sector Developments	Green Building rating system and energy performance requirement negotiated through rezoning and secured by s219 covenant.	Transition to Step Code will supersede Green Building Policy. This report recommends rescinding of this policy as building energy performance will be regulated by the Step Code.
Density Bonus general provisions (zoning bylaw)	'As a right' for zoned properties.	Transition to Step Code will supersede requirement for these provisions. A corresponding zoning bylaw amendment is proposed to delete these provisions.
Accessible Design Policy (Policy)	Negotiated through rezoning and implemented with Development Covenant.	As a 'time-limited unrestricted matter' it has been incorporated as a requirement into new Construction Bylaw.
Sound Transmission into Buildings (Bylaw)	Generally created as a site specific zoning regulation through rezoning.	As an 'unrestricted matter' it is included as a general provision in the new Construction bylaw.
Fire Sprinklers (Bylaw)	Current Building Regulation bylaw.	As a 'time-limited unrestricted matter' the current provisions have been ported over to the new Construction bylaw.
Radio repeaters	Negotiated through rezoning.	As an 'unrestricted matter' a new Radio Amplification bylaw is proposed to assist with emergency communication and compliance will be a requirement in the new Construction Bylaw.
Stacked rock walls (bylaw)	Currently prohibited in Building Regulation bylaw	No longer permitted to be regulated under the <i>Building Act</i> and has not been included in the new Construction Bylaw. If appropriate s219 covenant could be negotiated through rezoning process or the District may wish to apply to the Province for a Local Variation.

Environmental Considerations

The proposed Construction Bylaw includes a number of important policy changes that will allow DNV staff to manage the impacts of construction in a proactive manner. Currently, the bylaws that address environmental protection are mainly reactive in their implementation. After damage or impact occurs staff take enforcement action. Building, Legal and Environment staff have collaborated on the proposed Construction Bylaw resulting in new regulations that will allow staff to reduce the likelihood of environmental impacts. Trained staff will now be able to identify construction activity with potential for fouling of our streams, storm sewers and roadways and require immediate implementation of better management practices. Failure to mitigate or reduce the potential for environmental damage will be subject to penalties under the new bylaw.

The proposed bylaw will also consider and integrate important procedural steps for projects that involve both Building as well as Development Permits. This is another important step to ensure that recommendations developed by qualified professionals (relating to site safety) during the Development Permit process are carried through to the Building Permit process.

The process for securing environmental restoration, planting and other enhancement work, as a condition of permits, will also be strengthened with the new bylaw.

Industry Consultation:

Noting that the Province has undertaken significant industry consultation on the *Building Act* and the Energy Step Code additional consultation on the District's approach to implementation was undertaken. Correspondence was sent to a wide range of District clients including individual developers, builders, architects and designers working across both single family and complex development types outlining the District's approach to the new Construction Bylaw and the Step Code and seeking comment in return. The Urban Development Institute (UDI) and Greater Vancouver Homebuilders Association (GVHBA) were also advised of the District's proposed approach.

The feedback from industry was generally neutral with no objections to the new Construction Bylaw or the District's approach to Step Code implementation. The one matter that raised some level of interest was how the District would transition from its current Green Building Policy to the Step Code and how applications in process would be treated. As a result of this consultation staff are recommending a simplified approach to the Step Code where the District transitions to the Step Code on July 1, 2018 (rather than having an incremental approach starting on Dec 15, 2017).

With this approach rezoning projects currently in progress would follow the District's Green Building Policy until July 1, 2018, at which time the Step Code would apply. The expectation is that any project that submits for Building Permit after July 1, 2018, would comply with the applicable Step in the Step Code depending on building type and occupancy classification.

Concurrence:

Staff have worked closely with Legal, Environment and Fire Department in the drafting of the Construction Bylaw. In addition staff have worked with the City of North Vancouver and

District of West Vancouver to target an approach to the Step Code that is generally consistent across the North Shore.

Liability/Risk:

Adoption of the new Construction Bylaw will reduce the District's liability exposure.

Conclusion:

The Building Regulation Bylaw requires updating and revision to align with current best practices, new processes and the new Provincial *Building Act*. It is proposed to consolidate related bylaws into a new Construction Bylaw.

Respectfully submitted,



Brett Dwyer, Chief Building Official
Manager Development Services

Attachments

Attachment 1 – Construction Bylaw 8271, 2017

Attachment 2 – Radio Amplification Bylaw 8272, 2017

Attachment 3 - Bylaw Notice Enforcement Bylaw 7458, 2004, Amendment Bylaw 8274, 2017 (Amendment 32)

Attachment 4– District of North Vancouver Rezoning Bylaw 1365 (Bylaw 8273)

Attachment 5 - Policy 8.3320.7 Green Building Policy – Private Sector Developments

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



THE CORPORATION OF THE DISTRICT NORTH VANCOUVER CONSTRUCTION BYLAW 827, 2017

The Corporation of the District of North Vancouver

Bylaw 8271

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The Corporation of the District of North Vancouver

Bylaw 8271

A bylaw for the Administration and Enforcement of the *Building Code*

WHEREAS the Province of British Columbia has enacted the British Columbia *Building Code* to govern standards in respect of the *construction*, alteration, repair and demolition of *buildings* and *structures* in municipalities and regional districts in the Province;

AND WHEREAS the Province by enactment has authorized the Council to regulate the *construction*, alteration, repair or demolition of *buildings* and *structures* by bylaw for the general public interest and the health, safety and protection of persons, property and the environment;

NOW THEREFORE the Council of the District of North Vancouver, in open meeting assembled, enacts as follows:

PART 1 INTERPRETATION

Citation

1.1 This bylaw may be cited as “**CONSTRUCTION BYLAW 8271, 2017**”.

Definitions

1.2 In the absence of specific definition in section 1.4, the words used in this bylaw have the meaning, if any, given to them by definition in the *Community Charter*, S.B.C. 2003 c. 26, as amended or replaced.

1.3 In this bylaw the following words and terms have the meanings set out in Section 1.4.1.2 of the *Building Code* as of the date of the adoption of this bylaw: *assembly, building, building area, building height, business and personal services occupancy, care occupancy, constructor, coordinating registered professional, detention occupancy, excavation, field review, firewall, high hazard industrial occupancy, industrial occupancy, low hazard industrial occupancy, major occupancy, medium hazard industrial occupancy, mercantile occupancy, occupancy, private sewage disposal system, registered professional, residential occupancy and unsafe condition*.

1.4 In this bylaw:

addition means any *alteration* to a *building* which will increase the total aggregate floor area or the *building height*;

alteration means any change, repair or modification of the *construction* or arrangement of any *building* or *structure* or to an *occupancy* regulated by this bylaw;

Approving Officer means the person appointed by the *Council* as the Approving Officer under the *Land Title Act* and includes his or her deputy;

architect means a person who is a member in good standing of The Architectural Institute of British Columbia pursuant to the *Architects Act*, RSBC 1996, c. 17, as amended or replaced from time to time;

assessed value means the value of the property determined by the BC Assessment Authority pursuant to the *Assessment Act*, RSBC 1996, c. 20, as amended or replaced from time to time;

B.C. Natural Gas and Propane Code has the meaning given to it in the *Gas Safety Regulation*;

Building Code means the current edition of the *British Columbia Building Code* as adopted by the Minister responsible under provincial legislation, as amended or replaced from time to time;

building official means the *Chief Building Official* and the building inspectors, plan checkers, plumbing inspectors, mechanical inspectors and electrical inspectors designated or appointed by the *District*;

building permit means a *permit* issued under Parts 5, 8, 9 or 10 of this bylaw;

building review means an audit check by a *building official* of representative elements of a *building* or *structure* prior to or under *construction* for the purposes of the *health and safety aspect of the work*;

bylaw enforcement officer means the person(s) appointed by the *District* whose duties include enforcing and carrying out the provisions of this bylaw;

Chief Building Official means the Manager Development Services or a person designated in writing by the Manager Development Services to act in his/her place and is the "building inspector" under the *Community Charter*;

Community Charter means the *Community Charter*, SBC 2003, c. 26, as amended or replaced from time to time;

complex building means:

- (a) all *buildings* used for *major occupancies* classified as:
 - (i) *assembly occupancies*,
 - (ii) *care or detention occupancies*, or
 - (iii) *high hazard industrial occupancies*, or
- (b) all *buildings* exceeding 600 square meters in *building area* or exceeding three storeys in *building height* used for *major occupancies* classified as:

- (i) *residential occupancies,*
- (ii) *business and personal services occupancies,*
- (iii) *mercantile occupancies, or*
- (iv) *medium and low hazard industrial occupancies;*

construct or construction includes build, erect, install, repair, alter, add, enlarge, move, locate, relocate, reconstruct, demolish, remove, excavate or shore;

Council means the elected council of the *District*;

demolition permit means a *permit* authorizing the demolition of a *building* subject to the terms and conditions specified in sections 4.39 of this bylaw;

designer means the *person* responsible for design and, unless the requirement is waived under an enforcement policy of the Council, if required under this bylaw or the *Building Code* must be an *architect* or *engineer*;

development permit means a permit for development in an area designated as a development permit area by the *District's* Official Community Plan Bylaw 7900;

development permit area means an area designated as a development permit area by the *District's* Official Community Plan Bylaw 7900;

District means the Corporation of the District of North Vancouver;

Do Not Occupy Notice means a notice posted by a *building official* pursuant to section 4.69;

Electrical Code has the meaning prescribed in the *Safety Standards Act* and *Electrical Safety Regulation*;

electrical permit means a *permit* issued under Part 13 of this bylaw;

electrical work has the meaning prescribed in the *Electrical Safety Regulation*;

Electrical Safety Regulation means the *Electrical Safety Regulation* (BC Reg. 104/2004) under the *Safety Standards Act*, as amended or replaced from time to time;

Energy Step Code means the British Columbia Energy Step Code established by the *Building Code* and as amended or replaced from time to time;

engineer means a person who is a professional engineer and/or geoscientist and member in good standing of The Association of Professional Engineers and Geoscientists of the Province of British Columbia pursuant to the *Engineers and Geoscientists Act*, RSBC 1996, c. 116, as amended or replaced from time to time;

Environmental Protection and Preservation Bylaw means the District's Environmental Protection and Preservation Bylaw No. 6515;

environmental protection officer means the person designated or appointed to that position by the *District* and includes a person designated in writing by the environmental protection officer to act in his/her place;

field safety representative has the meaning prescribed in the *Safety Standards General Regulation* (BC Reg. 105/2004) under the *Safety Standards Act*, as amended or replaced from time to time;

Gas Safety Regulation means the *Gas Safety Regulation* (BC Reg. 103/2004) under the *Safety Standards Act*, as amended or replaced from time to time;

gas work means regulated work in respect of gas equipment or a gas system for which the *District* is entitled to issue a *permit* under this bylaw and under the *Gas Safety Regulation*;

health and safety aspects of the work means design and construction regulated by Parts 3, 4, 7, 8, 9 and 10, of the building code;

heating system includes forced air duct and hydronic piping distribution systems;

Homeowner Protection Act means the *Homeowner Protection Act*, SBC 1998, c. 31, as amended or replaced from time to time;

licensed gas contractor has the meaning prescribed in the *Gas Safety Regulation*;

Local Government Act means the *Local Government Act*, RSC 2015, c. 1, as amended or replaced from time to time;

Master Requirements List means the *District's* list of requirements for the information, forms, and plans to be included in an application for a *permit* provided by the Building Department of the *District* and/or available on the *District's* website;

mechanical permit means a *permit* issued under Part 12 of this bylaw and includes an installation permit under the *Gas Safety Regulation*;

mechanical work includes work on *plumbing* and *heating systems* and any other work for which a *mechanical permit* is required under this bylaw and includes *gas work*, but does not include any mechanical work that is not specifically regulated under the *Building Code*;

Municipal Solicitor means the person designated or appointed to that position by the *District* and any *person* named by the *Council* to act in place of the *Municipal Solicitor*;

occupancy permit means an occupancy permit issued by the *District* under section 5.29 to 5.30 of this bylaw;

owner means the person who is the *owner* as defined in the *Building Code* or an agent of that person;

permit means a permit under this bylaw, including a *building permit*, *electrical permit*, *mechanical permit* or *occupancy permit*;

plumbing includes all or any part of a drainage system, venting system, sanitary sewage system or water system, and includes fire sprinklers;

pool means a *structure* or depression used or intended to be used for swimming, bathing, wading or diving which is designed to contain water and has a depth exceeding 0.5 m;

professional design means the plans and supporting documents bearing the date, seal or stamp, and signature of a *registered professional*;

project means any construction operation for which a *permit* is required under this bylaw;

qualified person has the meaning prescribed in section 20.112(1) of the *Occupation Health and Safety Regulation*, BC Reg 296/97, as amended or replaced from time to time;

registered professional means an *architect* or an *engineer*;

retaining wall means a wall, or a series of walls, constructed for the purpose of supporting or confining earth, water or other material and restraining it from moving, which:

- (a) exceeds 1.22 m (4 ft) in height above the lesser of natural or finished grade; or
- (b) in the case of a series of walls, if any of the walls extend above a line commencing 1.22 metres above the lesser of natural or finished grade at the base of any of the walls and projected at an angle of one linear unit vertically to one unit horizontally;

Safety Standards Act means the *Safety Standards Act*, SBC 2003, c. 39, as amended or replaced from time to time;

security deposit means the amount to be deposited with District in accordance with section 5.7;

Servicing Agreement has the meaning prescribed in the Development Servicing Bylaw;

simple building means a *building* of three storeys or less in *building height*, having a *building area* not exceeding 600 square meters and used for *major occupancies* classified as:

- (a) *residential occupancies*;
- (b) *business and personal services occupancies*;
- (c) *mercantile occupancies*; or
- (d) *medium and low hazard industrial occupancies*;

Stop Work Order Notice means the notice in a form prescribed by the *Chief Building Official* directing that work be immediately suspended pursuant to section 4.48 or 4.50;

structure means any construction or portion thereof of any kind, whether fixed to, supported by, or sunk into land or water;

temporary building includes a sales office, construction office or a *structure* in which tools are stored during construction of a *building* or other *structure*;

Tree Protection Bylaw means the District's Tree Protection Bylaw No. 7671;

value of the work means the amount calculated as follows:

- (a) for construction of a *building* containing a *residential occupancy* that is served by only one stove, or two stoves if permitted as an auxiliary and secondary *residential occupancy*, the greater of:
 - (i) the declared value of the work, or
 - (ii) the value calculated using Schedule A; or
- (b) for all other construction, the greater of:
 - (i) the declared value of the work, or
 - (ii) the value calculated using a method stipulated in the "Marshall Valuation Service" or "RS Means".

Zoning Bylaw means the *District's* Zoning Bylaw No. 3210.

Administrative Directions

- 1.5 Words defining the authority of a *building official* are to be construed as internal administrative directions and not as creating a duty on a *building official*.

Abbreviations

- 1.6 The abbreviations of words and phrases in this bylaw have the meanings assigned to them by the *Building Code*.

PART 2 PURPOSE OF BYLAW

- 2.1 This bylaw is enacted for the purpose of regulating construction within the District of North Vancouver in the general public interest. The activities undertaken by or on behalf of the *District* under this bylaw are for the sole purpose of providing a limited and interim spot checking function for reasons of the health, safety and protection of persons, property and the environment. This bylaw and the acceptance or review of plans, drawings, specifications and supporting documents, *building reviews* or inspections made by or on behalf of the *District* do not:
- 2.1.1 constitute a representation, warranty, assurance or statement that any work undertaken pursuant to *permits* issued by the *District*:

- (a) is free from latent, or any, defects;
 - (b) complies with the *Building Code*, this bylaw or any other applicable standards or enactments; or
 - (c) meets any standards in respect of design, materials or workmanship;
- 2.1.2 in any way relieve the *owner* or his or her representatives from full and sole responsibility to perform the work in strict accordance with the *Building Code*, the *Gas Safety Regulation*, the *Electrical Safety Regulation*, this bylaw, other *District* bylaws and any other applicable enactments respecting safety;
- 2.1.3 protect *owners*, *owner/builders* or *constructors* from economic loss;
- and no person may rely on this bylaw or any of those acts as establishing compliance with the *Building Code*, this bylaw or any standard of construction.
- 2.2 This bylaw is to be interpreted in accordance with the purposes set out in section 2.1, notwithstanding any other provision in this bylaw.

PART 3 APPLICATION

Application

- 3.1 Notwithstanding the issuance of a *permit* under this bylaw, an *owner* must comply with all applicable enactments, including the *Zoning Bylaw*, the *Environmental Protection and Preservation Bylaw*, the *Tree Protection Bylaw* and any applicable *development permit area* requirements.
- 3.2 This bylaw applies to:
- 3.2.1 the design, *construction* and *occupancy* of new *buildings* and *structures*;
 - 3.2.2 the alteration, reconstruction, demolition, removal, relocation and *occupancy* of existing *buildings* and *structures*; and
 - 3.2.3 existing *buildings* and *structures* in the circumstances set out in sections 3.4 to 3.7.
- 3.3 This bylaw does not apply to:
- 3.3.1 *buildings* and *structures* exempted by Part I of the *Building Code* except as expressly provided herein;
 - 3.3.2 a fence permitted to be *constructed* under the *Zoning Bylaw*, except as provided for in Part 8 - Pools;
 - 3.3.3 paving;
 - 3.3.4 a retaining *structure* that is not a *retaining wall*;

- 3.3.5 an accessory *building* with a floor area less than 10 square metres or a trellis, arbour or other such landscape feature on a parcel zoned for single family residential uses under the *Zoning Bylaw*;
- 3.3.6 non-structural repair and maintenance of lawfully-conforming *structures* on a parcel zoned for single-family residential use under the *Zoning Bylaw*;
- 3.3.7 the clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, or the replacement of tubs, showers, toilets, lavatories or sinks if the work does not involve or require the rearrangement of valves, pipes or fixtures or hot water tanks.
- 3.3.8 electrical work to which the *Electrical Safety Regulation* does not apply;
- 3.3.9 *gas work* to which the *Gas Safety Regulation* does not apply.

Limited Application to Existing *Buildings*

- 3.4 If an application is made for a *building permit* to re-construct an existing *building* or a *structure* that is damaged or destroyed by fire, decay, storm, earthquake or otherwise to the extent of 150 percent or more of its *assessed value* of the improvements, as determined by the *building official*, then the entire *building* or *structure*, including those portions that are not damaged or destroyed, must comply with this bylaw and all other applicable District bylaws as if the entire *building* or *structure* were a new *building* or *structure*.
- 3.5 If an application is made for a *building permit* for an *addition* or *alteration* to an existing *building*, other than a single family residential *building*, the balance of the *building* must be upgraded to a level consistent with Schedule B.
- 3.6 If an *alteration* is made to an existing *building*:
 - 3.6.1 the *alteration* must comply with this bylaw and the *building code*; and
 - 3.6.2 the *building* must be upgraded to a level consistent with Schedule B.
- 3.7 If an *alteration* is limited to a suite intended for a Group A Division 2, D, E or F2 *occupancy* under the *Building Code* and if the *occupancy* load for that suite exceeds 60 persons, the suite area and its means of egress must be upgraded to a level consistent with Schedule B and:
 - 3.7.1 materials approved for one-hour fire resistive *construction* must be installed on the suite side of the suite separation, or
 - 3.7.2 the *building* must either have been *constructed* or upgraded to a level consistent with Schedule B within the last 20 years.

PART 4

ADMINISTRATION AND POWERS, ROLES AND RESPONSIBILITIES

Local Safety Manager

- 4.1 The *Chief Building Official* is the local safety manager under the *Safety Standards Act* and associated regulations and has all of the powers of a local safety manager under said enactments.

Powers

- 4.2 The *Chief Building Official* may:
- 4.2.1 administer this bylaw;
 - 4.2.2 establish the form and content of application forms and other documents, plans or forms to be submitted as part of an application for a *permit*;
 - 4.2.3 establish the form and content of the Master Requirements List;
 - 4.2.4 establish the terms and conditions of obtaining and continuing to hold a *permit* pursuant to section 15 of the *Community Charter*;
 - 4.2.5 issue and revoke *permits* under this bylaw;
 - 4.2.6 withhold a *building permit* that conflicts with bylaws in preparation in accordance with section 463 of the *Local Government Act*;
 - 4.2.7 require an applicant for a *building permit* to provide certification by a qualified professional that the plans submitted with the *permit* application, or specified aspects of those plans, comply with the *Building Code* and other applicable enactments respecting safety;
 - 4.2.8 require an applicant for a *building permit* to establish whether a method or type of *construction* or material used in *construction* of a *building* or *structure* complies with the requirements of this bylaw and the *Building Code*;
 - 4.2.9 direct that tests of materials, equipment, devices, *construction* methods, structural assemblies or foundations be carried out, or that sufficient evidence or proof be submitted by the *owner*, at the *owner's* expense, where such evidence or proof is necessary to determine whether the material, equipment, device, *construction* or foundation condition complies with this bylaw and the *Building Code*; and
 - 4.2.10 require an applicant for a *building permit* in relation to a *building* that was *constructed* prior to 1990 to provide a hazardous materials report and confirmation prepared by a *qualified person* in accordance with section 20.112 of the *Occupation Health and Safety Regulation*, BC Reg 296/97, as amended or replaced from time to time.
 - 4.2.11 waive, in whole or in part, the requirements for a site plan, if the *building permit* is in relation to the repair or *alteration* of an existing *building* or *structure*;

- 4.2.12 waive the requirement for a *building review* under section 5.24 of this bylaw based on a risk-based analysis and evaluation of the performance history of the *constructor* carrying out the relevant work and the risk associated with the specific *building review* and provided that *building reviews* in respect of foundation and footing forms, framing or final *building review* may not be waived;
- 4.2.13 designate and alter the numbering of *buildings*.
- 4.3 The *Chief Building Official* may order the correction of any work that is being or has been done in contravention of this bylaw or any other bylaw of the *District* and, without limiting the generality of the foregoing, the *Chief Building Official* may order:
- 4.3.1 a *person* who contravenes any provision of this bylaw to comply with the provision and specify the time within which the work must be completed;
- 4.3.2 an *owner* to have work inspected by a *building official* prior to covering;
- 4.3.3 an *owner* to uncover any work that has been covered without *building review* contrary to this bylaw or an order issued by the *Chief Building Official*;
- 4.3.4 a stop work order under sections 4.63 and 4.64;
- 4.3.5 the removal of any *building, structure* or part of them *constructed* in contravention of a provision of this bylaw;
- 4.3.6 the cessation of any *occupancy* in contravention of this bylaw;
- 4.3.7 an *owner* to correct any unsafe conditions;
- 4.3.8 an *owner* to correct any work that contravenes this bylaw, the *Building Code*, or any other *District* bylaws; and
- 4.3.9 the removal of any unauthorized encroachment on *District* property.
- 4.4 Every person served with an order under section 4.3 must comply with the order within the time stated in the order.

Building Official

- 4.5 *A building official:*
- 4.5.1 may enter any land, *building, structure* or premises in accordance with the provisions of section 16 of the *Community Charter* to ascertain whether the terms of this bylaw are being observed;
- 4.5.2 may waive the requirement for a *building review* under section 5.24 of this bylaw based on a risk-based analysis and evaluation of the performance history of the person carrying out the relevant work and provided that *building reviews* in respect of foundation and footing forms, framing or final *building review* may not be waived;

Permit Required

- 4.6 A *permit* is required for any work regulated under this bylaw.
- 4.7 Without limiting section 4.6, , a person must not do any of the following unless a *building official* has issued a valid and subsisting *permit* for the work or unless the work is specifically excluded from the ambit of this bylaw under a provision of this bylaw:
- 4.7.1 *construct*, repair or alter a *building* or *structure*, including a *temporary building* or *structure*;
 - 4.7.2 change the use, *occupancy*, or both, of a *building* or *structure* or part of a *building* or *structure*;
 - 4.7.3 install or modify a commercial cooking facility or ventilation system used in a process producing grease laden vapours;
 - 4.7.4 install or modify a fire alarm system or fire sprinkler system;
 - 4.7.5 move a *building* or *structure*;
 - 4.7.6 demolish a *building* or *structure*;
 - 4.7.7 occupy a new *building* or *structure*;
 - 4.7.8 install, *construct*, repair or alter a masonry fireplace or a wood burning appliance or chimney, unless the works are encompassed by another valid *building permit*;
 - 4.7.9 install, alter or repair plumbing or heating systems or performing other *mechanical work*; or
 - 4.7.10 perform *electrical work*.
- 4.8 Applications for a *permit* must be submitted in the form specified by the *Chief Building Official* and be submitted together with the Building Permit Fee specified in the Fees and Charges Bylaw 6481 in accordance with section 17.1 of this bylaw.
- 4.9 The Building Permit Fee will increase as prescribed in the Fees and Charges Bylaw 6481 if, contrary to this bylaw, *construction* is commenced before the *Chief Building Official* has issued a *permit*.
- 4.10 A person must not submit false or misleading information in relation to a *permit*, an application for a *permit* or *construction* undertaken under this bylaw.
- 4.11 A person must not erase, alter or modify plans and supporting documents after the same have been reviewed by a *building official* and a person must not erase, alter or modify plans and supporting documents which have been filed for reference with a *building official* after the *permit* has been issued.

Requirements of Permit

- 4.12 Every *owner* must comply with the requirements and conditions of this bylaw and any *permit* issued under this bylaw.

Lapse of Application

- 4.13 A *permit* application lapses 180 days from the date on which a complete application is received, unless the *permit* has not been issued because of delays caused solely by the *District*.

Expiration of Permit

- 4.14 A *permit* expires and the rights of the *owner* under the *permit* terminate if:
- 4.14.1 the work authorized by the *permit* is not commenced within 180 days from the date of issuance of the *permit*; or
 - 4.14.2 work is discontinued for a period of 180 days or more; or
 - 4.14.3 the work is not completed within two years of the date of issuance of the *permit*.

Permit Extension

- 4.15 A *building official* may extend the period of time set out under section 4.14 by up to six months if:
- 4.15.1 the work authorized by the *permit* has not been commenced or has been delayed or discontinued due to adverse weather, strikes, material or labour shortages, other similar hardship beyond the *owner's* control or if the size and complexity of the *construction warrants*;
 - 4.15.2 an application for the extension is made within 30 days of the date of *permit* expiration; and
 - 4.15.3 the *owner* has paid the permit extension fee prescribed in the Fees and Charges Bylaw 6481.

Refusal to Issue Permit

- 4.16 A *building official* may refuse to issue a *permit* where, in his or her opinion, the proposed work contravenes the *Building Code*, this bylaw or the provisions of any other bylaw of the *District*.

Permit Revocation

- 4.17 The *Chief Building Official* may revoke a *permit* if:
- 4.17.1 there is a violation of:

- (a) a condition under which the *permit* was issued;
 - (b) a requirement of the *Building Code*, *Electrical Code*, *BC Natural Gas and Propane Code*, or the *Safety Standards Act* and associated regulations;
 - (c) a requirement or prohibition under this bylaw or another bylaw of the *District*;
- 4.17.2 the *permit* was issued in error or based on false information;
- 4.17.3 the applicant has failed to obtain any permit required under another *District* bylaw;
or
- 4.17.4 a circumstance arises that creates a risk that was not known or did not exist at the time the *permit* was issued.

Permit Cancellation

- 4.18 An *owner*, or his or her *agent*, may cancel a *permit* application by delivering written notification of cancellation to the *Chief Building Official*.
- 4.19 If the *owner*, or his or her *agent*, submits changes to an application after a *permit* has been issued and the changes, in the opinion of the *Chief Building Official*, substantially alter the scope of the work, design or intent of the application in respect of which the *permit* was issued, the *Chief Building Official* may cancel the *permit*.

Permit Transfers

- 4.20 A *permit* or an application for a *permit* may not be transferred or assigned until the *owner* has notified the *Chief Building Official* in writing, the *owner* has paid the permit transfer fee prescribed in the Fees and Charges Bylaw 6481, and the *Chief Building Official* has authorized the transfer or assignment in writing. The transfer or assignment of a *permit* is not an extension of a *permit*.
- 4.21 Any *security* being held by the District in respect of a *permit* that has been transferred must either be returned to the person or entity that paid the *security deposit* or assigned to the transferee by way of an assignment agreement in a form satisfactory to the *Chief Building Official*.

Permit Correction

- 4.22 The review of plans and supporting documents and issuance of a *permit* do not prevent the *Chief Building Official* from subsequently requiring the correction of errors in the said plans and supporting documents or from prohibiting work from being carried on pursuant to the *permit* or from prohibiting occupancy of a *building* where the plans, the supporting documents, the work or the *occupancy* are in violation of this or another bylaw.

Conformity to *Building Code*

- 4.23 The *Chief Building Official* may require the *owner* to establish whether a method or type of *construction* or material used in the *construction* of a *building* or *structure* complies with the requirements and provisions of this bylaw and the *Building Code*.

Alternate Solutions

- 4.24 Alternate solutions will be considered by the *building official* in accordance with the provisions of the *Building Code*.

Tests

- 4.25 The *Chief Building Official* may direct that tests of materials, equipment, devices, *construction* methods, structural assemblies or *foundations* be made and reports, documentation and evidence be provided, all at the expense of the *owner*, to determine whether the material, equipment, device, *construction* or *foundation* condition complies with this bylaw and the *Building Code*.

OWNER'S AND CONSTRUCTOR'S RESPONSIBILITIES

Owner's Responsibility

- 4.26 It is the full and sole responsibility of the *owner* (and where the *owner* is acting through a representative, the *owner's* representative) to carry out the work in respect of which the *permit* was issued in compliance with the *Building Code*, the *Electrical Code*, the *B.C. Natural Gas and Propane Code*, this bylaw and all other applicable enactments respecting safety.

Owner's Undertakings

- 4.27 Despite the other provisions of this bylaw, the *Chief Building Official* may require as a condition of the issuance of a *permit* that the *owner* execute and submit to the *District* the *Owners' Responsibilities Form* in the form specified by the *Chief Building Official*.
- 4.28 Where the *Chief Building Official* determines that any work or excavation may directly, or indirectly, affect private property adjacent to the excavation site, the *owner* must provide:
- 4.28.1 an excavation and shoring plan, signed and sealed by a qualified professional; and/or
- 4.28.2 a report by a certified arborist,
- specifying measures to be taken to protect adjoining land, structures, walks, walls, services and trees.
- 4.29 Every *owner* to whom a *permit* is issued must:
- 4.29.1 not interfere with or obstruct the entry of a *building official* or other authorized official of the *District* onto into any land, *building*, *structure* or premises at any

reasonable time in order to administer and enforce this bylaw;

- 4.29.2 ensure that the *permit*, the designs, plans and specifications on which the issuance of the *permit* was based, all municipal inspection certificates, and all professional *field review* records are available at the site of the work with respect to which the *permit* was issued for the purpose of inspection by the *building official*;
- 4.29.3 ensure that the *permit* is posted conspicuously on the site of the work authorized by the *permit* during the entire execution of said work;
- 4.29.4 ensure that all work for which a *permit* is required is carried out in compliance with the *permit* and any supporting documents and with the *Building Code*, the *Electrical Code*, the *B.C. Natural Gas and Propane Code*, this bylaw, any other applicable bylaw of the *District*, the *Homeowner Protection Act*, *Safety Standards Act* and *associated regulations* and any other applicable enactments respecting safety;
- 4.29.5 not do any work that is at variance with the accepted designs, plans and specifications of a *building* or *structure* or of any other work for which a *permit* has been issued, unless that variance has been accepted in writing by a *building official*.
- 4.29.6 for any *building permit* that involves soil disturbance, excavation, or concrete works, ensure that sediment and erosion are managed on the site such that no material will enter any road, any neighbouring property or the *District* sewer system;
- 4.29.7 prior to commencing any *construction* under the *permit*, ensure that all catch basins capable of receiving surface run-off from the *construction* site are fitted with a catch basin specific design of sediment trap, which sediment traps must be maintained in accordance with the supplied manufacturer's specifications;
- 4.29.8 obtain all permits required under other *District* bylaws in relation to the proposed work;
- 4.29.9 pay the cost of repairs of any damage to public property or *District* works or services that occurs in the course of the work authorized by the *permit*; and
- 4.29.10 where required by the *Chief Building Official*, post a sign on the property to which the *permit* relates for the full duration of *construction*:
- (a) the civic address of the property in a location that is visible from all adjoining streets;
 - (b) the contact information for the *owner* or the *constructor*, including contact information that is monitored 24 hours per day for issues arising after hours or emergencies; and
 - (c) the contact information for the *District*.
- 4.30 The sign required under section 4.29.10 must conform to the template provided by the *Chief Building Official* and meet the following requirements:

- (a) maximum height from grade of 3.0 metres;
- (b) maximum area of 3.0 square metres for Part 3 buildings and a maximum area of 1.5 square metres for single or two family dwellings;
- (c) script that is at least 5.00 cm high and is in a colour that contrasts with the background of the sign; and
- (d) set out the hours permitted for *construction* under the Noise Regulation Bylaw 7188 and any exemptions to the *construction* hours which may have been granted.

Notice

- 4.31 Every *owner* must give notice in writing to the *Chief Building Official* of any change in or termination of engagement of a *registered professional* during the course of the *construction* before the change or termination occurs.
- 4.32 If an *owner* terminates the engagement of a *registered professional*, the *owner* must suspend the work with respect to which the *registered professional* was engaged until the *owner* has engaged a new *registered professional* and has delivered to the *Chief Building Official* letters of assurance from the new *registered professional*.
- 4.33 It is the *owner's* responsibility to give notice in writing to the *Chief Building Official* immediately upon any change in ownership or change in the address of the *owner* which occurs prior to the issuance of an *occupancy permit*.
- 4.34 Every *owner* must give such other notice to the *Chief Building Official* as may be required by the *Chief Building Official* or by a provision of this bylaw.

Uncovering Work

- 4.35 When required by the *Chief Building Official*, every *owner* must uncover and replace at the *owner's* own expense any work that has been covered without inspection contrary to this bylaw.

Damage to Public Property

- 4.36 Every *owner* to whom a *permit* is issued must not cause damage to *District* property or municipal works during the work authorized by the *permit* and, in the event that such damage is caused, the owner is responsible for the cost to repair such damage.
- 4.37 If the *Chief Building Official* determines that *District* property or municipal works or services have been damaged, obstructed or fouled by debris, material or dirt in the course of work authorized by a *permit*, the *Chief Building Official* may deliver written notice to the *permit* holder to repair or clean up and if the required work is not completed within the time specified in the notice, the *District* may, but is not obligated to, carry out such work.

- 4.38 Every *owner* must pay to the *District*, within 30 days of receiving an invoice for same from the *District*, the cost of repairs undertaken by the *District* pursuant to section 4.37, failing which the *District* may, without notice, deduct the invoiced amount from the *owner's* security deposit.

Demolition

- 4.39 Every *owner* applying for a *demolition permit* must:
- 4.39.1 provide a vacancy date;
 - 4.39.2 provide written authorization from all *owners* to demolish;
 - 4.39.3 deposit with the *District* a demolition security deposit in the amount specified in section 5.7.1 of this bylaw as security for the repair, replacement, and clean up of any water and sewer works, roadways, curbs, gutters, sidewalks, boulevards and other *District* property damaged in the course of the work authorized by the *demolition permit* and for the clean-up of the land subject to the *permit* and/or completion of the works required under sections 4.39.4 [capping fees] and 4.42 [demolition clean up];
 - 4.39.4 pay the capping and inspection chamber installation fees prescribed in the Waterworks Bylaw and the Sewer Bylaw; and
 - 4.39.5 all municipal services must be capped and terminated at the property line in a *District* standard inspection chamber and valve arrangement.
- 4.40 The *Chief Building Official* may require as a condition of issuing a *demolition permit* that the *owner* provide a report from a commercial pest control service that a *building* or *structure* which is proposed to be demolished is free of rodent infestations and/or noxious weeds or pests.
- 4.41 Every *owner* must ensure that prior to carrying out demolition, all erosion and sediment controls as required pursuant to the Development Servicing Bylaw 8145 and the Environmental Protection and Preservation Bylaw 6515, as amended or replaced, have been installed.
- 4.42 Every *owner* must ensure that immediately upon completion of demolition:
- 4.42.1 all debris and fill is cleared from the site;
 - 4.42.2 all gypsum board and other recyclable materials from the *building* is separated from other debris and disposed of in accordance with applicable provincial regulations;
 - 4.42.3 the site is back-filled and all holes filled;
 - 4.42.4 the site is made level based on the grades indicated on the topographical survey required pursuant to section 5.6;
 - 4.42.5 the site is made stable from water or rainfall induced erosion; and

- 4.42.6 the site left in a neat and tidy condition.
- 4.43 The *Chief Building Official* may waive and/or relax the time for compliance with any of the conditions set out in section 4.42 provided that a *building permit to construct* a new building has been issued for the same property.
- 4.44 If the *building official* determines that the terms and conditions upon which a *demolition permit* is issued are not being complied with, the *building official* may deliver written notice requiring compliance within 24 hours and if the *building official* determines that non-compliance continues after 24 hour notice period, then the *District* may, but is not obligated to, enter on to the property to which the demolition permit relates and do or cause to be done through its contractors all such things as may be required to fulfil said conditions, including without limitation, completion of the demolition and securing the site, and for such purpose may without notice or limitation deduct from the demolition *security deposit* all costs and expenses incurred and payments and expenditures made by the *District*.
- 4.45 The *District* will return to the payee the demolition *security deposit* less all amounts deducted therefrom in accordance with section 4.39.3, upon completion of the demolition work contemplated in the *demolition permit* and upon the *building official* being satisfied that all damage caused by the applicant has been repaired and all conditions upon which the *demolition permit* was issued have been complied with and satisfied.

Obligations of Constructor

- 4.46 Every *constructor* must ensure that all requirements of the *Building Code*, this bylaw and other applicable enactments respecting *construction* safety are complied with.
- 4.47 Every *constructor* is responsible jointly and severally with the *owner* for all work undertaken to which this bylaw applies.

PROFESSIONAL DESIGN AND FIELD REVIEWS

Requirement for Registered Professional for Construction of Complex Building

- 4.48 The *owner* must provide *professional design* and plan certification and *field reviews* for the *construction* of a *complex building*, supported by letters of assurance in the form specified in the current *Building Code*, each signed by such *registered professionals* as the *Chief Building Official* or *Building Code* may require.
- 4.49 If the site conditions, size or complexity of a development or an aspect of a development warrant, the *Chief Building Official* may require a qualified professional to determine the bearing capacity by providing design and plan certification and field reviews supported by letters of assurance in form specified in the current *Building Code*.

Other Projects where Registered Professional is Required

- 4.50 The *owner* must provide *professional design* and *field reviews* supported by letters of assurance in the form of Schedules A (if applicable) and B referred to in section 2.6 of Part 2 of the *Building Code*, each signed by such *registered professionals* as the *Chief*

Building Official or Building Code may require, to prepare the *professional design* for and conduct *field reviews* of:

- 4.50.1 the construction or *alteration* of a *simple building constructed* on, or contiguous to, a *complex building*;
- 4.50.2 the *construction or alteration* of *foundations and excavations* in respect of *simple buildings* if required by the *Chief Building Official* in the circumstances set out in section 5.5;
- 4.50.3 the *construction or alteration* of structural, electrical, mechanical or fire suppression elements for *simple buildings* if required by the *Chief Building Official* in the circumstances set out in section 5.5;
- 4.50.4 the *construction or alteration* of any structural components of a *building* that fall within the scope of Part 4 of the *Building Code*;
- 4.50.5 the *construction or alteration* of a *retaining wall*;
- 4.50.6 the *construction or alteration* of a *building* that is designed with common egress systems for the occupants and requires the use of *firewalls* according to the *Building Code*;
- 4.50.7 the *construction or alteration* of the *building envelope* components of:
 - (a) all *buildings* under Part 3 of the *Building Code*,
 - (b) all residential *buildings* that contain more than two dwelling units, and
 - (c) all other *buildings* whose *building envelopes* do not comply with the prescriptive requirements of Part 9 of the *Building Code*;
- 4.50.8 *electrical work* in a complex building;
- 4.50.9 *mechanical work* in a complex building;
- 4.50.10 the installation of storm water pumps;
- 4.50.11 the installation of sanitary pumps where the pump serves an entire residence;
- 4.50.12 the installation of a fire sprinkler system, except for modifications to existing systems involving the relocation or addition of less than six sprinkler heads, in which case the requirement for *registered professional design* and *field review* may be waived by the *Chief Building Official*;
- 4.50.13 the *construction or alteration* of a *building or structure* on a parcel that the *Chief Building Official* believes is subject to or is likely to be subject to flooding, mud flows, debris flows, debris torrents, erosion, land slip, rock falls, subsidence or avalanche. For greater certainty, this requirement for *professional design* and a

field review is in addition to a requirement under any other enactment for a report certified by a qualified professional that the parcel may be used safely for the use intended;

- 4.50.14 any *project* where the *Chief Building Official* considers that the site conditions, size or complexity of or associated with the *project* warrant the provision of *professional design* and *field reviews*.
- 4.51 Sealed copies of the *professional design* and *letters of assurance* required by sections 4.48 and 4.50 must be submitted to the *building official* prior to issuance of a *building permit* for the work.
- 4.52 The requirement for *professional design* and *field review* may be waived by the *Chief Building Official* for work involving minor tenant improvements.
- 4.53 The *Chief Building Official* may require the *registered professional* carrying out the *professional design* and *field review* of a *building* envelope to provide evidence that he or she has experience and expertise in respect of the *professional design* and *field review* of *building* envelopes.
- 4.54 Where *professional design* is required pursuant to sections 4.48 or 4.50, the *owner* must give notice in writing to the *Chief Building Official* of any change in or termination of engagement of a *registered professional* during *construction* immediately when the change or termination occurs.
- 4.55 If an *owner* terminates the engagement of a *registered professional*, the *owner* must terminate the work until the *owner* has engaged a new *registered professional* and has delivered to the *Chief Building Official* letters of assurance.
- 4.56 Where an *owner* has provided a report by a *registered professional*, the *Chief Building Official* make direct that the report be peer reviewed by a qualified professional selected and retained by the *District*. The peer review will be completed at the *owner's* expense and the *owner* must pay the invoice for same within 30 days of the invoice date, If the invoice amount is not paid when due, the *Chief Building Official* may, at his/her discretion, issue a *Stop Work Order Notice*. The unpaid invoice amount may be deducted from the *security deposit*.
- 4.57 For all new single family *construction*, the *owner* must provide *professional design* and plan certification and *field reviews* for the building envelope, supported by letters of assurance in the form specified in the current *Building Code*.

Assurance of Field review

- 4.58 Not less than 48 hours prior to the coordinated preoccupancy site review for a *complex building* and not less than 48 hours prior to final inspection for a *simple building* or other *project* in circumstances where letters of assurance have been required in accordance with section 4.48 or 4.50, the *owner* must provide the *District* with letters of assurance in the form of Schedules C-A or C-B, as appropriate, referred to in section 2.6 of Part 2 of the *Building Code*.

Professional Liability Insurance

- 4.59 A *registered professional* who provides letters of assurance as required by this bylaw must provide proof of professional liability insurance to the *Chief Building Official* in the form specified by the *Chief Building Official*.

Professional Plan Certification

- 4.60 The letters of assurance provided pursuant to sections 4.48 or 4.50 are relied upon by the *District* and its *building officials* as certification that the *professional design* and plans to which the letters of assurance relate comply with the *Building Code*, the *Electrical Code*, the *B.C. Natural Gas and Propane Code* and other applicable enactments relating to safety.

Field reviews

- 4.61 If a *registered professional* provides letters of assurance in accordance with sections 4.48, 4.49, 4.50 or 4.57, the *District* will rely solely on *field reviews* undertaken by the *registered professional* and the letters of assurance submitted pursuant to this bylaw as assurance that the work authorized by the *permit* substantially conforms to the *design*, plans and specifications and that the work substantially complies with the *Building Code*, the *Electrical Code*, *B.C. Natural Gas and Propane Code*, this bylaw, any other applicable bylaw of the *District*, provisions of the *Homeowner Protection Act*, *Safety Standards Act* and associated regulations, or any other applicable enactments respecting safety.
- 4.62 Despite section 4.61, a *building official* may attend the site from time to time during the course of the work to ascertain that the *field reviews* are taking place and to monitor the *field reviews* undertaken by the *registered professionals*.

Stop Work Order

- 4.63 The *Chief Building Official* may direct the immediate suspension or correction of all or a portion of work to which this bylaw applies by attaching a *Stop Work Order Notice* on the premises on which the work is being done where the work is not being performed in accordance with the requirements of the *Building Code*, the *Electrical Code*, the *B.C. Natural Gas and Propane Code*, this bylaw, any other applicable bylaw of the *District*, provisions of the *Homeowner Protection Act*, *Safety Standards Act* and associated regulations, or any other applicable enactments respecting safety.
- 4.64 A *coordinating registered professional* may request, in writing, that the *Chief Building Official* order the immediate suspension or correction of all or a portion of work on a *building* or *structure* by attaching a *Stop Work Order Notice* on the premises on which the work is being done. The *Chief Building Official* will consider such a request and if not acted upon, will give reasons, in writing, to the *coordinating registered professional*.
- 4.65 If a *registered professional's* services are terminated, the *owner* must immediately stop any work that is subject to his or her *professional design* or *field review* and the *Chief Building Official* is deemed to have issued a *Stop Work Order Notice* under section 4.63.

- 4.66 The *owner* must immediately after posting a *Stop Work Order Notice* secure the *construction* and the lands and premises surrounding the *construction* in compliance with the safety requirements of every statute, regulation or order of the Province or of a provincial agency and of every applicable bylaw of the *District*.
- 4.67 No work other than the required remedial measures may be carried out on a parcel affected by the *Stop Work Order Notice* until the *Stop Work Order Notice* has been removed by the *Chief Building Official*.
- 4.68 The *Stop Work Order Notice* must remain posted on the premises until the required remedial measures have been completed and the *Chief Building Official* directs in writing that the notice may be removed.

Do Not Occupy Notice

- 4.69 If a person occupies a *building* or *structure* or part of a *building* or *structure* in contravention of section 4.7.2 of this bylaw a *building official* may post a *Do Not Occupy Notice* on the affected part of the *building* or *structure*.
- 4.70 If a notice is posted under section 4.69, the *owner* of the parcel on which a *Do Not Occupy Notice* has been posted and every other person must cease occupancy of the *building* or *structure* immediately and must refrain from further *occupancy* until all applicable provisions of the *Building Code* and this bylaw have been substantially complied with and the *Do Not Occupy Notice* has been rescinded in writing by a *building official*.

No Interference with Notices

- 4.71 A person must not reverse, alter, deface, cover, remove or in any way tamper with a *construction* site identification placard, *Stop Work Order Notice*, certificate, card or notice posted on or affixed to a *building* or *structure* pursuant to a provision of this bylaw unless authorized by the *Chief Building Official*.

PART 5 BUILDING PERMIT

Requirements before Applying for Building Permit

- 5.1 Prior to submitting an application for a *building permit*, the *owner* must satisfy the following requirements or conditions:
- 5.1.1 issuance of a development permit in an area designated by the *District's* official community plan as a development permit area, where required;
 - 5.1.2 compliance of the proposed *building* or *structure* with all *District* bylaws, except to the extent a variance of a bylaw is authorized by a development permit, development variance permit or order of the Board of Variance;
 - 5.1.3 signing by the *Approving Officer* of a subdivision plan that, once registered, would create the parcel on which the *building* or *structure* is proposed to be *constructed*;
 - 5.1.4 documentation to provide evidence to the *Chief Building Official* that the *person*

applying for the proposed *building permit* is the *owner* of the parcel that is the subject of the proposed *building permit* application or is the *agent* of the *owner*;

- 5.1.5 if the parcel that is the subject of the proposed *building permit* application is not, or is not intended to be, connected to the *District's* sewage disposal system, approval of an alternate *private sewage disposal system*;
- 5.1.6 if the parcel that is the subject of the proposed *building permit* application is not connected to the *District's* waterworks system, approval of an alternate water supply system.

Applications for Complex Buildings

- 5.2 An application for a *building permit* with respect to a *complex building* must include all of the applicable information, documents and plans specified in the Master Requirements List and:
 - 5.2.1 be accompanied by the *Owner's Responsibilities Form* and, where applicable, the *Authority to Represent the Owner Form*, in the forms specified by the *Chief Building Official*, signed by the *owner* or a signing officer if the *owner* is a corporation;
 - 5.2.2 include a copy of a title search made within 30 days of the date of the application;
 - 5.2.3 include the name and address of the *designer* of the *building* or *structure*; and
 - 5.2.4 include a *Building Code* compliance summary, including applicable edition of the *Building Code*, Part 3 or Part 9 designation, major occupancy classification(s) of the *building*, *building* area and height, number of streets the *building* faces, accessible entrances, work areas, washrooms and facilities.
- 5.3 In addition to the requirements of section 5.2, the following may be required to be submitted with a *building permit* application for the *construction* of a *complex building* if, in the opinion of a *building official*, the complexity of the proposed *building* or *structure* or siting circumstances warrant:
 - 5.3.1 site servicing drawings, including sufficient detail of off-site services to indicate locations at the property line, prepared and sealed by a *registered professional*, in accordance with the *District's* development servicing bylaw;
 - 5.3.2 section through the site showing grades, *buildings*, *structures*, parking areas and driveways;
 - 5.3.3 any other information required by the *building official* or the *Building Code* to establish compliance with this bylaw, the *Building Code* and other bylaws and enactments relating to the *building* or *structure*.

Applications for Simple Buildings

- 5.4 An application for a *building permit* for a *simple building* must include all of the applicable

information, documents and plans specified in the Master Requirements List and:

- 5.4.1 the *Owner's Responsibilities Form* and, where applicable, the *Authority to Represent the Owner Form*, in the form specified by the *Chief Building Official*, signed by the *owner* or a signing officer if the *owner* is a corporation;
- 5.4.2 a title search made within 30 days of the date of the application;
- 5.4.3 the name and address of the *designer* of the *building* or *structure*;
- 5.4.4 a foundation and excavation design for (i) components of new *simple buildings* greater than 46 m² and (ii) *additions* to *simple buildings* greater than 46 m² to *simple buildings* prepared by a *registered professional* in accordance with section 4.2 of Part 4 of the *Building Code*. This section 5.4.4 does not apply to garages, carports and garden *structures* located on land zoned for single family use. The requirements of this section 5.4.4 may be waived by the *Chief Building Official* if documentation, prepared and sealed by a *registered professional*, is provided assuring that the *professional design* of the foundation substantially complies with section 9.4.4 of Part 9 the *Building Code* and the foundation excavation substantially complies with section 9.12 of Part 9 of the *Building Code*;
- 5.4.5 include a geotechnical report if the *Chief Building Official* determines that the site conditions so warrant;
- 5.4.6 include letters of assurance as may be required pursuant to section 4.50 ;
- 5.5 In addition to the requirements of section 5.4, the *Chief Building Official* may require the following to be submitted with a *building permit* application for the *construction* of a *simple building* if the *project* involves two or more *buildings* which in the aggregate total more than 1000 square meters or two or more *buildings* that will contain four or more dwelling units:
 - 5.5.1 site servicing drawings, including sufficient detail of off-site services to indicate locations at the property line, prepared and sealed by a *registered professional*, in accordance with the Development Servicing Bylaw 8145;
 - 5.5.2 a section through the site showing grades, *buildings*, *structures*, parking areas and driveways;
 - 5.5.3 a roof plan and roof height calculations;
 - 5.5.4 letters of assurance as required by section 4.50;
 - 5.5.5 any other information required by the *building official* or the *Building Code* to establish substantial compliance with this bylaw, the *Building Code* and other bylaws and enactments relating to the *building* or *structure*.

Survey

- 5.6 The *Chief Building Official* may order any *owner* to submit an up to date plan of survey prepared by a registered British Columbia land surveyor which contains sufficient

information respecting the site and location of any *building*:

- 5.6.1 to establish, before *construction* begins, that all the provisions of this bylaw in relation to this information will be complied with;
- 5.6.2 to verify, on completion of the *construction*, that:
 - (a) finished grade elevations and onsite drainage works have been completed in accordance with the *building permit* plans; and
 - (b) all provisions of this bylaw have been complied with;
- 5.6.3 in relation to an existing *building*, when and as required by the *Chief Building Official*, to substantiate its location, size, including appendages whether above, at or below ground level, relative to the site or its relationship to neighbouring grades; and
- 5.6.4 in relation to *construction* of a new *building* or addition to an existing *building*, prior to the placement of concrete for *foundations* and footings, including the elevations at proposed top of concrete on all *building* elevations and at all significant changes of elevation to substantiate its size, location and elevation,

and every person served with an order under this section must comply with the order.

Security Deposit

- 5.7 Except as provided in section 5.8, an applicant for a *building permit* must pay to the *District*, at the time of the application, *security deposits* in the following amounts in the form of cash or an irrevocable letter of credit in a form satisfactory to the *District*:
 - 5.7.1 \$10,000 or 1.0 percent of the *value of the work*, whichever is greater, to a maximum of \$20,000 for each new single family residential dwelling or demolition authorized by the *permit*;
 - 5.7.2 \$2,500 or 1.0 percent of the *value of the work*, whichever is greater, to a maximum of \$5,000 for each *permit* for additions, renovations, alterations in a single family dwelling;
 - 5.7.3 1.0 percent of the *value of the work* up to a maximum of \$1,000 where the property to which the *permit* relates is not the subject of a form and character *development permit*;
 - 5.7.4 where the property to which the *building permit* relates is the subject of a form and character *development permit*, the security taken for landscaping under the *development permit* will serve as the security for the *building permit* and may be used by the District in accordance with section 5.10; and
 - 5.7.5 1.0 percent of the *value of the work* where the property to which the *permit* relates does not fall within subsections 5.7.1 through 5.7.4.
- 5.8 Notwithstanding section 5.7, where an applicant for a *building permit* has multiple *permits*

in progress, the *Chief Building Official* may, but is not obligated to, permit such applicant to post and maintain rolling *security deposit* amounts as set out in the table below to serve as the *security deposit* required in section 5.7 for any applicant which is named on the letter of credit, provided however that the *Chief Building Official* may revoke the approval under this section 5.8 where the applicant has a history of repeated or on-going non-compliance with construction-related *District* bylaws:

Number of Permits	Security Deposit Amount
Up to 10	\$50,000.00
11 to 20	\$80,000.00

5.9 Notwithstanding section 5.7, the *Chief Building Official* may waive the requirement to provide a *security deposit* where satisfied that (a) the *value of the work* is less than \$100,000.00 and (b) the likelihood of damage being caused to *District* infrastructure is low.

5.10 The *security deposit* may be used by the *District* to:

5.10.1 cover the costs borne by the *District* to:

- (a) maintain, restore or replace any public works or public lands which are destroyed, damaged or otherwise impaired in carrying out the work referred to in any *permit* held by the applicant, in accordance with sections 4.37 and 4.38;
- (b) cover the costs borne by the *District* to make the site safe if the *permit* holder abandons or fails to complete the work as designated on the *permit*;
- (c) clear any debris, material, dirt, chattels, or equipment which have accumulated on any road, lane, sidewalk, boulevard or other *District* property as a result of work carried out in connection with any *building permit* held by the applicant;
- (d) backfill the site and make the site level based on the grades indicated on the topographical survey submitted as part of the application for a *permit*;
- (e) install erosion and sediment controls;
- (f) install sod, sow seeds, or plant trees and/or vegetation;
- (g) make the site safe if the *permit* holder abandons or fails to complete the work as designated on the *permit*;
- (h) correct any damage to the environment that results as a consequence of a contravention of any condition or requirement in a *development permit*;

5.10.2 pay for a peer review required pursuant to section 4.56 where the *owner* has failed to pay;

- 5.10.3 cover the District's administrative costs including, but not limited to, costs incurred investigating expired *permits*, renewing existing *permits*, re-inspection fees, legal costs or Land Title Office registration costs for notices filed against title;
- 5.10.4 serve as the *security deposit* for a provisional *occupancy permit* when such a *permit* requires a security deposit; and
- 5.10.5 serve as a *security deposit* for the purpose of effecting compliance with any condition under which the *permit* was issued.
- 5.11 Where the *District* has drawn down the *security deposit* in accordance with section 5.10, the *building permit* applicant must within 10 days of notice from the *District* restore the *security deposit* to the amount originally posted.
- 5.12 The security taken pursuant to the Environmental Protection and Preservation Bylaw 6515 and the Tree Protection Bylaw 7671 constitutes security for the purpose of this bylaw and may be used in accordance with section 5.10 and the *security deposit* taken pursuant to section 5.7 of this bylaw may be used as security for the purpose of the Environmental Protection Bylaw 6515 and the Tree Protection Bylaw 7671.
- 5.13 The *security deposit*, or the amount remaining after any deductions made by the *District* in accordance with section 5.10, will be returned, with interest, to the person or entity that paid the *security deposit* after:
 - 5.13.1 all required repairs, replacement, clean-up and other works under section 5.10.1 have been completed to the satisfaction of the *building official*;
 - 5.13.2 the *building official* is satisfied that no further damage to public works or public lands will occur;
 - 5.13.3 the *building reviews* required by this bylaw are complete and acceptable to the *building official*; and
 - 5.13.4 the conditions or provisions of a provisional *occupancy permit* are completed to the satisfaction of the *building official*.
- 5.14 Any amount in excess of the *security deposit* required by the *District* to complete corrective work to public lands, public works, or the site is recoverable by the *District* from the *permit* holder, the *constructor* or the *owner* of the property.
- 5.15 If a *security deposit* is not collected by the payee within 5 years of the date the *occupancy permit* was issued or the last inspection was conducted, the full amount may be retained by the District and deposited to general revenue.

Compliance with the Homeowner Protection Act

- 5.16 If a *building permit* application is made in respect of a *building* that includes, or will include, a *residential occupancy*, the *building permit* must not be issued unless the *owner* provides evidence under section 30(1) of the *Homeowner Protection* that the proposed *building*:
 - 5.16.1 is covered by home warranty insurance; and

5.16.2 the *constructor* is a licensed residential builder.

- 5.17 Section 5.16 does not apply if the *owner* is not required to be licensed and to obtain home warranty insurance in accordance with sections 20(1) or 30(1) of the *Homeowner Protection Act*.
- 5.18 Every *building permit* is issued subject to the *owner* and *constructor* maintaining compliance with the *Homeowner Protection Act* and negotiations under it during the term of the *building permit*.

Partial Building Permit

- 5.19 A *building official* may issue a *building permit* for a portion of a *building* or *structure* or for an *excavation* before the design, plans and specifications for the entire *building* or *structure* have been accepted if sufficient information has been submitted to the *District* to demonstrate to the *building official* that the portion authorized to be *constructed* substantially complies with this and other applicable bylaws and all *security deposits* and charges related to the entire *building* or *structure* and the *permit* fee applicable to that portion of the *building* or *structure* have been paid. Despite the issuance of a *permit*, the requirements of this bylaw apply to the remainder of the *building* or *structure* as if the *permit* for the portion of the *building* or *structure* had not been issued.
- 5.20 If a site has been *excavated* under a *building permit* for *excavation* only and a *building permit* is not subsequently issued for a *building* or *structure* to which the *excavation* relates, or if such a *permit* is issued but subsequently expires without the *construction* of the *building* or *structure* having commenced, the *owner* must fill in the *excavation* and restore the original gradients of the site within 60 days of being served notice by the *District* to do so.

Building Reviews

- 5.21 If a *registered professional* provides letters of assurance in accordance with section 4.48, 4.49, 4.50 or 4.57, the *District* will rely solely on *field reviews* by the *registered professional* and the letters of assurance submitted pursuant to this bylaw as assurance that the *construction* substantially conforms to the design, plans and specifications and that the *construction* complies with the *Building Code*, this bylaw and other applicable enactments respecting safety.
- 5.22 Despite section 5.21, a *building official* may attend the site from time to time during the course of *construction* to ascertain that the *field reviews* are taking place and to monitor the *field reviews* undertaken by the *registered professionals*.
- 5.23 A *building official* may attend periodically at the site of the *construction* of *simple buildings* or *structures* to ascertain whether the *health and safety aspects of the work* are being carried out in substantial conformance with those portions of the *Building Code*, this bylaw and any other applicable enactments concerning safety.
- 5.24 For all work in respect of *simple buildings*, the *owner* must:

- 5.24.1 where required by the *Chief Building Official*, arrange a preconstruction meeting with at least 48 hours' notice to the *District* and said preconstruction meeting must be attended by the *building official*, the *constructor* and the *owner* or his or her representative, ;
- 5.24.2 give at least 24 hours' notice to the *District* when requesting a *building review*; and
- 5.24.3 obtain a *building review* and receive a *building official's* written acceptance of the following aspects of the work prior to concealing them:
- (a) after demolition, but only where no *building permit* has been applied for in respect of the site, the grading of and removal of debris from the site;
 - (b) foundation and footing forms, before concrete is poured;
 - (c) foundation dampproofing;
 - (d) site and foundation drainage;
 - (e) prior to inspection under section 5.24.3(f), plumbing located below the finished slab level;
 - (f) after preparation of the subgrade, but prior to pouring the concrete floor slab including any hydronic heating pipes and below slab insulation;
 - (g) framing, firestopping, bracing, chimney and ductwork, including rough in of factory built chimneys and fireplaces and solid fuel burning appliances, rough wiring, rough plumbing, rough heating, rough gas piping, gas venting, gas appliance rough in, exterior doors and windows, but prior to the installation of insulation, interior finishes, sheathing paper or exterior finishes which would conceal such work;
 - (h) insulation and vapour barrier;
 - (i) the *health and safety aspects of the work* when the *building* or *structure* is substantially complete (prior to *occupancy*, where *occupancy* is required).
- 5.25 A *building official* will only carry out a *building review* under section 5.24 if the *owner* has requested the *building review* and only in the order prescribed in section 5.24.3(a) to (j).
- 5.26 Despite the requirement for the *building official's* acceptance of the work outlined in section 5.24.3, if a *registered professional* provides letters of assurance, the *District* will rely solely on *field reviews* by the *registered professional* and the letters of assurance submitted pursuant to this bylaw as assurance that the aspect of the *construction* referenced by those letters of assurance substantially conform to the design, plans and specifications and that the *construction* complies with the *Building Code*, this bylaw and other applicable enactments respecting safety.
- 5.27 A person must not conceal any aspect of the work referred to in section 5.24.3 of this bylaw until a *building official* has provided notice of acceptance.

5.28 For work in respect of *complex buildings*, the *owner* must:

- 5.28.1 arrange a preconstruction meeting with at least 48 hours' notice to the *District* and said preconstruction meeting must be attended by the *building official*, the *owner* or his or her representative, the *coordinating registered* professional, the *constructor* as well as representatives of major trades;
- 5.28.2 arrange a pre-occupancy coordinated site review meeting with at least 48 hours' notice to the *District* for the *owner*, the *constructor* and the *registered professionals* to demonstrate to the *building official* and *District Fire Service* the compliance with the *health and safety aspects of the work*, the coordination and integration of the fire and life safety system, applicable *District* requirements and other enactments respecting safety; and
- 5.28.3 cause the *coordinating registered professional* to deliver to the *building official*, at least 48 hours prior to the pre-occupancy coordinated site review meeting, a confirmation of required documentation in the form specified by the *Chief Building Official*, with all such documentation contained in a hard covered three ring binder and in digital pdf format on a USB flash drive.

Occupancy Permits

5.29 A person must not:

- 5.29.1 occupy or *permit occupancy* of a *building* or *structure* or part of a *building* or *structure* until a *building official* has issued a final inspection notice for it;
- 5.29.2 a new *building* or *structure* or a *building* where there has been a change in the occupancy classification under the *Building Code* until an *occupancy permit* has been issued by the *Chief Building Official*.

5.30 An *occupancy permit* will not be issued unless:

- 5.30.1 all letters of assurance have been submitted when required by this bylaw;
- 5.30.2 the confirmation of required documentation specified in section 5.28.3 has been submitted when required in accordance with the requirements of this bylaw;
- 5.30.3 all aspects of the work requiring *building review*, inspection and acceptance pursuant to this bylaw have been reviewed, inspected and accepted or the inspections and acceptance are not required pursuant to section 5.21;
- 5.30.4 the post *construction* reports by the applicable qualified professionals pursuant to the *development permit* have been submitted;
- 5.30.5 the *owner* has executed and delivered to the *District* every agreement, instrument or form required by the *District* in relation to the work or the site; and
- 5.30.6 all required off site works respecting safety have been completed.
- 5.30.7

- 5.31 A *building official* may issue a provisional *occupancy permit* for partial occupancy of all or a portion of a *building* under *construction* when that portion of the *building* or *structure* is self-contained and provided with essential services respecting health and safety. The holder of a provisional *occupancy permit* must pay the Provisional Occupancy Fee prescribed in the Fees and Charges Bylaw 6481.

Temporary Building

- 5.32 Subject to the bylaws of the *District* and orders of *Council*, the *Chief Building Official* may issue a *building permit* for the erection or placement of a *temporary building* or *structure* for *occupancy* provided that the occupancy will not exceed one year and the *building* or *structure* will be removed immediately thereafter.
- 5.33 The application for a *building permit* for the erection or placement of a *temporary building* or *structure* must include:
- 5.33.1 the information, documents and plans specified in the Master Requirements List;
 - 5.33.2 security in the form of cash or a letter of credit for 10% of the value of the *temporary building*, which security:
 - (a) may be used by the *District* to remove the *building* after one year of the date of the final inspection required under this bylaw, or
 - (b) must be returned to the *owner* if the *owner* removes the *temporary building* within one year of the date of the final inspection of the *temporary building* required under this bylaw; and
 - 5.33.3 the non-refundable Temporary Building Fee prescribed in the Fees & Charges Bylaw 6481.

Sanitary Facilities

- 5.34 After a *building permit* has been issued and during the time it remains valid under this bylaw, the *owner* must provide on the parcel of land in respect of which the *building permit* has been issued, sanitary facilities for the disposal of human waste from individual persons who enter on the parcel in relation to the work referred to in the *building permit*, which facilities must be accessible and unlocked when not occupied, and every sanitary facility that is not connected by plumbing that complies with the *British Columbia Plumbing Code* and this bylaw to a:
- 5.34.1 sanitary sewer; or
 - 5.34.2 septic disposal system approved under the *Public Health Act*, SBC 2008, c. 28, as amended or replaced from time to time,
- must, at all times the facility is required under this bylaw, be supplied with toilet paper, a locking door for privacy, and ventilation, and kept in a sanitary condition without leaking beyond the facility and without overflowing within the facility. Such facilities must be located so as not to create a nuisance to neighbouring parcels or highways.

PART 6 ACOUSTIC REQUIREMENTS

- 6.1 The applicant for a *building permit for construction* of any *building* which will contain a *residential occupancy*, other than a single family dwelling, must provide as part of the application a report and recommendations prepared by persons trained in acoustics and current techniques of noise measurements demonstrating that the noise levels in those portions of the dwelling listed below shall not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units. For the purpose of this section, the noise level is the A-weighted 24-hour equivalent (Leq) sound level:

<u>Portion of Dwelling Unit</u>	<u>Noise Level (Decibels)</u>
Bedrooms	35
Living, dining, recreation rooms	40
Kitchen, bathrooms, hallways	45

PART 7 ACCESSIBLE DESIGN REQUIREMENTS

- 7.1 The applicant for a *building permit for construction* of a multi-family *building* must demonstrate that the design and *construction* complies with the District's Accessible Design Policy for Multi-Family Housing, as amended or replaced, or such other design as may be accepted by the *Chief Building Official*.

PART 8 POOLS

Permit Required

- 8.1 Without limiting section 4.6, no person may *construct* or structurally repair a swimming *pool* without a valid and subsisting *building permit*.

Swimming Pool Fencing

- 8.2 A *pool*, spa or hot tub not contained within a *building* must be completely enclosed by a fence *constructed* without footholds or grips that children may use to climb into the enclosed area, having a minimum height of 1.2 meters and no openings greater than 100 mm at their least dimension.

Pool Gate

- 8.3 Access through a fence enclosing a *pool*, *spa* or *hot tub* must be only through a self-closing and self-latching gate designed and *constructed* or installed so as to cause the gate to return to a closed position when not in use and secured by a latch located on the *pool*, *spa* or *hot tub* side of the gate.

Spa or Hot Tub Lid

- 8.4 In lieu of a fence, a spa or hot tub may be covered with a locking cover to prevent unauthorized access to the water.

Maintenance

- 8.5 The owner and the occupier of any property on or in which a *pool*, spa or hot tub is located must maintain all fences, gates or covers required under sections 8.2 to 8.4 in good order at all times and must immediately repair or replace any sagging fences, gates, loose parts, torn mesh, missing materials, worn latches, locks or broken or binding members.

PART 9 RETAINING WALLS

Permit

- 9.1 Without limiting section 4.6, no *person* may *construct*, or structurally repair, a *retaining wall* without a valid and subsisting *building permit* or *development permit*, if required.
- 9.2 A *registered professional* must undertake the design and conduct *field reviews* of the *construction* or structural repair of a *retaining wall*. Sealed copies of the design plan and letters of assurance prepared by the *registered professional* for all *retaining walls* must be submitted to a *building official* prior to issuance of a *permit* for the work.

Slopes Created by Excavation

- 9.3 Except as certified by a qualified professional, a cut on a parcel that is steeper than one linear unit vertically to one linear unit horizontally and total height of 1.22 meters or more that is created by *excavation* is prohibited unless restrained by a *retaining wall*.

Slopes Created by Fill Material

- 9.4 Except as certified by a qualified professional, fill material placed on a parcel, unless restrained by permitted *retaining walls*, must not have a surface slope exceeding a ratio of one linear unit vertically to two linear units horizontally.

PART 10 BUILDING MOVE

Permit Required

- 10.1 No *person* may relocate a *building* or *structure* into, out of or within the *District* without a valid and subsisting *building permit* for the relocation.
- 10.2 No *person* may relocate a *building* or *structure* into or within the *District* except:
- 10.2.1 where a *registered professional* has certified that the *building* or *structure* will substantially comply with the current version of the *Building Code*; and

10.2.2 a *building* permit has been issued for the *building* or structure.

PART 11 ADDRESSING AND SUITE NUMBERING

Addressing

- 11.1 A person must not *construct* on a parcel unless the civic address is conspicuously posted on the front of the premises or on a sign post so it may be easily read from the public highway from which it takes its address.
- 11.2 Immediately upon issuance of a *building permit* or prior to and during the occupancy of a *building*, until such time as the *building* is removed from the site or has been demolished, the *owner* or occupant must display the address number assigned to the *building* by the *Chief Building Official*:
- 11.2.1 on or over the entrance to the *building*; or
- 11.2.2 elsewhere on the *building* within sight of the street where landscaping or *structures* obscure the view of the *building* entrance from the street.
- 11.3 Despite section 11.2, the *Chief Building Official* may re-number or alter the assigned numbers in respect of any *buildings* on any parcel, including those already in existence or numbered.
- 11.4 The address numbers must be on a contrasting background and of a size in conformance with Table 11.3.1 below:

Table 11.3.1

Building Setback from Street	Minimum Non-illuminated Character Size	Minimum Illuminated Character Size
0-15 m	100 mm	80 mm
15-20 m	150 mm	100 mm
Greater than 20 m	200 mm	150 mm

Suite Numbering

- 11.5 Except as otherwise authorized by the *Chief Building Official*, all buildings must use a consecutive increasing numbering system for storey and suite numbering without skipping any numbers in accordance with the following:
- 11.5.1 Floors number in increasing numerical sequence starting from either the first storey as established by the *Building Code* or the primary addressed street entrance and without skipping any numbers;

- 11.5.2 Numbering must not skip numbers between adjacent floor levels; and
- 11.5.3 Suites must be numbered in increasing numerical sequence, in a clockwise fashion starting from the first and closest suite located directly to the left when entering the floor space through either the primary addressed street entry or the passenger elevator serving the primary addressed street entry and ending to the right of the elevator.

PART 12 MECHANICAL PERMIT

Potable Water Cross Connection

- 12.1 The *Chief Building Official* may, in respect of a parcel where there is a cross connection to potable water, disconnect the water service to the parcel and discontinue the water service until the *Chief Building Official* confirms that the cross connection to the potable water has been removed.

Mechanical Permits for Simple Building

- 12.2 An application for a *mechanical permit* for *plumbing* for a *simple building* must:
 - 12.2.1 include the applicable information, documents and plans specified in the Master Requirements List; and
 - 12.2.2 contain any other information necessary to satisfy the *Chief Building Official* that the proposed installation, *alteration* or repair of plumbing complies with the *health and safety aspects of the work* and this and every other applicable *District* bylaw; and
 - 12.2.3 be submitted together with the applicable fees prescribed in the Fees and Charges Bylaw 6481 in accordance with section 16.1 of this bylaw.
- 12.3 An application for a *mechanical permit* for a forced air heating distribution system for a *simple building* must include heat loss calculations and appliance selection work sheet per the HVACIABC “Quality First” guidelines or equivalent.
- 12.4 An application for a *mechanical permit* for a hydronic heating distribution system for a *simple building* must include:
 - 12.4.1 heat loss calculations and hydronic system design per the RHWABC guidelines or equivalent;
 - 12.4.2 letters of assurance as may be required pursuant to section 4.48 or 4.50.

Mechanical Permits for Complex Building

- 12.5 An application for a *mechanical permit* for *plumbing* for a *complex building* must be signed by a licensed plumber and:

- 12.5.1 include the applicable information, documents and plans specified in the Master Requirements List; and
- 12.5.2 contain any other information necessary to satisfy the *Chief Building Official* that the proposed installation, *alteration* or repair of plumbing complies with the *health and safety aspects of the work* and this and every other applicable *District* bylaw.
- 12.5.3 when required by the *Chief Building Official*, include a minimum of two complete sets of:
 - (a) plans showing the location and size of every *building* drain and every trap, sump and *plumbing* fixture and all water distribution piping; and
 - (b) sectional drawings showing the size and location of every *soil* or waste pipe, trap and vent pipe,

and the drawings and documents must be sealed by the *registered professional* and include complete design and calculation criteria so that the *Chief Building Official* has the information available for examination;
- 12.5.4 include letters of assurance as required pursuant to section 4.48 or 4.50;
- 12.5.5 contain any other information necessary to satisfy the *Chief Building Official* that the proposed installation, *alteration* or repair of plumbing complies with the *health and safety aspects of the work* and this and every other applicable *District* bylaw; and
- 12.5.6 be submitted together with the applicable fees prescribed in the Fees and Charges Bylaw 6481 in accordance with section 16.1 of this bylaw.
- 12.6 An application for a *mechanical permit* for sprinklers or a fire suppression system must:
 - 12.6.1 be signed by a licensed sprinkler fitter or, if permitted by a provincial enactment, the *owner*;
 - 12.6.2 include plans, sections and documentation as required by the relevant NFPA 13, 13r or 13d standard sealed by the *registered professional*; and
 - 12.6.3 include letters of assurance as may be required pursuant to section 4.48 or 4.50.

Storm and Sanitary Sewer Connections

- 12.7 Every *owner* of a parcel must in all cases where it is proposed to conduct waste from *plumbing* fixtures, trade waste or surface or roof water to a public sewer:
 - 12.7.1 confirm with the *Chief Building Official* that the public sewer is at a sufficient depth and of a capacity to receive the discharge;
 - 12.7.2 deliver to the *District's* Director of Engineering such information as the Director of Engineering may require to show that the proposed sewers will be laid at such depth and in such a position as to connect the property with the *building* or storm

sewer extension; and

- 12.7.3 arrange the plumbing to suit the location of the connection provided for the parcel by the *Chief Building Official*.

Mechanical Inspections

- 12.8 *A building official* may attend periodically at the site of *mechanical work* in respect of *simple buildings* or *structures* to ascertain whether the *health and safety aspects of the work* are being carried out in substantial conformance with those portions of the *Building Code*, this bylaw and any other applicable enactments concerning safety.
- 12.9 For all *mechanical work* in respect of *simple buildings* the *owner*, or his or her representative, must give at least 24 hours' notice to the *District* when requesting an inspection and must obtain an inspection and receive a *building official's* acceptance of the following aspects of the work prior to concealing them:
- 12.9.1 underground water, sanitary and storm services, foundation drainage piping and damp proofing; prior to such inspection the *owner* or his agent, must deliver to the *Chief Building Official* a letter sized site and foundation drainage plan;
- 12.9.2 heating distribution piping or duct work;
- 12.9.3 rough plumbing;
- 12.9.4 rough fire sprinkler and fire suppression piping;
- 12.9.5 tub and shower fixtures and piping;

after the *mechanical work* is complete and ready for occupancy, but before occupancy.

- 12.10 *A building official* will only carry out an inspection under section 12.8 if the *owner* has requested the inspection and only in the order prescribed in section 12.9.1 to 12.9.5.
- 12.11 The requirements of section 12.9 do not apply to any aspect of the work that is the subject of a *registered professional's* letters of assurance provided in accordance with section 4.50.
- 12.12 If a *registered professional* provides letters of assurance in accordance with sections 4.48, 4.49, 4.50 or 4.57, the *District* will rely solely on *field reviews* undertaken by the *registered professional* and the letters of assurance submitted pursuant to this bylaw as assurance that the work authorized by the *permit* substantially conforms to the *design*, plans and specifications and that the work substantially complies with the *Building Code*, the *Electrical Code*, *B.C. Natural Gas and Propane Code*, this bylaw, any other applicable bylaw of the *District*, provisions of the *Homeowner Protection Act*, *Safety Standards Act* and associated regulations, or any other applicable enactments respecting safety.
- 12.13 Despite section 12.12, a *building official* may attend the site from time to time during the course of the work to ascertain that the *field reviews* are taking place and to monitor the *field reviews* undertaken by the *registered professionals*.

12.14 For *mechanical work* in respect of *complex buildings* the *owner* or his or her representative must:

12.14.1 arrange a preconstruction meeting prior to the start of *construction* with at least 48 hours' notice to the *District* and this preconstruction meeting must be attended by the *building official*, the *owner* or his or her representative, the *coordinating registered professional*, the *constructor* and representatives of major trades;

12.14.2 request an inspection prior to opening the premise isolation water valve;

12.14.3 request an inspection prior to removal of the sanitary premise isolation plug; and

12.14.4 request an inspection prior to removal of the storm water premise isolation plug.

Provisional Plumbing Final

12.15 The *Chief Building Official* may issue an inspection notice for provisional *plumbing* final in support of provisional *occupancy* of part of a *building* pursuant to section 5.31.

Connection to Storm Drainage System

12.16 Subject to the Sewer Bylaw 6656 and Development Servicing Bylaw 8145, during *construction* or *alteration* of a single or two family dwelling, the *owner* must connect all rainwater conductors in the onsite drainage system to a municipal storm drainage system provided such system is contiguous to the parcel on which the *construction* or *alteration* is taking place.

12.17 The onsite drainage system referred to in section 12.16 must be extended to the rear parcel line if the municipal connection is located at the front of the parcel or to the front parcel line if the municipal connection is located at the rear of the parcel wherever reasonably possible.

Plumbing Regulations

12.18 An *owner* must:

12.19 not permit or cause to be permitted material transitions upstream of the main shut off valve within the perimeter of a *building* foundation;

12.20 ensure that sanitary and storm sewer connections in respect of a *building* are fitted with a *District* standard inspection chamber at or near the property line;

12.21 not permit or cause to be permitted corrugated, perforated and unperforated plastic piping to be used in conveying storm water in a storm drainage system; and

12.22 not permit or cause to be permitted the connection of any subsoil drainage system to a drywell or rock pit unless the subsoil conditions are suitable for use of a drywell or rock pit as determined by a soil report prepared by a qualified professional engineer and accepted by the *Chief Building Official* in advance.

Storm Water Pumps

- 12.23 A *mechanical permit* for the installation of storm water pumps must include letters of assurance as required pursuant to section 4.50.10.
- 12.24 New storm water pump installations must include:
- 12.24.1 dual or duplex pumps; and
 - 12.24.2 a high level alarm audible within the premises.
- 12.25 As a condition of issuance of a *mechanical permit* for the installation of a storm water pump, the *Owner* must grant to the *District* a covenant under section 219 of the *Land Title Act*, RSBC 1996, c. 250, as amended or replaced from time to time, in a form satisfactory to the *municipal solicitor*.

Sanitary System Pumps

- 12.26 A *mechanical permit* for the installation of sanitary pumps where the pump serves an entire residence must include letters of assurance as required pursuant to section 4.50.11.
- 12.27 New sanitary pump installations must include a high level alarm audible within the premises.

Fire Sprinklers

- 12.28 "*Fire limits area*" in this Part means the areas shown on the plan attached as Schedule C.
- 12.29 Except as set out in section 12.30, sections 12.31 to 12.33 apply to:
- 12.29.1 a new *building* containing a mercantile, industrial, assembly, institutional, business, personal service or *residential occupancy*;
 - 12.29.2 an existing *building* containing a *residential occupancy* upon creation of an additional dwelling unit;
 - 12.29.3 an existing *building* containing a mercantile, industrial, assembly, institutional, business, personal services or *residential occupancy* if the total *building permit* value of all *additions* and structural *alterations* made within any consecutive 24 month period, as determined by the *Chief Building Official* pursuant to this bylaw, exceeds 25% of the assessed value of the existing *building* as determined by the most recent assessment by the British Columbia Assessment Authority; and
 - 12.29.4 an existing *building* containing a *residential occupancy* and located within the *fire limits area* if the total *building permit* value (excluding the value of the fire sprinkler system) of all *additions* and or structural *alterations* made within any consecutive 24 month period, as determined by the *Chief Building Official* pursuant to this bylaw, exceeds \$100,000.00.
- 12.30 Sections 12.31 to 12.33 do not apply to single family *residential* dwelling units located

outside the *fire limits area*, accessory *buildings* having a floor area of less than 30 square meters, *temporary buildings*, park shelters, detached gas station canopies or detached garages serving only one dwelling unit.

- 12.31 A *building* containing a mercantile, industrial, assembly, institutional, business, personal service or *residential occupancy* and any *building* in a *fire limits area* must be sprinklered in accordance with NFPA 13 1996 "Standard for Installation of Sprinkler Systems".
- 12.32 A *building* containing only a *residential occupancy* of up to four storeys in height must be sprinklered in accordance with NFPA 13 1996 "Standard for installation of Sprinkler Systems" or with NFPA 13R 1996 "Standard for installation of Sprinkler Systems in Residential Occupancies up to and including Four Storeys in Height", except as set out in section 12.33.
- 12.33 A *building* containing only one or two family *residential occupancies* must be sprinklered in accordance with NFPA 13 1996 "Standard for installation of Sprinkler Systems" or with NFPA 13R 1996 "Standard for installation of Sprinkler Systems in Residential Occupancies up to and including Four Storeys in Height", or NFPA 13D 1996 "Standard for installation of Sprinkler Systems in one and two Family Dwellings and Mobile Homes".
- 12.34 A *mechanical permit* for the installation of fire sprinkler systems must include letters of assurance as required pursuant to section 4.50.12.

Water Conservation

- 12.35 Every water closet must be a low consumption type which:
 - 12.35.1 conforms with CSA B45.0-99, "General Requirements for Plumbing Fixtures"; and
 - 12.35.2 has an average water consumption not exceeding 6 litres per flush cycle.
- 12.36 Every urinal must be a low consumption type which:
 - 12.36.1 conforms with CSA B45.0-99, "General Requirements for Plumbing Fixtures"; and
 - 12.36.2 has an average water consumption not exceeding 3.8 litres per flush cycle.

Gas Work

- 12.37 No *mechanical permit* is required under this Bylaw for *gas work* that may be done without a *permit* pursuant to the *Gas Safety Regulation*.
- 12.38 Only those persons who may perform *gas work* pursuant to the *Gas Safety Regulation* may apply for a *mechanical permit* for *gas work* under this bylaw.
- 12.39 An application for a *mechanical permit* must be submitted together with the applicable fees prescribed in the Fees and Charges Bylaw 6481 in accordance with section 16.1 of this bylaw.

- 12.40 The *District's* mechanical inspectors are safety officers under the *Safety Standards Act* for the purpose of administering the *Gas Safety Regulation* and have all of the powers of safety officers under said enactments.
- 12.41 Where *gas work is being* undertaken pursuant to a *mechanical permit* issued to a licensed gas contractor, the *District's* mechanical inspectors will provide random spot inspections only.

PART 13 ELECTRICAL PERMITS

Local Safety Manager and Local Safety Officers

- 13.1 The *District's* electrical inspectors are safety officers under the *Safety Standards Act* for the purpose of administering the *Electrical Safety Regulation* and have all of the powers of safety officers under said enactments.

Permits

- 13.2 Only those persons who may perform *electrical work* pursuant to the *Electrical Safety Regulation* may apply for an *electrical permit* under this bylaw.
- 13.3 An application for an *electrical permit* must be submitted together with the applicable fees prescribed in the Fees and Charges Bylaw 6481 in accordance with section 16.1 of this bylaw.
- 13.4 No *electrical permit* is required under this Bylaw for *electrical work* that may be done without a permit pursuant to the *Electrical Safety Regulation*.

PART 14 ENERGY STEP CODE

- 14.1 In relation to the conservation of energy and the reduction of greenhouse gas emissions, the District may reference and implement, in whole or in part, the *Energy Step Code*.
- 14.2 Effective July 1, 2018, any building classified as a Group D or Group E occupancy under the *Building Code* must be designed and constructed to meet the performance requirements specified in Step 1 of the *Energy Step Code*.
- 14.3 Effective July 1, 2018, any residential occupancy building regulated by Part 3 of the *Building Code* must be designed and constructed to meet the performance requirements specified in Step 2 of the *Energy Step Code*.
- 14.4 Effective July 1, 2018, any residential occupancy building regulated by Part 9 of the *Building Code*, must be designed and constructed to meet the performance requirements specified in Step 3 of the *Energy Step Code*.
- 14.5 Any residential occupancy building regulated by Part 3 or Part 9 of the *Building Code* which is located on property that has been re-zoned after December 15, 2017, must be designed and constructed to meet the performance requirements specified in Step 3 of the *Energy Step Code*.

PART 15

RADIO AMPLIFIER BYLAW

- 15.1 All applications for a *building permit* to which the Radio Amplifier Bylaw 8272 applies must comply with the requirements of that bylaw and required information must be submitted with the *building permit* application.

PART 16

FEES AND CHARGES

Permit Fees

- 16.1 In addition to any applicable fees and charges required under other bylaws, the *owner* must pay all applicable fees related to an application for any *permit* under this bylaw as prescribed in the Fees and Charges Bylaw 6481 and such fees must be paid as follows:
- 16.1.1 50% of the total applicable fees must be paid at the time of the *building permit* application; and
- 16.1.2 the full balance of the total applicable fees must be paid prior to issuance of the *permit*.

Inspection Fees

- 16.2 In addition to the permit fees required under section 16.1, the *owner* must also pay the *building review*, inspection, re-examination fees and other fees as prescribed in the Fees and Charges Bylaw 6481.

Fee Reduction where Letters of Assurance are Being Relied Upon

- 16.3 Where letters of assurance are being relied upon by the *District* pursuant to sections 4.48 or 4.50, the applicable *permit* fee will be reduced by 2.5%, up to a maximum reduction of \$500.00.

Refunds

- 16.4 No fee or part of a fee paid to the *District* may be refunded if *construction* of the *building* has started.
- 16.5 Except as otherwise provided in this bylaw, all fees and charges required by this bylaw are non-refundable.
- 16.6 If a valid and subsisting *permit* is cancelled at the request of the applicant, the *Chief Building Official* may issue a refund as follows:
- 16.6.1 for a *building permit*, a refund equal to that part of the fees paid at issuance of the *permit* in accordance with section 16.1.2 less an administration fee of 15% of that amount;
- 16.6.2 for an *electrical permit* or *mechanical permit*, a refund equal to the application fees for such *permit* less an administration fee of 15%,

provided that:

- 16.6.3 the *owner* has submitted a written request for a refund;
 - 16.6.4 the *Chief Building Official* has certified that *construction* of the work authorized by the *permit* has not been started;
 - 16.6.5 the *permit* has never been extended; and
 - 16.6.6 the *permit* has not expired.
- 16.7 If a valid and subsisting *electrical permit* or *mechanical permit* is cancelled at the request of the applicant, the *Chief Building Official* may refund the application fees for such *permit* less an administration fee of 15%.

PART 17 OFFENCES

Violations

- 17.1 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 shall be liable to the penalties hereby imposed and each day that such violation is permitted to exist shall constitute a separate offence.

Penalty

- 17.2 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 \$10,000.00 in addition to the costs of the prosecution.

Deemed Offence

- 17.3 An *owner* is deemed to have knowledge of and be liable under this bylaw in respect of any *construction* on the parcel the *owner* owns and any change in the use, *occupancy* or both of a *building* or *structure* or part of a *building* or *structure* on that parcel.
- 17.4 Nothing in section 17.3 affects:
- 17.4.1 the *District's* right to require and the *owner's* obligation to obtain a *permit*; and
 - 17.4.2 the obligation of the *owner* to comply with this bylaw.

Designation of Bylaw

- 17.5 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

- 17.6 *Building officials, bylaw enforcement officers, environmental protection officers 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

- 17.7 Pursuant to Section 264(1)(c) of the Community Charter, the words or expressions set forth below in Column 1 of the table below designate the offence committed under the bylaw section numbers appearing in Column 2 opposite the respective words or expressions.
- 17.8 Pursuant to Section 265(1)(a) of the Community Charter, the fine amount set forth below in Column 3 of the table below is the fine amount that corresponds to the words or expressions and section number set out in Columns 1 and 2 opposite the fine amount:

COLUMN 1	COLUMN 2	COLUMN 3
DESIGNATED EXPRESSION	SECTION	FINE
		\$
Failure to comply with order by Chief Building Official	4.4	200
Construct building without permit	4.7.1	300
Change use without permit	4.7.2	200
Change occupancy without permit	4.7.2	200
Install commercial cooking facility without permit	4.7.3	200
Install or modify fire alarm or sprinkler without permit	4.7.4	200
Move building without permit	4.7.5	250
Demolish building without permit	4.7.6	250
Occupy new building without permit	4.7.7	150
Install, construct, repair or alter fireplace or wood-burning appliance without permit	4.7.8	200
Perform mechanical work without permit	4.7.9	200
Perform electrical work without permit	4.7.10	200
Failure to comply with conditions of permit	4.10	100
Carry out work contrary to regulations	4.26	150
Obstruct entry of inspector	4.29.1	150
Failure to have plans available at site	4.29.2	100
Failure to post permit on site	4.29.3	100
Failure to ensure work complies with permit or regulations	4.29.4	100
Do work at variance with accepted plans	4.29.5	200
Failure to manage sediment or erosion	4.29.6	200
Failure to ensure catch basin fitted with sediment trap	4.29.7	200
Failure to pay costs for damage to District property	4.29.9	200
Failure to post signage with required information	4.29.10	200
Failure to post signage that meets requirements	4.30	100

COLUMN 1	COLUMN 2	COLUMN 3
DESIGNATED EXPRESSION	SECTION	FINE
Failure to notify re. change in registered professional	4.31	100
Failure to suspend work when registered professional terminated	4.32	150
Failure to notify re. change of ownership or address	4.33	100
Failure to uncover work completed without inspection	4.35	200
Cause damage to District property or works	4.36	150
Failure to provide pest control report	4.40	100
Failure to install required erosion and sediment controls during demolition	4.41	200
Failure to clear debris from demolition site	4.42.1	150
Failure to separate gypsum from other debris	4.42.2	150
Failure to back-fill demolition site	4.42.3	200
Failure to make demolition site level	4.42.4	100
Failure to make demolition site stable from erosion	4.42.5	200
Failure to leave demolition site in tidy condition	4.42.6	150
Failure by constructor to comply with Building Code	4.46	150
Failure to secure site after Stop Work Order Notice posted	4.66	200
Carry out unauthorized work after Stop Work Order Notice posted	4.67	300
Failure to leave Stop Work Order Notice posted	4.68	200
Failure to cease occupancy when Do Not Occupy Notice posted	4.70	200
Failure to fill in excavation	5.20	200
Failure to obtain building review	5.24.3	300
Failure to obtain building review prior to concealing work	5.27	200
Occupying building with changed classification where no occupancy permit	5.29	200
Occupy temporary building for more than 1 year	5.32	200
Failure to remove temporary building	5.32	150
Failure to provide sanitary facilities or required amenities	5.34	150
Failure to keep sanitary facility in sanitary condition	5.34	100
Construct or repair pool without permit	8.1	200
Failure to enclose pool, spa or hot tub	8.2	150
Failure to install self-latching gate to pool	8.3	150
Failure to have locking cover on spa or hot tub	8.4	150
Failure to maintain required fence, gate or cover for pool, spa or hot tub	8.5	150
Construct or repair retaining wall without permit	9.1	200
Failure to obtain or submit to District registered professional design or field review for retaining wall	9.2	150
Excavation steeper than permitted	9.3	200
Deposit of fill material steeper than permitted	9.4	200
Relocate building without building permit	10.1	250
Failure to display address number per requirements	11.1	100
Address numbers smaller than required	11.4	100

COLUMN 1	COLUMN 2	COLUMN 3
DESIGNATED EXPRESSION	SECTION	FINE
Failure to number floors as required	11.5.1	100
Failure to comply with suite numbering requirements by skipping numbers between adjacent floors	11.5.2	100
Failure to number suites in increasing numerical sequence and clockwise fashion	11.5.3	100
Failure to arrange plumbing to suit location of connection to public sewer	12.7.3	150
Failure to obtain mechanical inspection	12.9	150
Failure to request mechanical inspection	12.14	150
Failure to connect drainage to municipal storm drainage system	12.16	200
Permit material transitions upstream of main shut off valve within perimeter of building foundation	12.19	200
Failure to ensure sanitary and storm sewer connections fitted with District standard inspection chamber at or near property line	12.20	200
Permit corrugated, perforated and unperforated plastic pipe to convey storm water	12.21	200
Permit connection of subsoil drainage system to drywell or rock pit without professional report accepted by Chief Building Official	12.22	200
Failure to include dual or duplex pumps in new storm water pump installation	12.24.1	200
Failure to include high level alarm audible within the premises for new storm water pump installation	12.24.2	150
Failure to grant section 219 covenant for storm water pump	12.25	200
Failure to include high level alarm audible within the premises for new sanitary pump installation	12.27	150
Failure to sprinkler mercantile, industrial, assembly, institutional, business, personal service or residential occupancy building or building in Fire Limits Area as required	12.31	200
Failure to sprinkler residential building up to four stories in height as required	12.32	200
Failure to sprinkler one- or two-family residential occupancy as required	12.33	200
Person who is not authorized performing gas work	12.38	200
Person who is not authorized performing electrical work	13.2	200

PART 18

MISCELLANEOUS

Severability

- 18.1 If a section, subsection, paragraph, subparagraph or phrase of this bylaw is for any reason declared invalid by a Court of competent jurisdiction, the decision shall not affect the validity of the remaining portions of this bylaw.

References

- 18.2 Any reference to Bylaw 7353, 2003 in any other District Bylaw is hereby deleted and replaced with a reference to this Bylaw 8271, 2017.

Repeal

- 18.3 The District of North Vancouver Building Regulation Bylaw No. 7353, 2005 is repealed and all references in other District bylaws to District of North Vancouver Building Regulation Bylaw No. 7353 are hereby amended to refer to District of North Vancouver Construction Bylaw 8271, 2017.

- 18.4 The following bylaws are repealed:

18.4.1 The Electrical Bylaw No. 7464, 2004; and

18.4.2 The Gas Bylaw No. 7465, 2004.

Amendment of Other Bylaws

- 18.5 The *District's* Environmental Protection Bylaw 6515 is amended by inserting the following at the end of section 32:

The security taken pursuant to this section may also be used by the District in accordance with section 5.7 of the Construction Bylaw 8271, 2017 and the security deposit taken pursuant to section 5.7 of the Construction Bylaw 8271, 2017 may be used by the District for this section 32.

- 18.6 The *District's* Tree Protection Bylaw 7671, 2012 is amended by inserting the following at the end of section 19:

The security taken pursuant to this section may also be used by the District in accordance with section 5.7 of the Construction Bylaw 8271, 2017 and the security deposit taken pursuant to section 5.7 of the Construction Bylaw 8271, 2017 may be used by the District for this section 19.

Appendices

- 18.7 Schedules A to C are attached to and form part of this bylaw.

Citation

18.8 This bylaw may be cited for all purposes as the "**Construction Bylaw 8271, 2017**".

In Force

18.9 This bylaw comes into force December 15, 2017.

READ a first time

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

SCHEDULE A to BYLAW 8271 -VALUE OF WORK

Residential

Construction	\$/Sq.M	\$/Sq.Ft.
Crawlspace	430.60	40.00
Unfinished Basement	753.50	70.00
Main Floor	1,668.40	155.00
Upper Floor	1,507.00	140.00
Additional Floors	1,507.00	140.00
Basement or space finishing	645.80	60.00
Basement with secondary suite	753.50	70.00
Additions	120%	120%
Garages	699.70	65.00
Carports	430.60	40.00
Verandas/Covered decks	538.20	50.00
Sundeck	430.60	40.00
Carport infill to create garage	322.90	30.00
Garage/carport infill to create living area	484.40	45.00
Sundeck enclosure to create living area	807.30	75.00
Detached Garages	861.10	80.00

Demolition

Minor - less than or equal to 100 m² \$5000.00

Major - greater than 100 m² \$10,000.00

SCHEDULE B to BYLAW 8271 - Application to Existing Buildings

The level of upgrading required for an existing *building* that is non-compliant with the current *Building Code* is illustrated in the table below. The upgrading is based on the aggregate project value of all *building permits* issued over the previous 24-month period immediately preceding the date of application of a proposed *building permit*, including the value of the proposed project, divided by the assessed value of the building, expressed as a percentage.

For the purpose of applying the table below, when voluntary upgrades for fire alarm systems, sprinkler systems, exits, accessibility, seismic work and building envelop are performed along with other alterations, additions and changes of major occupancy in existing buildings, the applicant may deduct the value of this work from the aggregate value of the project costs.

When considering what is an acceptable level to upgrade existing structures the *Chief Building Official* will be guided by the following table.

Ratio of Project Costs to Assessed Value %	Item to be Upgraded	Location of Upgrading			Notes for Upgrading Work
		Project Area	Public Areas	Entire Building	
Up to 25%	Exits (*)	X			Number, capacity and fire separations
Over 25% and up to 50%	Including item above				
	Alarms/detectors	X	X		
	Emergency Lights	X	X		
	Exits			X	
	Exits Lights & Signs		X	X	
	Flame Spread Rating			X	
Over 50% and up to 100%	Including all items above				
	Access to exits and means of egress	X	X	X	
	Alarms/detectors			X	
	Emergency Lights			X	
	Fire Fighting Access and Water Supply			X	
	Floor assemblies & supports	X			
	Spatial Separation	X			
Over 100% and up to	Including all items above				

200%	Access to Exits			X	Structural survey (defined below)
	Building structure			X	
	Flame Spread Rating			X	
	Occupancy Separation			X	
	Standpipes and Sprinklers			X	
	Provisions for Section 3.7	X			
	Washrooms	X			
Over 200%	Including all items above				Structural analysis (defined below)
	Building Structure			X	
	Emergency Power & Lights			X	
	Floor assemblies & supports			X	
	High Rise requirements			X	
	Lightning Levels			X	
	Provisions for Section 3.7			X	
	Spatial Separation			X	
	STC requirements			X	
	Ventilation			X	
	Washrooms			X	

(*) to public street

Schedule B Definitions:

Structural Survey

- 1) When alterations to an existing building do not include an addition and when the total cost of the intended work exceeds 100% but does not exceed 200% of the actual value of the building as determined by the British Columbia Assessment Authority, a structural survey of the existing building may be provided by a registered structural engineer instead of a structural analysis.
- 2) The Structural Survey required by section 1) must:
 - (a) describe the condition of all structural members and connections;
 - (b) document evidence of deterioration from physical damage, fire, weather or neglect;
 - (c) document evidence of foundation settlement or failure;
 - (d) include an evaluation of the building's expected stability with respect to minimum

design loads, forces and effects;

- (e) include an evaluation of the building in conformance with the NRC publication "Guidelines for Seismic Evaluation of Existing Buildings" dated December 1992;
 - (f) document the condition of all flashings, rain gutters, down pipes, chimneys, ornamentation, parapets and appurtenances; and
 - (g) indicate the weather protection ability of the roof and exterior cladding, and the extent of impermeability of the below ground structure, where present.
- 3) Sealed drawings which detail the structural upgrading work required as a result of the survey carried out under section 2) must be provided to the *Chief Building Official* by the *owner*.
 - 4) All structural work referred to in section 3) must be completed prior to final inspection and occupancy.

Structural Analysis

- 1) A Structural Analysis of an existing *building* must be provided to the *Chief Building Official* by a registered structural *engineer* when:
 - (a) the total cost of the intended work exceeds 200% of the value of the *building* as determined by the British Columbia Assessment Authority; or
 - (b) the work includes an *addition* or *alteration* as determined by sections 3.5, 3.6 or 3.7 of this bylaw.
- 2) The Structural Analysis required by section 1) must:
 - (a) take into account the proposed *alterations* and the *building occupancy*;
 - (b) indicate the structural sufficiency of the *building* to safely resist all vertical and lateral loads, including wind and earthquake forces, and any construction loads that may be expected; and
 - (c) show the remedial works necessary to bring the *structure* up to the minimum standards required by Part 4 of the *Building Code*.
- 3) Sealed drawings which detail the structural upgrading work required as a result of the analysis carried out under section 2) must be provided to the *Chief Building Official* by the *owner*.
- 4) All structural work referred to in section 3) must be completed prior to final inspection and occupancy.

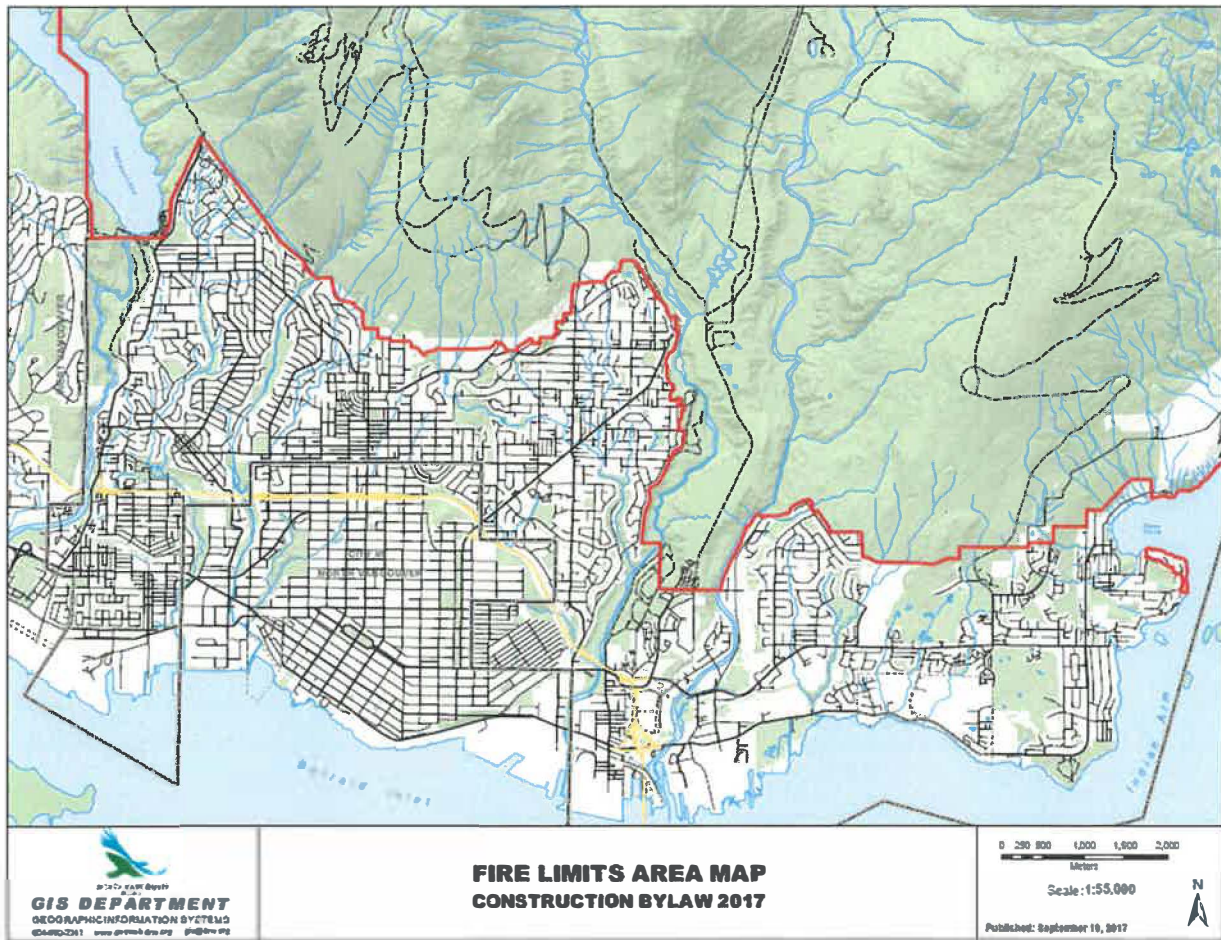
Voluntary Upgrade

Where voluntary upgrades for fire alarm systems, sprinkler systems, exits, seismic work and building envelope are performed, it is not the intent of this bylaw to require the *owner* to further upgrade the *building* as detailed in section 3.5 to 3.7 of this bylaw.

SCHEDULE C to BYLAW 8271 -FIRE LIMITS AREAS

The designated **Fire Limits Areas** are:

- 4700 and greater Blocks Prospect Rd
- 4900 greater Blocks Skyline
- 4300 and greater Blocks St Georges Ave
- 1500 and greater Blocks Lillooet Rd
- 4400 and greater Blocks Marion Rd
- 4500 and greater Blocks Lynn Valley Rd
- 2200 and greater Blocks Indian River Cres
- 2800 and greater Blocks Panorama Dr
- Eastridge Rd – even addresses only
- Any construction above the 1050ft elevation
- The areas designated as Woodlands, Sunshine and Cascades
- The area designated as Indian Arm, and
- All areas so designated on the attached plan



The Corporation of the District of North Vancouver

Bylaw 8272

A bylaw for the Regulation of Radio Amplification

WHEREAS a need exists for certain buildings and structures to have internal communications infrastructure systems which support the uninterrupted operation of the District's fire services, law enforcement and other emergency services radio communications essential to public safety and emergency response;

AND WHEREAS building design which incorporates multiple levels of underground and/or high-rise occupancy, or construction materials including concrete, low-emissivity glass, metal studs and flooring, metal-coated insulation and other attenuating materials all contribute to the interruption of emergency services communications networks;

AND WHEREAS radio support and amplification systems within buildings or structures can overcome the interruption of emergency communications networks and are vital to the delivery of public safety and emergency services in the District;

NOW THEREFORE the Council of the District of North Vancouver, in open meeting assembled, enacts as follows:

1. INTERPRETATION

Citation

1.1 This bylaw may be cited as "**RADIO AMPLIFICATION BYLAW 8272, 2017**".

Purpose and Application

1.2 It is not contemplated nor intended that this bylaw will provide, nor will this bylaw be interpreted as:

- (a) providing protection to owners, builders, constructors or any other persons from economic loss;
- (b) for ensuring the compliance by any owner, agent of an owner or any employees, builders, constructors or designers retained by an owner, with the requirements of this bylaw;
- (c) providing a warranty to any person of design or workmanship or materials with respect to any building, structure or part thereof for which a permit or occupancy certificate is issued under this bylaw;
- (d) providing a warranty or assurance to any person that construction or installation undertaken pursuant to this bylaw is free from any defects, whether patent or latent.

- 1.3 This bylaw applies to:
- (a) the design, construction and occupancy of new buildings and structures; and
 - (b) the alteration, reconstruction or renovation of existing buildings which add more than 20% in gross floor area to an existing building or structure.
- 1.4 This bylaw does not apply to:
- (a) any single and two family dwelling;
 - (b) any building or structure constructed of wood frame and without metal cladding;
 - (c) any building less than 5,000 square metres; or
 - (d) any building or structure less than 12 metres in height to the top of the roof.
- 1.5 The owner of any building or structure referred to in section 1.3 above which is constructed using reinforced concrete or structural steel, metal cladding, studs and/or flooring, reflective or low-emissivity glass, or other attenuating materials, and which:
- (a) has a gross floor area of more than 5,000 square metres;
 - (b) is over 12 metres in height to the top of the roof;
 - (c) has more than 1,000 metres of basement floor space; or
 - (d) has a basement more than 10 metres below the lowest street level of the building
- must install and maintain radio amplification systems which will function with the area-wide public safety communications service provider to support uninterrupted radio network communications for public safety and emergency responders within the District.

Definitions

- 1.6 In the absence of specific definition in this section 1.5, the words used in this bylaw have the meaning, if any, given to them by definition in the *Community Charter*, S.B.C. 2003 c. 26, as amended or replaced.
- 1.7 In this Bylaw, unless the context otherwise requires:
- “agent of an owner” includes a person, firm or corporation representing the owner by designation or contract and includes a hired tradesman or contractor for the owner;
- “building” means a structure or portion thereof, which is used or intended to be used for supporting or sheltering any use or occupancy;
- “Building Code” means the current edition of the British Columbia Building Code as adopted by the Minister responsible under provincial legislation, as amended, re-enacted or repealed and replaced from time to time;

"building official" means the Chief Building Official and the building inspectors, plan checkers, plumbing inspectors, mechanical inspectors and electrical inspectors designated or appointed by the District;

"Chief Building Official" means the person designated or appointed to that position by the District and any person named by the Council to act in place of the Chief Building Official;

"construct" or "construction" includes build, erect, install, repair, alter, add, enlarge, move, locate, relocate, reconstruct, with respect to a building or structure;

"Council" means the elected council of the District;

"District" means the Corporation of the District of North Vancouver;

"E-Comm" means Emergency Communications for Southwest British Columbia Incorporated and all the features and functions of the trunked public safety radio telecommunications systems, including microwave and VHF/UHF radio systems, provided by E-Comm to fire services, law enforcement and other emergency services;

"Fire Chief" means the person appointed to that position by the District and any person named by the Council to act in place of the Fire Chief;

"occupancy permit" means an occupancy permit issued by the District pursuant to the Construction Bylaw 8271, 2017;

"owner" means the person who is the owner as defined in the Building Code or an agent of that person;

"permit" means a permit issued to authorize construction regulated by the Construction Bylaw 8271, 2017, including a building permit, electrical permit, mechanical permit or occupancy permit as those terms are defined in the Construction Bylaw 8271, 2017.

"shadowed area" means an area that is subject to attenuation or obstruction of radio signals to or from the areas as a result of the interposition of all or any part of the building or structure in the radio signal path (line of sight) between the area and the transmitting/receiving site of the area-wide public safety communications service provider.

2. GENERAL PROHIBITIONS

Adequate Radio Coverage

- 2.1 Except as otherwise provided, no person shall erect, construct, change the use of or provide an addition of more than 20% in square footage to any building or structure or any part thereof, or cause the same to be done, which fails to support adequate radio coverage for the area-wide public safety communications service provider, including but not limited to fire services and law enforcement personnel.
- 2.2 For the purpose of section 2.1, "adequate radio coverage" means system access and "Delivered Audio Quality" (DAQ) of 3.4 or better (speech understandable with repetition rarely, some noise or distortion may be present) for communication between a portable (handheld) radio using a simple flexible whip antenna and both the area-wide public safety

communications service provider and the District radio communications network(s) transmitting/receiving sites:

- (a) within the building, for a minimum of 90% of the area of each floor of the building, including underground areas such as for parking;
- (b) within the building, for 100% of fire command centres, stairwells, protect-in-place areas, lobby refuge areas, equipment rooms and high-hazard areas; and
- (c) in areas that are in the Shadow Area of the building, in 90% of all areas where DAQ 3.4 could be achieved before the erection, construction or modification of the building or structure.

As an aid to system design, DAQ 3.4 has been measured by NTIA (U.S. Department of Commerce, National Telecommunications and Information Administration) to be approximately equivalent to 22 dB SINAD (Signal-to-Noise And Distortion ratio) for analogue signals modulated with a 1 kHz tone at 1.5 kHz deviation, and to 2% BER (Bit Error Rate) for P25 digital signals. It may also be approximately equivalent to a received signal level of -95 dBm in the absence of other signals that may affect the receiver. Good design should provide a margin of not less than 10 dB to allow for uncontrolled variables. Based on the foregoing, the design target for indoor coverage should be -85 dBm.

- 2.3 The radio frequency ranges to be supported are any frequencies used by the area-wide public safety communications service provider. If signal amplifiers are used, they must include filters that will protect the amplifiers from overload and the system from interference by out-of-band signals.
- 2.4 In the event that active amplification is required to meet the foregoing communication quality requirements in the building including Shadowed Area of the building, coordination with the public safety communications service provider and the District's communications network provider is required to ensure that its outdoor radio communication performance is not degraded. Where a decision must be made regarding the maintenance of either service provider's outdoor radio communication performance and restoration of signal strength in the building and Shadowed Area, the trade-off decision shall be made by the public safety communications service provider(s) and communicated to the Fire Chief and Officer in Charge of the North Vancouver RCMP detachment by the building owner.

Amplification Systems Allowed

- 2.5 Where a building or structure is required to provide an Amplification System to achieve adequate radio communication coverage, such system must include any of the following that are sufficient to achieve the required coverage:
 - (a) passive antenna systems or radiating cable systems;
 - (b) distributed antenna systems with uni-directional or bi-directional amplifiers (BDAs) as needed;
 - (c) voting receiver systems; or

- (d) any other system accepted and approved by the Fire Chief and Police Chief, as signified in writing on a case by case basis.
- 2.6 To prevent interference and operational interruption to the area wide public safety radio system, any amplification system installed under this bylaw must meet the guidelines and installation standards as described in the "Standard and Methods of Installation" as provided by the area-wide public safety communications service provider.
- 2.7 If any part of the installed Amplification System contains an electrically powered component, the system must be equipped to operate on an independent "Uninterruptible Power Supply" (UPS), using a battery and/or generator system, for a period of at least four (4) hours without external input or maintenance. All amplifiers and electronics required by the system must be protected by NEMA type 4 enclosures with physical security. The UPS must automatically charge the batteries in the presence of external power. The UPS must provide a monitored alarm signal to indicate failure of primary power, failure of the UPS system power output, and/or discharge of the batteries. Silencing of this alarm is the responsibility of the person maintaining the equipment.
- 2.8 A system summary alarm, consisting of a relay contact closure or equivalent, must be provided to the building fire panel via a hard wired connection.
- 2.9 Radio equipment must only be selected from the ISED Radio Equipment List and all active systems must be licensed by the federal regulator, Innovation, Science & Economic Development Canada (ISED), and must comply with the applicable Standard Radio Systems Plan (SRSP). Any license required must be renewed annually by the building owner and the cost of the licensing borne solely by the building owner.

3. PROCEDURES TO VERIFY AND MAINTAIN COMPLIANCE

- 3.1 Tests and measurements to verify and maintain compliance must be made at the sole expense of the building owner. The procedures used must be developed by the owner, subject to acceptance by the Fire Chief, and in compliance with the following guidelines:
 - (a) Acceptance Test Procedure**
 - 3.1.1 Acceptance tests and measurements must be performed after completion of installation of the Amplification System. Tests must be performed using radio frequencies assigned to the area-wide public safety communications service provider and the District, after proper coordination with an agent for that system and with the Fire Chief.
 - 3.1.2 If queuing occurs on the radio system while testing is underway, testing must be terminated immediately and resumed only when traffic levels on the system reach a level where queuing no longer occurs.
 - 3.1.3 For all tests, a pre-defined "Harvard" sentence should be used, such that the listeners are not aware of the sentence in advance on each test. A different recorded sentence should be used at each location.

- 3.1.4 Where the Shadowed Area or the floor plate area of a building is greater than 4,500 m², the area must be divided into a uniform grid of not more than 15 m on a side, or if the floor area is smaller than 4,500 m², it shall be divided into a uniform grid of approximately 20 equal areas to a minimum of 9 m², and measurements shall be taken in each grid area. The size of the grids must also be reduced, or the number of grids increased, upon recommendation of the Fire Chief or building official in areas where special construction or other obstruction may significantly affect communications. Tests must also be performed in fire command centres, stairwells, protect-in-place areas, lobby refuge areas, equipment rooms, and high-hazard areas.
- 3.1.5 Tests must first be made using a portable (handheld) radio of the type used by the District's Fire or Police service personnel, carried at chest level and using a simple flexible antenna, and will be deemed satisfactory if DAQ 3.4 or better (speech understandable with repetition only rarely, some noise or distortion may be present) can be achieved for a five-second test transmission in each direction. If system access is not reliable, or if DAQ 3.4 for five seconds cannot be achieved at any location, the test operator may move a maximum of 1.5m in any direction inside of the grid and repeat the test. If system access continues to be unreliable, or if DAQ 3.4 still cannot be achieved, or if there is any doubt about whether it can be achieved, a failure shall be recorded for that location.
- 3.1.6 A maximum of two (2) non-adjacent grid areas on a floor or in a shadow will be allowed to fail the test. In the event that three (3) or more areas on a floor or in a shadow fail the test, the floor or Shadowed Area may be divided into 40 approximately equal areas to a minimum of 4 m², and the tests repeated. In such event, a maximum of four (4) non-adjacent grid areas will be allowed to fail the test. If the Amplification System fails the 40-area test, the building owner shall have the system altered to meet the 90% coverage requirement, otherwise the Amplification System will not be accepted.
- 3.1.7 If the Amplification System fails to provide acceptable communication in any fire command centre, portion of a stairwell, protect-in-place areas, lobby refuge areas, equipment rooms, or high-hazard areas, the building owner must have the system altered to meet the 100% coverage requirement for these areas, otherwise the Amplification System will not be accepted.
- 3.1.8 Backup batteries and power supplies must be tested under full load by generating communication traffic automatically for a duration of at least one (1) hour. If within this period the battery shows any symptom of failure or impending failure, the test shall be continued for additional one-hour periods to determine the integrity of the battery. The battery must not fail within a four (4) hour continuous test period.
- 3.1.9 Backup batteries and power supplies must be tested under full load by generating communication traffic automatically for a duration of at least one (1) hour. If within this period the battery shows any symptom of failure or impending failure, the test shall be continued for additional one-hour periods to determine the integrity of the battery. The battery must not fail within a four (4) hour continuous test period.

3.1.10 The gain values of all amplifiers must be measured, using a service monitor that has been calibrated by a certified laboratory within the past 12 months, and the results must be kept on file by the building owner for future verification and monitoring of performance. The gain records file must have multiple back-ups and be stored in more than one location.

(b) Annual Tests

3.1.11 At least annually, the building owner must test all active components of the Amplification System, including but not limited to amplifiers, power supplies and back-up batteries, and must keep a record of such tests as part of the Fire Safety Plan for inspection by the Fire Chief or a building official. Amplifier gain must be adjusted if necessary to re-establish the gain recorded upon acceptance testing, and batteries and power supplies must be tested under full load by generating communication traffic for a period of at least one (1) hour to verify that they will function properly during a power outage.

3.1.12 Additional tests or inspection of records may be conducted from time to time by the Fire Service at the discretion of the Fire Chief, after giving reasonable notice to the building owner. If communications within the building or within the Shadowed Area appear to have degraded, or if the tests show unacceptable communications performance, the owner of the building or structure is required to remedy the problem and restore the Amplification System in a manner consistent with the original acceptance criteria, unless the owner can demonstrate conclusively that the degradation is solely the result of external changes not under his or her control.

(c) Qualifications of Testing Personnel and Test (Measurement) Equipment

3.1.13 Tests must be performed by or under the direct supervision of a professional engineer registered in the Province of British Columbia and qualified in radio communications. Test reports must bear the seal of the engineer.

3.1.14 Portable radios used must be of a size and type as may be in use by the District Fire and Police services at the time and programmed to operate on an analogue test channel and on a digital test band channel as designated by the Fire Chief. SINAD, BER and signal strength measurements must be made using appropriate instrumentation acceptable to the Fire Chief and/or Officer in Charge of the North Vancouver RCMP detachment. Radios and measurement equipment must have been tested for conformance to design specifications within twelve months prior to the conduct of Amplification System acceptance tests or re-tests.

4. PERMIT AND OCCUPANCY CONDITIONS

4.1 A permit or occupancy permit will not be issued for any building or structure until the requirements of this bylaw have been met to the satisfaction of the Fire Chief.

5. RIGHT OF ENTRY

- 5.1 Every owner or occupant of a building must, at all reasonable times, permit building official or Fire Chief (or their designates) to enter into and inspect any building or structure to ascertain whether the regulations and provisions of this bylaw are being obeyed and any person who refuses entry shall be in violation of this bylaw and shall be liable to the penalties hereby imposed.

6. DEEMED NUISANCE

- 6.1 The construction or erection of a building or structure which interferes with the District's fire services, law enforcement or other emergency related telecommunications networks shall constitute a nuisance because it threatens the health, safety and welfare of the residents and visitors to the District of North Vancouver. In addition to any other remedies or enforcement procedures provided herein, the District may seek an injunction to restrain such a nuisance.

7. OFFENCES AND PENALTIES

- 7.1 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 shall be liable to the penalties hereby imposed and each day that such violation is permitted to exist shall constitute a separate offence.

Enforcement by Ticket

- 7.2 This bylaw is designated pursuant to section 264 of the Community Charter as a bylaw that may be enforced by means of a ticket in the form prescribed.

Bylaw Enforcement Officers

- 7.3 Bylaw Enforcement Officers are designated to enforce this bylaw by means of a ticket pursuant to section 264 of the Community Charter.

Ticketing

- 7.4 The words or expressions listed below in the "Designated Expression" column are authorized to be used on a ticket issued pursuant to section 264 of the Community Charter to designate an offence against the respective section of this bylaw appearing opposite in the "Section" column. The amounts appearing in the "Fine" column below are the fines set pursuant to section 264 of the Community Charter for contravention of the respective section of this bylaw appearing opposite in the "Section" column.

COLUMN 1	COLUMN 2	COLUMN 3
DESIGNATED EXPRESSION	SECTION	FINE
		\$
Erect, construct, change use or add to building without adequate radio coverage	2.1	200
Failure to install amplification system the meets guidelines	2.6	200
Failure to permit entry of inspector	5.1	200

READ a first time

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

The Corporation of the District of North Vancouver

Bylaw 8274

A bylaw to amend the Bylaw Notice Enforcement Bylaw 7458, 2004

The Council for The Corporation of The District of North Vancouver enacts the following:

Citation

1. This bylaw may be cited as "Bylaw Notice Enforcement Bylaw 7458, 2004, Amendment Bylaw 8274, 2017 (Amendment 32)".

Amendments

2. Schedule A to Bylaw 7458 is amended by deleting all offences from the Building Regulation Bylaw No. 7353 (2003) section and substituting the following in the appropriate alphabetical location in the table:

Bylaw Section	Description	A1 Penalty Amount (\$)	A2 Discounted Penalty (within 14 days) (\$)	A3 Late Payment (after 28 days) (\$)	A4 Compliance Agreement Available	A5 Compliance Agreement Discount (\$)
The following fines apply to the contraventions below:						
Construction Bylaw 8271, 2017						
4.4	Failure to comply with order by Chief Building Official	200	150	300	NO	N/A
4.7.1	Construct building without permit	300	225	450	NO	N/A
4.7.2	Change use without permit	200	150	300	NO	N/A
4.7.2	Change occupancy without permit	200	150	300	NO	N/A
4.7.3	Install commercial cooking facility without permit	200	150	300	NO	N/A
4.7.4	Install or modify fire alarm or sprinkler without permit	200	150	300	NO	N/A
4.7.5	Move building without permit	250	190	375	NO	N/A
4.7.6	Demolish building without permit	250	190	375	NO	N/A
4.7.7	Occupy new building without permit	150	115	225	NO	N/A
4.7.8	Install, construct, repair or alter fireplace or wood-burning appliance without permit	200	150	300	NO	N/A
4.7.9	Carry out mechanical work without permit	200	150	300	NO	N/A
4.7.10	Carry out electrical work without permit	200	150	300	NO	N/A
4.10	Failure to comply with conditions of permit	100	75	150	NO	N/A
4.26	Carry out work contrary to regulations	150	115	225	NO	N/A
4.29.1	Failure to allow inspector to enter	150	115	225	NO	N/A
4.29.2	Failure to have plans available at site	100	75	150	NO	N/A
4.29.3	Failure to post permit on site	100	75	150	NO	N/A
4.29.4	Failure to ensure work complies with permit or regulations	100	75	150	NO	N/A
4.29.5	Failure to manage sediment or erosion	200	150	300	NO	N/A
4.29.6	Failure to ensure catch basin fitted with sediment trap	200	150	300	NO	N/A
4.29.8	Failure to pay costs for damage to District property	200	150	300	NO	N/A
4.29.9	Failure to post signage with required information	200	150	300	NO	N/A
4.30	Failure to post signage that meets requirements	100	75	150	NO	N/A

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 (\$)
4.31	Failure to notify re. change in registered professional	100	75	150	NO	N/A
4.32	Failure to suspend work when registered professional terminated	150	115	225	NO	N/A
4.33	Failure to notify re. change of ownership or address	100	75	150	NO	N/A
4.35	Failure to uncover work completed without inspection	200	150	300	NO	N/A
4.36	Cause damage to District property or works	150	115	225	NO	N/A
4.40	Failure to provide pest control report	100	75	150	NO	N/A
4.41	Failure to install required erosion and sediment controls during demolition	200	150	300	NO	N/A
4.42.1	Failure to clear debris from demolition site	150	115	225	NO	N/A
4.42.2	Failure to separate gypsum from other debris	150	115	225	NO	N/A
4.42.3	Failure to back-fill demolition site	200	150	300	NO	N/A
4.42.4	Failure to make demolition site level	100			NO	N/A
4.42.5	Failure to make demolition site stable from erosion	200	150	300	NO	N/A
4.42.6	Failure to leave demolition site in tidy condition	150	115	225	NO	N/A
4.46	Failure by constructor to comply with Building Code	150	115	225	NO	N/A
4.66	Failure to secure site after Stop Work Order Notice posted	200	150	300	NO	N/A
4.67	Carry out unauthorized work after Stop Work Order Notice posted	300			NO	N/A
4.68	Failure to leave Stop Work Order Notice posted	200	150	300	NO	N/A
4.70	Failure to cease occupancy when Do Not Occupy Notice posted	200	150	300	NO	N/A
5.20	Failure to fill in excavation	200	150	300	NO	N/A
5.24.3	Failure to obtain building review	200	150	300	NO	N/A
5.27	Failure to obtain building review prior to concealing work	200	150	300	NO	N/A
5.29	Occupying building with changed classification where no occupancy permit	200	150	300	NO	N/A
5.32	Occupy temporary building for more than 1 year	200	150	300	NO	N/A
5.32	Failure to remove temporary building	150	115	225	NO	N/A
5.34	Failure to provide sanitary facilities or required amenities	150	115	225	NO	N/A
5.34	Failure to keep sanitary facility in sanitary condition	100	75	150	NO	N/A
8.1	Construct or repair pool without permit	200	150	300	NO	N/A
8.2	Failure to enclose pool, spa or hot tub	150	115	225	NO	N/A
8.3	Failure to install self-latching gate to pool	150	115	225	NO	N/A
8.4	Failure to have locking cover on spa or hot tub	150	115	225	NO	N/A
8.5	Failure to maintain required fence, gate or cover for pool, spa or hot tub	150	115	225	NO	N/A
9.1	Construct or repair retaining wall without permit	200	150	300	NO	N/A
9.2	Failure to obtain or submit to District registered professional design or field review for retaining wall	150	115	225	NO	N/A
9.3	Excavation steeper than permitted	200	150	300	NO	N/A
9.4	Deposit of fill material steeper than permitted	200	150	300	NO	N/A

Bylaw Section	Description	A1	A2	A3	A4	A5
	The following fines apply to the contraventions below:	Penalty Amount (\$)	Discounted Penalty (within 14 days) (\$)	Late Payment (after 28 days) (\$)	Compliance Agreement Available	Compliance Agreement Discount (\$)
10.1	Relocate building without building permit	250	190	375	NO	N/A
11.1	Failure to display address number per requirements	100	75	150	NO	N/A
11.4	Address numbers smaller than required	100	75	150	NO	N/A
11.5.1	Failure to number floors as required	100	75	150		
11.5.2	Failure to comply with suite numbering requirements by skipping numbers between adjacent floors	100	75	150	NO	N/A
11.5.3	Failure to number suites in increasing numerical sequence and clockwise fashion	100	75	150	NO	N/A
12.7.3	Failure to arrange plumbing to suit location of connection to public sewer	150	115	225	NO	N/A
12.9	Failure to obtain mechanical inspection	150	115	225	NO	N/A
12.14	Failure to request mechanical inspection	150	115	225	NO	N/A
12.16	Failure to connect drainage to municipal storm drainage system	200	150	300	NO	N/A
12.19	Permit material transitions upstream of main shut off valve within perimeter of building foundation	200	150	300	NO	N/A
12.20	Failure to ensure sanitary and storm sewer connections fitted with District standard inspection chamber at or near property line	200	150	300	NO	N/A
12.21	Permit corrugated, perforated and unperforated plastic pipe to convey storm water	200	150	300	NO	N/A
12.22	Permit connection of subsoil drainage system to drywell or rock pit without professional report accepted by Chief Building Official	200	150	300	NO	N/A
12.24.1	Failure to include dual or duplex pumps in new storm water pump installation	200	150	300	NO	N/A
12.24.2	Failure to include high level alarm audible within the premises for new storm water pump installation	150	115	225	NO	N/A
12.25	Failure to grant section 219 covenant for storm water pump	200	150	300	NO	N/A
12.27	Failure to include high level alarm audible within the premises for new sanitary pump installation	150	115	225	NO	N/A
12.31	Failure to sprinkler mercantile, industrial, assembly, institutional, business, personal service or residential occupancy building or building in Fire Limits Area as required	200	150	300	NO	N/A
12.32	Failure to sprinkler residential building up to four stories in height as required	200	150	300	NO	N/A
12.33	Failure to sprinkler one- or two-family residential occupancy as required	200	150	300	NO	N/A
12.38	Person who is not authorized performing gas work	200	150	300	NO	N/A
13.2	Person who is not authorized performing electrical work	200	150	300	NO	N/A

3. Schedule A to Bylaw 7458 is amended by adding, in alphabetical order, the following new section for offences against the Radio Amplifier Bylaw 8272:

Bylaw Section	Description	A1 Penalty Amount (\$)	A2 Discounted Penalty (within 14 days) (\$)	A3 Late Payment (after 28 days) (\$)	A4 Compliance Agreement Available	A5 Compliance Agreement Discount (\$)
The following fines apply to the contraventions below:						
Radio Amplification Bylaw 8272, 2017						
2.1	Erect, construct, change use or add to building without adequate radio coverage	200	150	300	NO	N/A
2.6	Failure to install amplification system that meets guidelines	200	150	300	NO	N/A
5.1	Failure to permit entry of inspector	200	150	300	NO	N/A

READ a first time

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

The Corporation of the District of North Vancouver

Bylaw 8273

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

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

1. Citation

This bylaw may be cited as "District of North Vancouver Rezoning Bylaw 1365 (Bylaw 8273)".

2. Amendments

The District of North Vancouver Zoning Bylaw 3210, 1965 is amended by:

- (a) deleting subsection (d) of section 4B88-5; and
- (b) deleting section 4C03 in its entirety;
- (c) deleting subsection (iii) of section 502.2.

READ a first time

PUBLIC HEARING held

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

The Corporation of the District of North Vancouver

CORPORATE POLICY MANUAL

Section:	Land Administration	8
Sub-Section:	General	3320
Title:	GREEN BUILDING POLICY – PRIVATE SECTOR DEVELOPMENTS	7

PREAMBLE

The District of North Vancouver has committed to bold leadership in sustainability as evident in the District's Vision Statement:

'By 2020, we will be recognized among the most sustainable communities in the world as demonstrated through our environmental stewardship, strong network of communities, a vibrant economy and community-driven growth and change'

The construction and operation of buildings take a toll on the natural environment throughout their entire lifecycle, including eventual demolition and disposition. Buildings also represent a significant contribution to community greenhouse gas emissions. In 2007, buildings in the District were estimated to contribute approximately 50% of the total community greenhouse gas emissions.

In 2010, the District established community greenhouse gas emission reduction targets of 8% by 2020, 13% by 2030 and 21% by 2050, over 2007 levels, to be achieved through land use and transportation, planning programs, waste reduction strategies, community engagement and, the development of higher performing, energy efficient buildings.

The District has taken action to address greenhouse gas emissions arising from commercial, industrial, multi-family and institutional buildings by adopting a Green Building Strategy including a requirement that all new multi-family, commercial, industrial and institutional buildings outperform the Model National Energy Code for Buildings by at least 33%.

Single family buildings form the largest part of the District's housing stock and have a significant impact on energy consumption and greenhouse gas emissions. Therefore, the Green Building Strategy will also encourage the construction of new single family buildings meeting higher energy efficiency standards and other green building measures.

REASON FOR POLICY

This policy is primarily intended to encourage a shift towards higher performing buildings which reduce energy consumption and greenhouse gas emissions. However, the District also wishes to promote the use of broader green building strategies to:

- encourage the development of buildings which reduce their overall impact on the environment through appropriate design, construction and on-going, efficient operation;
- reduce building construction and operating costs;
- create and maintain healthy and effective work places, homes, recreation spaces and educational buildings; and
- reduce the amount of construction and demolition waste sent to landfills.

APPLICATION

This Policy applies to all new commercial, industrial, multi-family, institutional and single family buildings;

1. Compliance with this Policy is **mandatory** for all applications involving Official Community Plan amendments and/or rezoning or subdivision for single family purposes.
2. Compliance with this Policy is **voluntary** for applications where only a development permit or building permit for new construction, are required.
3. Private sector projects on lands acquired from the District of North Vancouver by sale or lease shall, as a condition of the land transfer agreement, comply with Council Policy 2-3710-2 "Green Building Policy – Municipal Buildings" except where the scale of the project may warrant an exemption as determined by the Director of Corporate Services.

POLICIES

1. All applicants for new building, building addition or building renovation projects covered under this Policy shall complete either the Green Building Performance Commitment for Large Projects or for Single Family Homes and submit the signed commitment with their application.
2. The building performance baseline is either:
 - LEED – NC or CS (2009) 'Gold' + a minimum of 6-8 points depending upon whether the project is New Construction or Core and Shell, or
 - A minimum energy performance of EnerGuide 80.
3. Applicants are encouraged to incorporate an Integrated Design Process during the initial design phase to identify opportunities to maximize energy efficiency without compromising other elements of the building.
4. Green building incentives will be considered commensurate with the level of performance to which applicants commit.
5. As it is not only the design and construction of buildings which determine performance, but its ongoing use, all building projects covered under this Policy shall be operated and maintained to ensure that they continue to perform as designed and commissioned.
6. This Policy will be reviewed and amended as required to ensure it remains current with respect to the B.C. Building Code, building practices and applicable rating system metrics.

EXEMPTIONS:

This policy does not apply to:

- renovation of designated heritage buildings, although, architects and designers are encouraged to incorporate appropriate green building measures provided that the heritage aspects of buildings are maintained.

AUTHORITY TO ACT

Delegated to Staff

Approval Date:	November 15, 2010	Approved by:	Regular Council
1. Amendment Date:	November 14, 2016	Approved by:	Council
2. Amendment Date:		Approved by:	
3. Amendment Date:		Approved by:	

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The Corporation of the District of North Vancouver

Bylaw 8273

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

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2. Amendments

The District of North Vancouver Zoning Bylaw 3210, 1965 is amended by:

- (a) deleting subsection (d) of section 4B88-5; and
- (b) deleting section 4C03 in its entirety;
- (c) deleting subsection (iii) of section 502.2.

READ a first time November 6th, 2017

PUBLIC HEARING held

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

PUBLIC HEARINGS

Tuesday, November 21, 2017, at 7 pm

District of North Vancouver Municipal Hall
355 West Queens Road, North Vancouver, BC

Two public hearings will occur consecutively in the order noted below.

Removal of Density Bonus for Energy Performance Provisions from the Zoning Bylaw

What:

A Public Hearing for Bylaw 8273 that proposes to delete section 4C03 Density Bonus for Energy Performance and associated references from District of North Vancouver Zoning Bylaw 3210, 1965.

What changes?

The Zoning Bylaw currently permits a modest increase in floorspace for enhanced energy performance in buildings. The Provincial government has enacted the *Building Act* and BC Energy Step Code in an effort to standardize building regulations across the Province. As a result, local regulations that deal with matters addressed in the BC Building Code, such as the District's Density Bonus for Energy Performance contained in its Zoning Bylaw, will have no effect after December 15, 2017. This bylaw proposes to delete the Density Bonus for Energy Performance provisions from the Zoning Bylaw.

Who can I speak to?

If you have questions on the development proposal, please contact Brett Dwyer, Manager – Development Services, at 604-990-2247 or dwyerb@dnv.org

1923 Purcell Way & Capilano University Multi-Family & Student Housing

What:

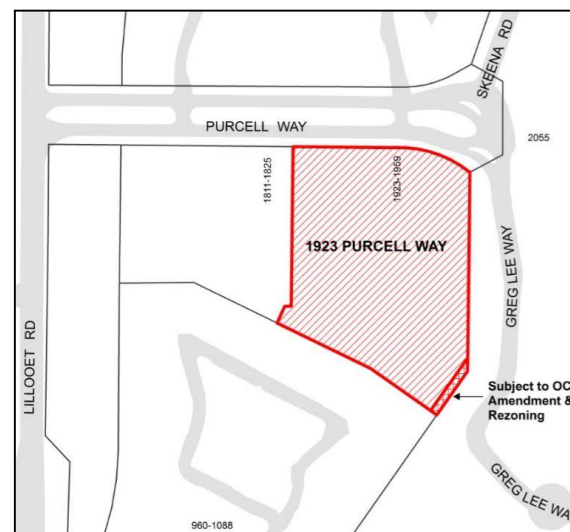
A Public Hearing for Bylaws 8262 and 8263, proposed amendments to the Official Community Plan and Zoning Bylaw, to permit the development of multi-family and student housing.

What changes?

Bylaw 8262 proposes to amend the OCP land use designation of the small portion of 1923 Purcell Way identified in the drawing below from Residential Level 5: Low Density Apartment (RES5) to Institutional. Bylaw 8263 proposes to amend the District's Zoning Bylaw by creating a new Comprehensive Development Zone 109 (CD109) and rezone 1923 Purcell Way from Low Rise Residential Zone 1 (RL1) to Comprehensive Development Zone 109 (CD109). The CD109 Zone addresses use, density, amenities, setbacks, site coverage, building height, landscaping and parking. Bylaw 8263 also proposes to rezone the small portion of 1923 Purcell Way identified in the drawing below to Public Assembly (PA) to facilitate the construction of a student housing project.

Who can I speak to?

If you have questions on the development proposal, please contact Tamsin Guppy, Development Planner, at 604-990-2391 or guppyt@dnv.org



Proposed*



*Provided by applicant for illustrative purposes only. The actual development, if approved, may differ.

How can I provide input?

We welcome your input Tuesday, November 21, 2017, at 7 pm. You can speak in person by signing up at the hearing, or you can provide a written submission to the Municipal Clerk at input@dnv.org or by mail to Municipal Clerk, District of North Vancouver, 355 West Queens Road, North Vancouver, BC, V7N 4N5, before the conclusion of the hearing.

Please note that Council may not receive further submissions from the public concerning this application after the conclusion of the public hearing.

Need more info?

Relevant background material and copies of the bylaws are available for review at the Municipal Clerk's Office or online at dnv.org/public_hearing from November 7 to November 21, 2017. Office hours are Monday to Friday 8 am to 4:30 pm, except statutory holidays.



DISTRICT OF NORTH VANCOUVER

CONSTRUCTION BYLAW 8271, 2017

The Corporation of the District of North Vancouver

Bylaw 8271

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The Corporation of the District of North Vancouver

Bylaw 8271

A bylaw for the Administration and Enforcement of the *Building Code*

WHEREAS the Province of British Columbia has enacted the British Columbia *Building Code* to govern standards in respect of the *construction*, alteration, repair and demolition of *buildings* and *structures* in municipalities and regional districts in the Province;

AND WHEREAS the Province by enactment has authorized the Council to regulate the *construction*, alteration, repair or demolition of *buildings* and *structures* by bylaw for the general public interest and the health, safety and protection of persons, property and the environment;

NOW THEREFORE the Council of the District of North Vancouver, in open meeting assembled, enacts as follows:

PART 1 INTERPRETATION

Citation

- 1.1 This bylaw may be cited as “**CONSTRUCTION BYLAW 8271, 2017**”.

Definitions

- 1.2 In the absence of specific definition in section 1.4, the words used in this bylaw have the meaning, if any, given to them by definition in the *Community Charter*, S.B.C. 2003 c. 26, as amended or replaced.
- 1.3 In this bylaw the following words and terms have the meanings set out in Section 1.4.1.2 of the *Building Code* as of the date of the adoption of this bylaw: *assembly, building, building area, building height, business and personal services occupancy, care occupancy, constructor, coordinating registered professional, detention occupancy, excavation, field review, firewall, high hazard industrial occupancy, industrial occupancy, low hazard industrial occupancy, major occupancy, medium hazard industrial occupancy, mercantile occupancy, occupancy, private sewage disposal system, registered professional, residential occupancy and unsafe condition*.
- 1.4 In this bylaw:
- addition* means any *alteration* to a *building* which will increase the total aggregate floor area or the *building height*;
- alteration* means any change, repair or modification of the *construction* or arrangement of any *building* or *structure* or to an *occupancy* regulated by this bylaw;

Approving Officer means the person appointed by the *Council* as the Approving Officer under the *Land Title Act* and includes his or her deputy;

architect means a person who is a member in good standing of The Architectural Institute of British Columbia pursuant to the *Architects Act*, RSBC 1996, c. 17, as amended or replaced from time to time;

assessed value means the value of the property determined by the BC Assessment Authority pursuant to the *Assessment Act*, RSBC 1996, c. 20, as amended or replaced from time to time;

Building Code means the current edition of the *British Columbia Building Code* as adopted by the Minister responsible under provincial legislation, as amended or replaced from time to time;

building official means the *Chief Building Official* and the building inspectors, plan checkers, plumbing inspectors, mechanical inspectors and electrical inspectors designated or appointed by the *District*;

building permit means a *permit* issued under Parts 5, 8, 9 or 10 of this bylaw;

building review means an audit check by a *building official* of representative elements of a *building* or *structure* prior to or under *construction* for the purposes of the *health and safety aspect of the work*;

bylaw enforcement officer means the person(s) appointed by the *District* whose duties include enforcing and carrying out the provisions of this bylaw;

Chief Building Official means the Manager Development Services or a person designated in writing by the Manager Development Services to act in his/her place and is the “building inspector” under the *Community Charter*;

Community Charter means the *Community Charter*, SBC 2003, c. 26, as amended or replaced from time to time;

complex building means:

- (a) all *buildings* used for *major occupancies* classified as:
 - (i) *assembly occupancies*,
 - (ii) *care or detention occupancies*, or
 - (iii) *high hazard industrial occupancies*, or
- (b) all *buildings* exceeding 600 square meters in *building area* or exceeding three storeys in *building height* used for *major occupancies* classified as:

- (i) *residential occupancies,*
- (ii) *business and personal services occupancies,*
- (iii) *mercantile occupancies, or*
- (iv) *medium and low hazard industrial occupancies;*

construct or construction includes build, erect, install, repair, alter, add, enlarge, move, locate, relocate, reconstruct, demolish, remove, excavate or shore;

Council means the elected council of the *District*;

demolition permit means a *permit* authorizing the demolition of a *building* subject to the terms and conditions specified in sections 4.39 of this bylaw;

designer means the *person* responsible for design and, unless the requirement is waived under an enforcement policy of the Council, if required under this bylaw or the *Building Code* must be an *architect* or *engineer*;

development permit means a permit for development in an area designated as a development permit area by the *District's* Official Community Plan Bylaw 7900;

development permit area means an area designated as a development permit area by the *District's* Official Community Plan Bylaw 7900;

District means the Corporation of the District of North Vancouver;

Do Not Occupy Notice means a notice posted by a *building official* pursuant to section 4.69;

Electrical Code means the B.C. Electrical Code as defined in the *Electrical Safety Regulation*;

electrical permit means a *permit* issued under Part 13 of this bylaw;

Electrical Safety Regulation means the *Electrical Safety Regulation* (BC Reg. 104/2004) under the *Safety Standards Act*, as amended or replaced from time to time;

electrical work has the meaning prescribed in the *Electrical Safety Regulation*;

Energy Step Code means the British Columbia Energy Step Code established by the *Building Code* and as amended or replaced from time to time;

engineer means a person who is a professional engineer and/or geoscientist and member in good standing of The Association of Professional Engineers and Geoscientists of the Province of British Columbia pursuant to the *Engineers and Geoscientists Act*, RSBC 1996, c. 116, as amended or replaced from time to time;

Environmental Protection and Preservation Bylaw means the District's Environmental Protection and Preservation Bylaw No. 6515;

environmental protection officer means the person designated or appointed to that position by the *District* and includes a person designated in writing by the environmental protection officer to act in his/her place;

field safety representative has the meaning prescribed in the *Safety Standards General Regulation* (BC Reg. 105/2004) under the *Safety Standards Act*, as amended or replaced from time to time;

Gas Safety Regulation means the *Gas Safety Regulation* (BC Reg. 103/2004) under the *Safety Standards Act*, as amended or replaced from time to time;

gas work means regulated work in respect of gas equipment or a gas system for which the *District* is entitled to issue a *permit* under this bylaw and under the *Gas Safety Regulation*;

health and safety aspects of the work means design and construction regulated by Parts 3, 4, 7, 8, 9 and 10, of the building code;

heating system includes forced air duct and hydronic piping distribution systems;

Homeowner Protection Act means the *Homeowner Protection Act*, SBC 1998, c. 31, as amended or replaced from time to time;

licensed gas contractor has the meaning prescribed in the *Gas Safety Regulation*;

Local Government Act means the *Local Government Act*, RSC 2015, c. 1, as amended or replaced from time to time;

Master Requirements List means the *District's* list of requirements for the information, forms, and plans to be included in an application for a *permit* provided by the Building Department of the *District* and/or available on the *District's* website;

mechanical permit means a *permit* issued under Part 12 of this bylaw and includes an installation permit under the *Gas Safety Regulation*;

mechanical work includes work on *plumbing* and *heating systems* and any other work for which a *mechanical permit* is required under this bylaw and includes *gas work*, but does not include any mechanical work that is not specifically regulated under the *Building Code*;

Municipal Solicitor means the person designated or appointed to that position by the *District* and any *person* named by the *Council* to act in place of the *Municipal Solicitor*;

Natural Gas and Propane Code means the B.C. Natural Gas and Propane Code as defined in the *Gas Safety Regulation*;

occupancy permit means an occupancy permit issued by the *District* under section 5.29 to 5.30 of this bylaw;

owner means the person who is the *owner* as defined in the *Building Code* or an agent of that person;

permit means a permit under this bylaw, including a *building permit*, *electrical permit*, *mechanical permit* or *occupancy permit*;

plumbing includes all or any part of a drainage system, venting system, sanitary sewage system or water system, and includes fire sprinklers;

pool means a *structure* or depression used or intended to be used for swimming, bathing, wading or diving which is designed to contain water and has a depth exceeding 0.5 m;

professional design means the plans and supporting documents bearing the date, seal or stamp, and signature of a *registered professional*;

project means any construction operation for which a *permit* is required under this bylaw;

qualified person has the meaning prescribed in section 20.112(1) of the *Occupation Health and Safety Regulation*, BC Reg 296/97, as amended or replaced from time to time;

registered professional means an *architect* or an *engineer*;

retaining wall means a wall, or a series of walls, constructed for the purpose of supporting or confining earth, water or other material and restraining it from moving, which:

- (a) exceeds 1.22 m (4 ft) in height above the lesser of natural or finished grade; or
- (b) in the case of a series of walls, if any of the walls extend above a line commencing 1.22 metres above the lesser of natural or finished grade at the base of any of the walls and projected at an angle of one linear unit vertically to one unit horizontally;

Safety Standards Act means the *Safety Standards Act*, SBC 2003, c. 39, as amended or replaced from time to time;

security deposit means the amount to be deposited with District in accordance with section 5.7;

Servicing Agreement has the meaning prescribed in the Development Servicing Bylaw;

simple building means a *building* of three storeys or less in *building height*, having a *building area* not exceeding 600 square meters and used for *major occupancies* classified as:

- (a) *residential occupancies*;
- (b) *business and personal services occupancies*;
- (c) *mercantile occupancies*; or
- (d) *medium and low hazard industrial occupancies*;

Stop Work Order Notice means the notice in a form prescribed by the *Chief Building Official* directing that work be immediately suspended pursuant to section 4.63 or 4.64;

structure means any construction or portion thereof of any kind, whether fixed to, supported by, or sunk into land or water;

temporary building includes a sales office, construction office or a *structure* in which tools are stored during construction of a *building* or other *structure*;

Tree Protection Bylaw means the District's Tree Protection Bylaw No. 7671;

value of the work means the amount calculated as follows:

- (a) for construction of a *building* containing a *residential occupancy* that is served by only one stove, or two stoves if permitted as an auxiliary and secondary *residential occupancy*, the greater of:
 - (i) the declared value of the work, or
 - (ii) the value calculated using Schedule A; or
- (b) for all other construction, the greater of:
 - (i) the declared value of the work, or
 - (ii) the value calculated using a method stipulated in the "Marshall Valuation Service" or "RS Means".

Zoning Bylaw means the *District's* Zoning Bylaw No. 3210.

Administrative Directions

- 1.5 Words defining the authority of a *building official* are to be construed as internal administrative directions and not as creating a duty on a *building official*.

Abbreviations

- 1.6 The abbreviations of words and phrases in this bylaw have the meanings assigned to them by the *Building Code*.

PART 2 PURPOSE OF BYLAW

- 2.1 This bylaw is enacted for the purpose of regulating construction within the District of North Vancouver in the general public interest. The activities undertaken by or on behalf of the *District* under this bylaw are for the sole purpose of providing a limited and interim spot checking function for reasons of the health, safety and protection of persons, property and the environment. This bylaw and the acceptance or review of plans, drawings, specifications and supporting documents, *building reviews* or inspections made by or on behalf of the *District* do not:
- 2.1.1 constitute a representation, warranty, assurance or statement that any work undertaken pursuant to *permits* issued by the *District*.

- (a) is free from latent, or any, defects;
 - (b) complies with the *Building Code*, this bylaw or any other applicable standards or enactments; or
 - (c) meets any standards in respect of design, materials or workmanship;
 - 2.1.2 in any way relieve the *owner* or his or her representatives from full and sole responsibility to perform the work in strict accordance with the *Building Code*, the *Gas Safety Regulation*, the *Electrical Safety Regulation*, this bylaw, other *District* bylaws and any other applicable enactments respecting safety;
 - 2.1.3 protect *owners*, *owner/builders* or *constructors* from economic loss;
- and no person may rely on this bylaw or any of those acts as establishing compliance with the *Building Code*, this bylaw or any standard of construction.
- 2.2 This bylaw is to be interpreted in accordance with the purposes set out in section 2.1, notwithstanding any other provision in this bylaw.

PART 3 APPLICATION

Application

- 3.1 Notwithstanding the issuance of a *permit* under this bylaw, an *owner* must comply with all applicable enactments, including the *Zoning Bylaw*, the *Environmental Protection and Preservation Bylaw*, the *Tree Protection Bylaw* and any applicable development *permit area* requirements.
- 3.2 This bylaw applies to:
 - 3.2.1 the design, *construction* and *occupancy* of new *buildings* and *structures*;
 - 3.2.2 the alteration, reconstruction, demolition, removal, relocation and *occupancy* of existing *buildings* and *structures*; and
 - 3.2.3 existing *buildings* and *structures* in the circumstances set out in sections 3.4 to 3.7.
- 3.3 This bylaw does not apply to:
 - 3.3.1 *buildings* and *structures* exempted by Part I of the *Building Code* except as expressly provided herein;
 - 3.3.2 a fence permitted to be *constructed* under the *Zoning Bylaw*, except as provided for in Part 8 - Pools;
 - 3.3.3 paving;
 - 3.3.4 a retaining *structure* that is not a *retaining wall*;

- 3.3.5 an accessory *building* with a floor area less than 10 square metres or a trellis, arbour or other such landscape feature on a parcel zoned for single family residential uses under the *Zoning Bylaw*;
- 3.3.6 non-structural repair and maintenance of lawfully-conforming *structures* on a parcel zoned for single-family residential use under the *Zoning Bylaw*;
- 3.3.7 the clearing of stoppages or the repairing of leaks in pipes, valves or fixtures, or the replacement of tubs, showers, toilets, lavatories or sinks if the work does not involve or require the rearrangement of valves, pipes or fixtures or hot water tanks.
- 3.3.8 electrical work to which the *Electrical Safety Regulation* does not apply;
- 3.3.9 *gas work* to which the *Gas Safety Regulation* does not apply.

Limited Application to Existing *Buildings*

- 3.4 If an application is made for a *building permit* to re-construct an existing *building* or a *structure* that is damaged or destroyed by fire, decay, storm, earthquake or otherwise to the extent of 150 percent or more of its *assessed value* of the improvements, as determined by the *building official*, then the entire *building* or *structure*, including those portions that are not damaged or destroyed, must comply with this bylaw and all other applicable District bylaws as if the entire *building* or *structure* were a new *building* or *structure*.
- 3.5 If an application is made for a *building permit* for an *addition* or *alteration* to an existing *building*, other than a single family residential *building*, the balance of the *building* must be upgraded to a level consistent with Schedule B.
- 3.6 If an *alteration* is made to an existing *building*:
 - 3.6.1 the *alteration* must comply with this bylaw and the *building code*; and
 - 3.6.2 the *building* must be upgraded to a level consistent with Schedule B.
- 3.7 If an *alteration* is limited to a suite intended for a Group A Division 2, D, E or F2 *occupancy* under the *Building Code* and if the *occupancy* load for that suite exceeds 60 persons, the suite area and its means of egress must be upgraded to a level consistent with Schedule B and:
 - 3.7.1 materials approved for one-hour fire resistive *construction* must be installed on the suite side of the suite separation, or
 - 3.7.2 the *building* must either have been *constructed* or upgraded to a level consistent with Schedule B within the last 20 years.

PART 4

ADMINISTRATION AND POWERS, ROLES AND RESPONSIBILITIES

Local Safety Manager

- 4.1 The *Chief Building Official* is the local safety manager under the *Safety Standards Act* and associated regulations and has all of the powers of a local safety manager under said enactments.

Powers

- 4.2 The *Chief Building Official* may:
- 4.2.1 administer this bylaw;
 - 4.2.2 establish the form and content of application forms and other documents, plans or forms to be submitted as part of an application for a *permit*;
 - 4.2.3 establish the form and content of the Master Requirements List;
 - 4.2.4 establish the terms and conditions of obtaining and continuing to hold a *permit* pursuant to section 15 of the *Community Charter*;
 - 4.2.5 issue and revoke *permits* under this bylaw;
 - 4.2.6 withhold a *building permit* that conflicts with bylaws in preparation in accordance with section 463 of the *Local Government Act*;
 - 4.2.7 require an applicant for a *building permit* to provide certification by a qualified professional that the plans submitted with the *permit* application, or specified aspects of those plans, comply with the *Building Code* and other applicable enactments respecting safety;
 - 4.2.8 require an applicant for a *building permit* to establish whether a method or type of *construction* or material used in *construction* of a *building* or *structure* complies with the requirements of this bylaw and the *Building Code*;
 - 4.2.9 direct that tests of materials, equipment, devices, *construction* methods, structural assemblies or foundations be carried out, or that sufficient evidence or proof be submitted by the *owner*, at the *owner's* expense, where such evidence or proof is necessary to determine whether the material, equipment, device, *construction* or foundation condition complies with this bylaw and the *Building Code*;
 - 4.2.10 require an applicant for a *building permit* in relation to a *building* that was *constructed* prior to 1990 to provide a hazardous materials report and confirmation prepared by a *qualified person* in accordance with section 20.112 of the *Occupation Health and Safety Regulation*, BC Reg 296/97, as amended or replaced from time to time;
 - 4.2.11 waive, in whole or in part, the requirements for a site plan, if the *building permit* is in relation to the repair or *alteration* of an existing *building* or *structure*;

- 4.2.12 waive the requirement for a *building review* under section 5.24 of this bylaw based on a risk-based analysis and evaluation of the performance history of the *constructor* carrying out the relevant work and the risk associated with the specific *building review* and provided that *building reviews* in respect of foundation and footing forms, framing or final *building review* may not be waived; and
- 4.2.13 designate and alter the numbering of *buildings*.
- 4.3 The *Chief Building Official* may order the correction of any work that is being or has been done in contravention of this bylaw or any other bylaw of the *District* and, without limiting the generality of the foregoing, the *Chief Building Official* may order:
 - 4.3.1 a *person* who contravenes any provision of this bylaw to comply with the provision and specify the time within which the work must be completed;
 - 4.3.2 an *owner* to have work inspected by a *building official* prior to covering;
 - 4.3.3 an *owner* to uncover any work that has been covered without *building review* contrary to this bylaw or an order issued by the *Chief Building Official*;
 - 4.3.4 a stop work order under sections 4.63 and 4.64;
 - 4.3.5 the removal of any *building, structure* or part of them *constructed* in contravention of a provision of this bylaw;
 - 4.3.6 the cessation of any *occupancy* in contravention of this bylaw;
 - 4.3.7 an *owner* to correct any unsafe conditions;
 - 4.3.8 an *owner* to correct any work that contravenes this bylaw, the *Building Code*, or any other *District* bylaws; and
 - 4.3.9 the removal of any unauthorized encroachment on *District* property.
- 4.4 Every person served with an order under section 4.3 must comply with the order within the time stated in the order.

Building Official

- 4.5 A *building official*:
 - 4.5.1 may enter any land, *building, structure* or premises in accordance with the provisions of section 16 of the *Community Charter* to ascertain whether the terms of this bylaw are being observed;
 - 4.5.2 may waive the requirement for a *building review* under section 5.24 of this bylaw based on a risk-based analysis and evaluation of the performance history of the person carrying out the relevant work and provided that *building reviews* in respect of foundation and footing forms, framing or final *building review* may not be waived;

Permit Required

- 4.6 A *permit* is required for any work regulated under this bylaw.
- 4.7 Without limiting section 4.6, a person must not do any of the following unless a *building official* has issued a valid and subsisting *permit* for the work or unless the work is specifically excluded from the ambit of this bylaw under a provision of this bylaw:
- 4.7.1 *construct*, repair or alter a *building* or *structure*, including a *temporary building* or *structure*;
 - 4.7.2 change the use, *occupancy*, or both, of a *building* or *structure* or part of a *building* or *structure*;
 - 4.7.3 install or modify a commercial cooking facility or ventilation system used in a process producing grease laden vapours;
 - 4.7.4 install or modify a fire alarm system or fire sprinkler system;
 - 4.7.5 move a *building* or *structure*;
 - 4.7.6 demolish a *building* or *structure*;
 - 4.7.7 occupy a new *building* or *structure*;
 - 4.7.8 install, *construct*, repair or alter a masonry fireplace or a wood burning appliance or chimney, unless the works are encompassed by another valid *building permit*;
 - 4.7.9 install, alter or repair plumbing or heating systems or performing other *mechanical work*; or
 - 4.7.10 perform *electrical work*.
- 4.8 Applications for a *permit* must be submitted in the form specified by the *Chief Building Official* and be submitted together with the Building Permit Fee specified in the Fees and Charges Bylaw 6481 in accordance with section 16.1 of this bylaw.
- 4.9 The Building Permit Fee will increase as prescribed in the Fees and Charges Bylaw 6481 if, contrary to this bylaw, *construction* is commenced before the *Chief Building Official* has issued a *permit*.
- 4.10 A person must not submit false or misleading information in relation to a *permit*, an application for a *permit* or *construction* undertaken under this bylaw.
- 4.11 A person must not erase, alter or modify plans and supporting documents after the same have been reviewed by a *building official* and a person must not erase, alter or modify plans and supporting documents which have been filed for reference with a *building official* after the *permit* has been issued.

Requirements of Permit

- 4.12 Every *owner* must comply with the requirements and conditions of this bylaw and any *permit* issued under this bylaw.

Lapse of Application

- 4.13 A *permit* application lapses 180 days from the date on which a complete application is received, unless the *permit* has not been issued because of delays caused solely by the *District*.

Expiration of Permit

- 4.14 A *permit* expires and the rights of the *owner* under the *permit* terminate if:
- 4.14.1 the work authorized by the *permit* is not commenced within 180 days from the date of issuance of the *permit*; or
 - 4.14.2 work is discontinued for a period of 180 days or more; or
 - 4.14.3 the work is not completed within two years of the date of issuance of the *permit*.

Permit Extension

- 4.15 A *building official* may extend the period of time set out under section 4.14 by up to six months if:
- 4.15.1 the work authorized by the *permit* has not been commenced or has been delayed or discontinued due to adverse weather, strikes, material or labour shortages, other similar hardship beyond the *owner's* control or if the size and complexity of the *construction* warrants;
 - 4.15.2 an application for the extension is made within 30 days of the date of *permit* expiration; and
 - 4.15.3 the *owner* has paid the permit extension fee prescribed in the Fees and Charges Bylaw 6481.

Refusal to Issue Permit

- 4.16 A *building official* may refuse to issue a *permit* where, in his or her opinion, the proposed work contravenes the *Building Code*, this bylaw or the provisions of any other bylaw of the *District*.

Permit Revocation

- 4.17 The *Chief Building Official* may revoke a *permit* if:
- 4.17.1 there is a violation of:

- (a) a condition under which the *permit* was issued;
 - (b) a requirement of the *Building Code, Electrical Code, Natural Gas and Propane Code*, or the *Safety Standards Act* and associated regulations;
 - (c) a requirement or prohibition under this bylaw or another bylaw of the *District*;
- 4.17.2 the *permit* was issued in error or based on false information;
- 4.17.3 the applicant has failed to obtain any permit required under another *District* bylaw;
or
- 4.17.4 a circumstance arises that creates a risk that was not known or did not exist at the time the *permit* was issued.

Permit Cancellation

- 4.18 An *owner*, or his or her *agent*, may cancel a *permit* application by delivering written notification of cancellation to the *Chief Building Official*.
- 4.19 If the *owner*, or his or her *agent*, submits changes to an application after a *permit* has been issued and the changes, in the opinion of the *Chief Building Official*, substantially alter the scope of the work, design or intent of the application in respect of which the *permit* was issued, the *Chief Building Official* may cancel the *permit*.

Permit Transfers

- 4.20 A *permit* or an application for a *permit* may not be transferred or assigned until the *owner* has notified the *Chief Building Official* in writing, the *owner* has paid the permit transfer fee prescribed in the Fees and Charges Bylaw 6481 and the *Chief Building Official* has authorized the transfer or assignment in writing. The transfer or assignment of a *permit* is not an extension of a *permit*.
- 4.21 Any *security* being held by the District in respect of a *permit* that has been transferred must either be returned to the person or entity that paid the *security deposit* or assigned to the transferee by way of an assignment agreement in a form satisfactory to the *Chief Building Official*.

Permit Correction

- 4.22 The review of plans and supporting documents and issuance of a *permit* do not prevent the *Chief Building Official* from subsequently requiring the correction of errors in the said plans and supporting documents or from prohibiting work from being carried on pursuant to the *permit* or from prohibiting occupancy of a *building* where the plans, the supporting documents, the work or the *occupancy* are in violation of this or another bylaw.

Conformity to *Building Code*

- 4.23 The *Chief Building Official* may require the *owner* to establish whether a method or type of *construction* or material used in the *construction* of a *building* or *structure* complies with the requirements and provisions of this bylaw and the *Building Code*.

Alternate Solutions

- 4.24 Alternate solutions will be considered by the *building official* in accordance with the provisions of the *Building Code*.

Tests

- 4.25 The *Chief Building Official* may direct that tests of materials, equipment, devices, *construction* methods, structural assemblies or *foundations* be made and reports, documentation and evidence be provided, all at the expense of the *owner*, to determine whether the material, equipment, device, *construction* or *foundation* condition complies with this bylaw and the *Building Code*.

OWNER'S AND CONSTRUCTOR'S RESPONSIBILITIES

Owner's Responsibility

- 4.26 It is the full and sole responsibility of the *owner* (and where the *owner* is acting through a representative, the *owner's* representative) to carry out the work in respect of which the *permit* was issued in compliance with the *Building Code*, the *Electrical Code*, the *Natural Gas and Propane Code*, this bylaw and all other applicable enactments respecting safety.

Owner's Undertakings

- 4.27 Despite the other provisions of this bylaw, the *Chief Building Official* may require as a condition of the issuance of a *permit* that the *owner* execute and submit to the *District* the *Owners' Responsibilities Form* in the form specified by the *Chief Building Official*.
- 4.28 Where the *Chief Building Official* determines that any work or excavation may directly, or indirectly, affect private property adjacent to the excavation site, the *owner* must provide:
- 4.28.1 an excavation and shoring plan, signed and sealed by a qualified professional; and/or
- 4.28.2 a report by a certified arborist,
- specifying measures to be taken to protect adjoining land, structures, walks, walls, services and trees.
- 4.29 Every *owner* to whom a *permit* is issued must:
- 4.29.1 not interfere with or obstruct the entry of a *building official* or other authorized official of the *District* onto or into any land, *building*, *structure* or premises at any reasonable time in order to administer and enforce this bylaw;

- 4.29.2 ensure that the *permit*, the designs, plans and specifications on which the issuance of the *permit* was based, all municipal inspection certificates, and all professional *field review* records are available at the site of the work with respect to which the *permit* was issued for the purpose of inspection by the *building official*;
- 4.29.3 ensure that the *permit* is posted conspicuously on the site of the work authorized by the *permit* during the entire execution of said work;
- 4.29.4 ensure that all work for which a *permit* is required is carried out in compliance with the *permit* and any supporting documents and with the *Building Code*, the *Electrical Code*, the *Natural Gas and Propane Code*, this bylaw, any other applicable bylaw of the *District*, the *Homeowner Protection Act*, *Safety Standards Act* and associated regulations and any other applicable enactments respecting safety;
- 4.29.5 not do any work that is at variance with the accepted designs, plans and specifications of a *building* or *structure* or of any other work for which a *permit* has been issued, unless that variance has been accepted in writing by a *building official*.
- 4.29.6 for any *building permit* that involves soil disturbance, excavation, or concrete works, ensure that sediment and erosion are managed on the site such that no material will enter any road, any neighbouring property or the *District* sewer system;
- 4.29.7 prior to commencing any *construction* under the *permit*, ensure that all catch basins capable of receiving surface run-off from the *construction* site are fitted with a catch basin specific design of sediment trap, which sediment traps must be maintained in accordance with the supplied manufacturer's specifications;
- 4.29.8 obtain all permits required under other *District* bylaws in relation to the proposed work;
- 4.29.9 pay the cost of repairs of any damage to public property or *District* works or services that occurs in the course of the work authorized by the *permit*; and
- 4.29.10 where required by the *Chief Building Official*, post a sign on the property to which the *permit* relates for the full duration of *construction*:
 - (a) the civic address of the property in a location that is visible from all adjoining streets;
 - (b) the contact information for the *owner* or the *constructor*, including contact information that is monitored 24 hours per day for issues arising after hours or emergencies; and
 - (c) the contact information for the *District*.
- 4.30 The sign required under section 4.29.10 must conform to the template provided by the *Chief Building Official* and meet the following requirements:

- (a) maximum height from grade of 3.0 metres;
- (b) maximum area of 3.0 square metres for Part 3 buildings and a maximum area of 1.5 square metres for single or two family dwellings;
- (c) script that is at least 5.00 cm high and is in a colour that contrasts with the background of the sign; and
- (d) set out the hours permitted for *construction* under the Noise Regulation Bylaw 7188 and any exemptions to the *construction* hours which may have been granted.

Notice

- 4.31 Every *owner* must give notice in writing to the *Chief Building Official* of any change in or termination of engagement of a *registered professional* during the course of the *construction* before the change or termination occurs.
- 4.32 If an *owner* terminates the engagement of a *registered professional*, the *owner* must suspend the work with respect to which the *registered professional* was engaged until the *owner* has engaged a new *registered professional* and has delivered to the *Chief Building Official* letters of assurance from the new *registered professional*.
- 4.33 It is the *owner's* responsibility to give notice in writing to the *Chief Building Official* immediately upon any change in ownership or change in the address of the *owner* which occurs prior to the issuance of an *occupancy permit*.
- 4.34 Every *owner* must give such other notice to the *Chief Building Official* as may be required by the *Chief Building Official* or by a provision of this bylaw.

Uncovering Work

- 4.35 When required by the *Chief Building Official*, every *owner* must uncover and replace at the *owner's* own expense any work that has been covered without inspection contrary to this bylaw.

Damage to Public Property

- 4.36 Every *owner* to whom a *permit* is issued must not cause damage to *District* property or municipal works during the work authorized by the *permit* and, in the event that such damage is caused, the owner is responsible for the cost to repair such damage.
- 4.37 If the *Chief Building Official* determines that *District* property or municipal works or services have been damaged, obstructed or fouled by debris, material or dirt in the course of work authorized by a *permit*, the *Chief Building Official* may deliver written notice to the *permit* holder to repair or clean up and if the required work is not completed within the time specified in the notice, the *District* may, but is not obligated to, carry out such work.

- 4.38 Every *owner* must pay to the *District*, within 30 days of receiving an invoice for same from the *District*, the cost of repairs undertaken by the *District* pursuant to section 4.37, failing which the *District* may, without notice, deduct the invoiced amount from the *owner's* *security deposit*.

Demolition

- 4.39 Every *owner* applying for a *demolition permit* must:
- 4.39.1 provide a vacancy date;
 - 4.39.2 provide written authorization from all *owners* to demolish;
 - 4.39.3 deposit with the *District* a *demolition security deposit* in the amount specified in section 5.7.1 of this bylaw as security for the repair, replacement, and clean up of any water and sewer works, roadways, curbs, gutters, sidewalks, boulevards and other *District* property damaged in the course of the work authorized by the *demolition permit* and for the clean-up of the land subject to the *permit* and/or completion of the works required under sections 4.39.4 [capping fees] and 4.42 [demolition clean up];
 - 4.39.4 pay the capping and inspection chamber installation fees prescribed in the Waterworks Bylaw and the Sewer Bylaw; and
 - 4.39.5 all municipal services must be capped and terminated at the property line in a *District* standard inspection chamber and valve arrangement.
- 4.40 The *Chief Building Official* may require as a condition of issuing a *demolition permit* that the *owner* provide a report from a commercial pest control service that a *building* or *structure* which is proposed to be demolished is free of rodent infestations and/or noxious weeds or pests.
- 4.41 Every *owner* must ensure that prior to carrying out demolition, all erosion and sediment controls as required pursuant to the Development Servicing Bylaw 8145 and the Environmental Protection and Preservation Bylaw 6515, as amended or replaced, have been installed.
- 4.42 Every *owner* must ensure that immediately upon completion of demolition:
- 4.42.1 all debris and fill is cleared from the site;
 - 4.42.2 all gypsum board and other recyclable materials from the *building* is separated from other debris and disposed of in accordance with applicable provincial regulations;
 - 4.42.3 the site is back-filled and all holes filled;
 - 4.42.4 the site is made level based on the grades indicated on the topographical survey required pursuant to section 5.6;
 - 4.42.5 the site is made stable from water or rainfall induced erosion; and

4.42.6 the site left in a neat and tidy condition.

- 4.43 The *Chief Building Official* may waive and/or relax the time for compliance with any of the conditions set out in section 4.42 provided that a *building permit* to construct a new *building* has been issued for the same property.
- 4.44 If the *building official* determines that the terms and conditions upon which a *demolition permit* is issued are not being complied with, the *building official* may deliver written notice requiring compliance within 24 hours and if the *building official* determines that non-compliance continues after 24 hour notice period, then the *District* may, but is not obligated to, enter on to the property to which the demolition permit relates and do or cause to be done through its contractors all such things as may be required to fulfil said conditions, including without limitation, completion of the demolition and securing the site, and for such purpose may without notice or limitation deduct from the demolition *security deposit* all costs and expenses incurred and payments and expenditures made by the *District*.
- 4.45 The *District* will return to the payee the demolition *security deposit* less all amounts deducted therefrom in accordance with section 4.39.3, upon completion of the demolition work contemplated in the *demolition permit* and upon the *building official* being satisfied that all damage caused by the applicant has been repaired and all conditions upon which the *demolition permit* was issued have been complied with and satisfied.

Obligations of Constructor

- 4.46 Every *constructor* must ensure that all requirements of the *Building Code*, this bylaw and other applicable enactments respecting *construction* safety are complied with.
- 4.47 Every *constructor* is responsible jointly and severally with the *owner* for all work undertaken to which this bylaw applies.

PROFESSIONAL DESIGN AND FIELD REVIEWS

Requirement for Registered Professional for Construction of Complex *Building*

- 4.48 The *owner* must provide *professional design* and plan certification and *field reviews* for the *construction* of a *complex building*, supported by letters of assurance in the form specified in the current *Building Code*, each signed by such *registered professionals* as the *Chief Building Official* or *Building Code* may require.
- 4.49 If the site conditions, size or complexity of a development or an aspect of a development warrant, the *Chief Building Official* may require a qualified professional to determine the bearing capacity by providing design and plan certification and field reviews supported by letters of assurance in form specified in the current *Building Code*.

Other Projects where Registered Professional is Required

- 4.50 The *owner* must provide *professional design* and *field reviews* supported by letters of assurance in the form of Schedules A (if applicable) and B referred to in section 2.6 of Part 2 of the *Building Code*, each signed by such *registered professionals* as the *Chief*

Building Official or *Building Code* may require, to prepare the *professional design* for and conduct *field reviews* of:

- 4.50.1 the construction or *alteration* of a *simple building constructed* on, or contiguous to, a *complex building*;
- 4.50.2 the *construction* or *alteration* of *foundations* and *excavations* in respect of *simple buildings* if required by the *Chief Building Official* in the circumstances set out in section 5.5;
- 4.50.3 the *construction* or *alteration* of structural, electrical, mechanical or fire suppression elements for *simple buildings* if required by the *Chief Building Official* in the circumstances set out in section 5.5;
- 4.50.4 the *construction* or *alteration* of any structural components of a *building* that fall within the scope of Part 4 of the *Building Code*;
- 4.50.5 the *construction* or *alteration* of a *retaining wall*;
- 4.50.6 the *construction* or *alteration* of a *building* that is designed with common egress systems for the occupants and requires the use of *firewalls* according to the *Building Code*;
- 4.50.7 the *construction* or *alteration* of the *building envelope* components of:
 - (a) all *buildings* under Part 3 of the *Building Code*,
 - (b) all residential *buildings* that contain more than two dwelling units, and
 - (c) all other *buildings* whose *building envelopes* do not comply with the prescriptive requirements of Part 9 of the *Building Code*;
- 4.50.8 *electrical work* in a complex building;
- 4.50.9 *mechanical work* in a complex building;
- 4.50.10 the installation of storm water pumps;
- 4.50.11 the installation of sanitary pumps where the pump serves an entire residence;
- 4.50.12 the installation of a fire sprinkler system, except for modifications to existing systems involving the relocation or addition of less than six sprinkler heads, in which case the requirement for *registered professional design* and *field review* may be waived by the *Chief Building Official*;
- 4.50.13 the *construction* or *alteration* of a *building* or *structure* on a parcel that the *Chief Building Official* believes is subject to or is likely to be subject to flooding, mud flows, debris flows, debris torrents, erosion, land slip, rock falls, subsidence or avalanche. For greater certainty, this requirement for *professional design* and a *field review* is in addition to a requirement under any other enactment for a report certified by a qualified professional that the parcel may be used safely for the use

intended;

- 4.50.14 any *project* where the *Chief Building Official* considers that the site conditions, size or complexity of or associated with the *project* warrant the provision of *professional design* and *field reviews*.
- 4.51 Sealed copies of the *professional design* and *letters of assurance* required by sections 4.48 and 4.50 must be submitted to the *building official* prior to issuance of a *building permit* for the work.
- 4.52 The requirement for *professional design* and *field review* may be waived by the *Chief Building Official* for work involving minor tenant improvements.
- 4.53 The *Chief Building Official* may require the *registered professional* carrying out the *professional design* and *field review* of a *building* envelope to provide evidence that he or she has experience and expertise in respect of the *professional design* and *field review* of *building* envelopes.
- 4.54 Where *professional design* is required pursuant to sections 4.48 or 4.50, the *owner* must give notice in writing to the *Chief Building Official* of any change in or termination of engagement of a *registered professional* during *construction* immediately when the change or termination occurs.
- 4.55 If an *owner* terminates the engagement of a *registered professional*, the *owner* must terminate the work until the *owner* has engaged a new *registered professional* and has delivered to the *Chief Building Official* letters of assurance.
- 4.56 Where an *owner* has provided a report by a *registered professional*, the *Chief Building Official* make direct that the report be peer reviewed by a qualified professional selected and retained by the *District*. The peer review will be completed at the *owner's* expense and the *owner* must pay the invoice for same within 30 days of the invoice date, If the invoice amount is not paid when due, the *Chief Building Official* may, at his/her discretion, issue a *Stop Work Order Notice*. The unpaid invoice amount may be deducted from the *security deposit*.
- 4.57 For all new single family *construction*, the *owner* must provide *professional design* and plan certification and *field reviews* for the building envelope, supported by letters of assurance in the form specified in the current *Building Code*.

Assurance of Field review

- 4.58 Not less than 48 hours prior to the coordinated preoccupancy site review for a *complex building* and not less than 48 hours prior to final inspection for a *simple building* or other *project* in circumstances where letters of assurance have been required in accordance with section 4.48 or 4.50, the *owner* must provide the *District* with letters of assurance in the form of Schedules C-A or C-B, as appropriate, referred to in section 2.6 of Part 2 of the *Building Code*.

Professional Liability Insurance

- 4.59 A *registered professional* who provides letters of assurance as required by this bylaw must provide proof of professional liability insurance to the *Chief Building Official* in the form specified by the *Chief Building Official*.

Professional Plan Certification

- 4.60 The letters of assurance provided pursuant to sections 4.48, 4.49, 4.50 or 4.57 are relied upon by the *District* and its *building officials* as certification that the *professional design* and plans to which the letters of assurance relate comply with the *Building Code*, the *Electrical Code*, the *Natural Gas and Propane Code* and other applicable enactments relating to safety.

Field reviews

- 4.61 If a *registered professional* provides letters of assurance in accordance with sections 4.48, 4.49, 4.50 or 4.57, the *District* will rely solely on *field reviews* undertaken by the *registered professional* and the letters of assurance submitted pursuant to this bylaw as assurance that the work authorized by the *permit* substantially conforms to the *design*, plans and specifications and that the work substantially complies with the *Building Code*, the *Electrical Code*, *Natural Gas and Propane Code*, this bylaw, any other applicable bylaw of the *District*, provisions of the *Homeowner Protection Act*, *Safety Standards Act* and associated regulations, or any other applicable enactments respecting safety.
- 4.62 Despite section 4.61, a *building official* may attend the site from time to time during the course of the work to ascertain that the *field reviews* are taking place and to monitor the *field reviews* undertaken by the *registered professionals*.

Stop Work Order

- 4.63 The *Chief Building Official* may direct the immediate suspension or correction of all or a portion of work to which this bylaw applies by attaching a *Stop Work Order Notice* on the premises on which the work is being done where the work is not being performed in accordance with the requirements of the *Building Code*, the *Electrical Code*, the *Natural Gas and Propane Code*, this bylaw, any other applicable bylaw of the *District*, provisions of the *Homeowner Protection Act*, *Safety Standards Act* and associated regulations, or any other applicable enactments respecting safety.
- 4.64 A *coordinating registered professional* may request, in writing, that the *Chief Building Official* order the immediate suspension or correction of all or a portion of work on a *building* or *structure* by attaching a *Stop Work Order Notice* on the premises on which the work is being done. The *Chief Building Official* will consider such a request and if not acted upon, will give reasons, in writing, to the *coordinating registered professional*.
- 4.65 If a *registered professional's* services are terminated, the *owner* must immediately stop any work that is subject to his or her *professional design* or *field review* and the *Chief Building Official* is deemed to have issued a *Stop Work Order Notice* under section 4.63.

- 4.66 The *owner* must immediately after posting a *Stop Work Order Notice* secure the *construction* and the lands and premises surrounding the *construction* in compliance with the safety requirements of every statute, regulation or order of the Province or of a provincial agency and of every applicable bylaw of the *District*.
- 4.67 No work other than the required remedial measures may be carried out on a parcel affected by the *Stop Work Order Notice* until the *Stop Work Order Notice* has been removed by the *Chief Building Official*.
- 4.68 The *Stop Work Order Notice* must remain posted on the premises until the required remedial measures have been completed and the *Chief Building Official* directs in writing that the notice may be removed.

Do Not Occupy Notice

- 4.69 If a person occupies a *building* or *structure* or part of a *building* or *structure* in contravention of section 4.7.2 of this bylaw a *building official* may post a *Do Not Occupy Notice* on the affected part of the *building* or *structure*.
- 4.70 If a notice is posted under section 4.69, the *owner* of the parcel on which a *Do Not Occupy Notice* has been posted and every other person must cease occupancy of the *building* or *structure* immediately and must refrain from further *occupancy* until all applicable provisions of the *Building Code* and this bylaw have been substantially complied with and the *Do Not Occupy Notice* has been rescinded in writing by a *building official*.

No Interference with Notices

- 4.71 A person must not reverse, alter, deface, cover, remove or in any way tamper with a *construction* site identification placard, *Stop Work Order Notice*, certificate, card or notice posted on or affixed to a *building* or *structure* pursuant to a provision of this bylaw unless authorized by the *Chief Building Official*.

PART 5 BUILDING PERMIT

Requirements before Applying for Building Permit

- 5.1 Prior to submitting an application for a *building permit*, the *owner* must satisfy the following requirements or conditions:
- 5.1.1 issuance of a development permit in an area designated by the *District's* official community plan as a development permit area, where required;
 - 5.1.2 compliance of the proposed *building* or *structure* with all *District* bylaws, except to the extent a variance of a bylaw is authorized by a development permit, development variance permit or order of the Board of Variance;
 - 5.1.3 signing by the *Approving Officer* of a subdivision plan that, once registered, would create the parcel on which the *building* or *structure* is proposed to be *constructed*;
 - 5.1.4 documentation to provide evidence to the *Chief Building Official* that the *person*

applying for the proposed *building permit* is the *owner* of the parcel that is the subject of the proposed *building permit* application or is the *agent* of the *owner*;

- 5.1.5 if the parcel that is the subject of the proposed *building permit* application is not, or is not intended to be, connected to the *District's* sewage disposal system, approval of an alternate *private sewage disposal system*;
- 5.1.6 if the parcel that is the subject of the proposed *building permit* application is not connected to the *District's* waterworks system, approval of an alternate water supply system.

Applications for Complex *Buildings*

- 5.2 An application for a *building permit* with respect to a *complex building* must include all of the applicable information, documents and plans specified in the Master Requirements List and:
 - 5.2.1 be accompanied by the *Owner's Responsibilities Form* and, where applicable, the *Authority to Represent the Owner Form*, in the forms specified by the *Chief Building Official*, signed by the *owner* or a signing officer if the *owner* is a corporation;
 - 5.2.2 include a copy of a title search made within 30 days of the date of the application;
 - 5.2.3 include the name and address of the *designer* of the *building* or *structure*; and
 - 5.2.4 include a *Building Code* compliance summary, including applicable edition of the *Building Code*, Part 3 or Part 9 designation, major occupancy classification(s) of the *building*, *building* area and height, number of streets the *building* faces, accessible entrances, work areas, washrooms and facilities.
- 5.3 In addition to the requirements of section 5.2, the following may be required to be submitted with a *building permit* application for the *construction* of a *complex building* if, in the opinion of a *building official*, the complexity of the proposed *building* or *structure* or siting circumstances warrant:
 - 5.3.1 site servicing drawings, including sufficient detail of off-site services to indicate locations at the property line, prepared and sealed by a *registered professional*, in accordance with the *District's* development servicing bylaw;
 - 5.3.2 section through the site showing grades, *buildings*, *structures*, parking areas and driveways;
 - 5.3.3 any other information required by the *building official* or the *Building Code* to establish compliance with this bylaw, the *Building Code* and other bylaws and enactments relating to the *building* or *structure*.

Applications for Simple Buildings

- 5.4 An application for a *building permit* for a *simple building* must include all of the applicable information, documents and plans specified in the Master Requirements List and:
- 5.4.1 the *Owner's Responsibilities Form* and, where applicable, the *Authority to Represent the Owner Form*, in the form specified by the *Chief Building Official*, signed by the *owner* or a signing officer if the *owner* is a corporation;
 - 5.4.2 a title search made within 30 days of the date of the application;
 - 5.4.3 the name and address of the *designer* of the *building* or *structure*;
 - 5.4.4 a foundation and excavation design for (i) components of new *simple buildings* greater than 46 m² and (ii) *additions* to *simple buildings* greater than 46 m² to *simple buildings* prepared by a *registered professional* in accordance with section 4.2 of Part 4 of the *Building Code*. This section 5.4.4 does not apply to garages, carports and garden *structures* located on land zoned for single family use. The requirements of this section 5.4.4 may be waived by the *Chief Building Official* if documentation, prepared and sealed by a *registered professional*, is provided assuring that the *professional design* of the foundation substantially complies with section 9.4.4 of Part 9 the *Building Code* and the foundation excavation substantially complies with section 9.12 of Part 9 of the *Building Code*;
 - 5.4.5 include a geotechnical report if the *Chief Building Official* determines that the site conditions so warrant;
 - 5.4.6 include letters of assurance as may be required pursuant to section 4.50 ;
- 5.5 In addition to the requirements of section 5.4, the *Chief Building Official* may require the following to be submitted with a *building permit* application for the *construction* of a *simple building* if the *project* involves two or more *buildings* which in the aggregate total more than 1000 square meters or two or more *buildings* that will contain four or more dwelling units:
- 5.5.1 site servicing drawings, including sufficient detail of off-site services to indicate locations at the property line, prepared and sealed by a *registered professional*, in accordance with the Development Servicing Bylaw 8145;
 - 5.5.2 a section through the site showing grades, *buildings*, *structures*, parking areas and driveways;
 - 5.5.3 a roof plan and roof height calculations;
 - 5.5.4 letters of assurance as required by section 4.50;
 - 5.5.5 any other information required by the *building official* or the *Building Code* to establish substantial compliance with this bylaw, the *Building Code* and other bylaws and enactments relating to the *building* or *structure*.

Survey

- 5.6 The *Chief Building Official* may order any *owner* to submit an up to date plan of survey prepared by a registered British Columbia land surveyor which contains sufficient information respecting the site and location of any *building*:
- 5.6.1 to establish, before *construction* begins, that all the provisions of this bylaw in relation to this information will be complied with;
 - 5.6.2 to verify, on completion of the *construction*, that:
 - (a) finished grade elevations and onsite drainage works have been completed in accordance with the *building permit* plans; and
 - (b) all provisions of this bylaw have been complied with;
 - 5.6.3 in relation to an existing *building*, when and as required by the *Chief Building Official*, to substantiate its location, size, including appendages whether above, at or below ground level, relative to the site or its relationship to neighbouring grades; and
 - 5.6.4 in relation to *construction* of a new *building* or addition to an existing *building*, prior to the placement of concrete for *foundations* and footings, including the elevations at proposed top of concrete on all *building* elevations and at all significant changes of elevation to substantiate its size, location and elevation,

and every person served with an order under this section must comply with the order.

Security Deposit

- 5.7 Except as provided in section 5.8, an applicant for a *building permit* must pay to the *District*, at the time of the application, *security deposits* in the following amounts in the form of cash or an irrevocable letter of credit in a form satisfactory to the *District*:
- 5.7.1 \$10,000 or 1.0 percent of the *value of the work*, whichever is greater, to a maximum of \$20,000 for each new single family residential dwelling or demolition authorized by the *permit*;
 - 5.7.2 \$2,500 or 1.0 percent of the *value of the work*, whichever is greater, to a maximum of \$5,000 for each *permit* for additions, renovations, alterations in a single family dwelling;
 - 5.7.3 1.0 percent of the *value of the work* up to a maximum of \$1,000 where the property to which the *permit* relates is not the subject of a form and character *development permit*;
 - 5.7.4 where the property to which the *building permit* relates is the subject of a form and character *development permit*, the security taken for landscaping under the *development permit* will serve as the security for the *building permit* and may be used by the District in accordance with section 5.10; and

5.7.5 1.0 percent of the *value of the work* where the property to which the *permit* relates does not fall within subsections 5.7.1 through 5.7.4.

5.8 Notwithstanding section 5.7, where an applicant for a *building permit* has multiple *permits* in progress, the *Chief Building Official* may, but is not obligated to, permit such applicant to post and maintain rolling *security deposit* amounts as set out in the table below to serve as the *security deposit* required in section 5.7 for any applicant which is named on the letter of credit, provided however that the *Chief Building Official* may revoke the approval under this section 5.8 where the applicant has a history of repeated or on-going non-compliance with construction-related *District* bylaws:

Number of Permits	Security Deposit Amount
Up to 10	\$50,000.00
11 to 20	\$80,000.00

5.9 Notwithstanding section 5.7, the *Chief Building Official* may waive the requirement to provide a *security deposit* where satisfied that (a) the *value of the work* is less than \$100,000.00 and (b) the likelihood of damage being caused to *District* infrastructure is low.

5.10 The *security deposit* may be used by the *District* to:

5.10.1 cover the costs borne by the *District* to:

- (a) maintain, restore or replace any public works or public lands which are destroyed, damaged or otherwise impaired in carrying out the work referred to in any *permit* held by the applicant, in accordance with sections 4.37 and 4.38;
- (b) cover the costs borne by the District to make the site safe if the *permit* holder abandons or fails to complete the work as designated on the *permit*;
- (c) clear any debris, material, dirt, chattels, or equipment which have accumulated on any road, lane, sidewalk, boulevard or other District property as a result of work carried out in connection with any *building permit* held by the applicant;
- (d) backfill the site and make the site level based on the grades indicated on the topographical survey submitted as part of the application for a *permit*;
- (e) install erosion and sediment controls;
- (f) install sod, sow seeds, or plant trees and/or vegetation;
- (g) make the site safe if the *permit* holder abandons or fails to complete the work as designated on the *permit*;
- (h) correct any damage to the environment that results as a consequence of a contravention of any condition or requirement in a *development permit*;

- 5.10.2 pay for a peer review required pursuant to section 4.56 where the *owner* has failed to pay;
 - 5.10.3 cover the District's administrative costs including, but not limited to, costs incurred investigating expired *permits*, renewing existing *permits*, re-inspection fees, legal costs or Land Title Office registration costs for notices filed against title;
 - 5.10.4 serve as the *security deposit* for a provisional *occupancy permit* when such a *permit* requires a security deposit; and
 - 5.10.5 serve as a *security deposit* for the purpose of effecting compliance with any condition under which the *permit* was issued.
- 5.11 Where the *District* has drawn down the *security deposit* in accordance with section 5.10, the *building permit* applicant must within 10 days of notice from the *District* restore the *security deposit* to the amount originally posted.
- 5.12 The security taken pursuant to the Environmental Protection and Preservation Bylaw 6515 and the Tree Protection Bylaw 7671 constitutes security for the purpose of this bylaw and may be used in accordance with section 5.10 and the *security deposit* taken pursuant to section 5.7 of this bylaw may be used as security for the purpose of the Environmental Protection Bylaw 6515 and the Tree Protection Bylaw 7671.
- 5.13 The *security deposit*, or the amount remaining after any deductions made by the *District* in accordance with section 5.10, will be returned, with interest, to the person or entity that paid the *security deposit* after:
- 5.13.1 all required repairs, replacement, clean-up and other works under section 5.10.1 have been completed to the satisfaction of the *building official*;
 - 5.13.2 the *building official* is satisfied that no further damage to public works or public lands will occur;
 - 5.13.3 the *building reviews* required by this bylaw are complete and acceptable to the *building official*; and
 - 5.13.4 the conditions or provisions of a provisional *occupancy permit* are completed to the satisfaction of the *building official*.
- 5.14 Any amount in excess of the *security deposit* required by the *District* to complete corrective work to public lands, public works, or the site is recoverable by the *District* from the *permit* holder, the *constructor* or the *owner* of the property.
- 5.15 If a *security deposit* is not collected by the payee within 5 years of the date the *occupancy permit* was issued or the last inspection was conducted, the full amount may be retained by the District and deposited to general revenue.

Compliance with the Homeowner Protection Act

- 5.16 If a *building permit* application is made in respect of a *building* that includes, or will include, a *residential occupancy*, the *building permit* must not be issued unless the *owner* provides

evidence under section 30(1) of the *Homeowner Protection* that the proposed *building*:

5.16.1 is covered by home warranty insurance; and

5.16.2 the *constructor* is a licensed residential builder.

5.17 Section 5.16 does not apply if the *owner* is not required to be licensed and to obtain home warranty insurance in accordance with sections 20(1) or 30(1) of the *Homeowner Protection Act*.

5.18 Every *building permit* is issued subject to the *owner* and *constructor* maintaining compliance with the *Homeowner Protection Act* and negotiations under it during the term of the *building permit*.

Partial Building Permit

5.19 A *building official* may issue a *building permit* for a portion of a *building* or *structure* or for an *excavation* before the design, plans and specifications for the entire *building* or *structure* have been accepted if sufficient information has been submitted to the *District* to demonstrate to the *building official* that the portion authorized to be *constructed* substantially complies with this and other applicable bylaws and all *security deposits* and charges related to the entire *building* or *structure* and the *permit* fee applicable to that portion of the *building* or *structure* have been paid. Despite the issuance of a *permit*, the requirements of this bylaw apply to the remainder of the *building* or *structure* as if the *permit* for the portion of the *building* or *structure* had not been issued.

5.20 If a site has been *excavated* under a *building permit* for *excavation* only and a *building permit* is not subsequently issued for a *building* or *structure* to which the *excavation* relates, or if such a *permit* is issued but subsequently expires without the *construction* of the *building* or *structure* having commenced, the *owner* must fill in the *excavation* and restore the original gradients of the site within 60 days of being served notice by the *District* to do so.

Building Reviews

5.21 If a *registered professional* provides letters of assurance in accordance with section 4.48, 4.49, 4.50 or 4.57, the *District* will rely solely on *field reviews* by the *registered professional* and the letters of assurance submitted pursuant to this bylaw as assurance that the *construction* substantially conforms to the design, plans and specifications and that the *construction* complies with the *Building Code*, this bylaw and other applicable enactments respecting safety.

5.22 Despite section 5.21, a *building official* may attend the site from time to time during the course of *construction* to ascertain that the *field reviews* are taking place and to monitor the *field reviews* undertaken by the *registered professionals*.

5.23 A *building official* may attend periodically at the site of the *construction* of *simple buildings* or *structures* to ascertain whether the *health and safety aspects of the work* are being carried out in substantial conformance with those portions of the *Building Code*, this bylaw and any other applicable enactments concerning safety.

- 5.24 For all work in respect of *simple buildings*, the *owner* must:
- 5.24.1 where required by the *Chief Building Official*, arrange a preconstruction meeting with at least 48 hours' notice to the *District* and said preconstruction meeting must be attended by the *building official*, the *constructor* and the *owner* or his or her representative;
 - 5.24.2 give at least 24 hours' notice to the *District* when requesting a *building review*; and
 - 5.24.3 obtain a *building review* and receive a *building official's* written acceptance of the following aspects of the work prior to concealing them:
 - (a) after demolition, but only where no *building permit* has been applied for in respect of the site, the grading of and removal of debris from the site;
 - (b) foundation and footing forms, before concrete is poured;
 - (c) foundation dampproofing;
 - (d) site and foundation drainage;
 - (e) prior to inspection under section 5.24.3(f), plumbing located below the finished slab level;
 - (f) after preparation of the subgrade, but prior to pouring the concrete floor slab including any hydronic heating pipes and below slab insulation;
 - (g) framing, firestopping, bracing, chimney and ductwork, including rough in of factory built chimneys and fireplaces and solid fuel burning appliances, rough wiring, rough plumbing, rough heating, rough gas piping, gas venting, gas appliance rough in, exterior doors and windows, but prior to the installation of insulation, interior finishes, sheathing paper or exterior finishes which would conceal such work;
 - (h) insulation and vapour barrier;
 - (i) the *health and safety aspects of the work* when the *building* or *structure* is substantially complete (prior to *occupancy*, where *occupancy* is required).
- 5.25 A *building official* will only carry out a *building review* under section 5.24 if the *owner* has requested the *building review* and only in the order prescribed in section 5.24.3(a) to (j).
- 5.26 Despite the requirement for the *building official's* acceptance of the work outlined in section 5.24.3, if a *registered professional* provides letters of assurance, the *District* will rely solely on *field reviews* by the *registered professional* and the letters of assurance submitted pursuant to this bylaw as assurance that the aspect of the *construction* referenced by those letters of assurance substantially conform to the design, plans and specifications and that the *construction* complies with the *Building Code*, this bylaw and other applicable enactments respecting safety.
- 5.27 A person must not conceal any aspect of the work referred to in section 5.24.3 of this

bylaw until a *building official* has provided notice of acceptance.

5.28 For work in respect of *complex buildings*, the *owner* must:

- 5.28.1 arrange a preconstruction meeting with at least 48 hours' notice to the *District* and said preconstruction meeting must be attended by the *building official*, the *owner* or his or her representative, the *coordinating registered* professional, the *constructor* as well as representatives of major trades;
- 5.28.2 arrange a pre-occupancy coordinated site review meeting with at least 48 hours' notice to the *District* for the *owner*, the *constructor* and the *registered professionals* to demonstrate to the *building official* and *District Fire Service* the compliance with the *health and safety aspects of the work*, the coordination and integration of the fire and life safety system, applicable *District* requirements and other enactments respecting safety; and
- 5.28.3 cause the *coordinating registered professional* to deliver to the *building official*, at least 48 hours prior to the pre-occupancy coordinated site review meeting, a confirmation of required documentation in the form specified by the *Chief Building Official*, with all such documentation contained in a hard covered three ring binder and in digital pdf format on a USB flash drive.

Occupancy Permits

5.29 A person must not:

- 5.29.1 occupy or *permit occupancy* of a *building* or *structure* or part of a *building* or *structure* until a *building official* has issued a final inspection notice for it;
- 5.29.2 a new *building* or *structure* or a *building* where there has been a change in the occupancy classification under the *Building Code* until an *occupancy permit* has been issued by the *Chief Building Official*.

5.30 An *occupancy permit* will not be issued unless:

- 5.30.1 all letters of assurance have been submitted when required by this bylaw;
- 5.30.2 the confirmation of required documentation specified in section 5.28.3 has been submitted when required in accordance with the requirements of this bylaw;
- 5.30.3 all aspects of the work requiring *building review*, inspection and acceptance pursuant to this bylaw have been reviewed, inspected and accepted or the inspections and acceptance are not required pursuant to section 5.21;
- 5.30.4 the post *construction* reports by the applicable qualified professionals pursuant to the *development permit* have been submitted;
- 5.30.5 the *owner* has executed and delivered to the *District* every agreement, instrument or form required by the *District* in relation to the work or the site; and
- 5.30.6 all required off site works respecting safety have been completed.

- 5.31 A *building official* may issue a provisional *occupancy permit* for partial *occupancy* of all or a portion of a *building* under *construction* when that portion of the *building* or *structure* is self-contained and provided with essential services respecting health and safety. The holder of a provisional *occupancy permit* must pay the Provisional Occupancy Fee prescribed in the Fees and Charges Bylaw 6481.

Temporary Building

- 5.32 Subject to the bylaws of the *District* and orders of *Council*, the *Chief Building Official* may issue a *building permit* for the erection or placement of a *temporary building* or *structure* for *occupancy* provided that the occupancy will not exceed one year and the *building* or *structure* will be removed immediately thereafter.
- 5.33 The application for a *building permit* for the erection or placement of a *temporary building* or *structure* must include:
- 5.33.1 the information, documents and plans specified in the Master Requirements List;
 - 5.33.2 security in the form of cash or a letter of credit for 10% of the value of the *temporary building*, which security:
 - (a) may be used by the *District* to remove the *building* after one year of the date of the final inspection required under this bylaw, or
 - (b) must be returned to the *owner* if the *owner* removes the *temporary building* within one year of the date of the final inspection of the *temporary building* required under this bylaw; and
 - 5.33.3 the non-refundable Temporary Building Fee prescribed in the Fees & Charges Bylaw 6481.

Sanitary Facilities

- 5.34 After a *building permit* has been issued and during the time it remains valid under this bylaw, the *owner* must provide on the parcel of land in respect of which the *building permit* has been issued, sanitary facilities for the disposal of human waste from individual persons who enter on the parcel in relation to the work referred to in the *building permit*, which facilities must be accessible and unlocked when not occupied, and every sanitary facility that is not connected by plumbing that complies with the *British Columbia Plumbing Code* and this bylaw to a:
- 5.34.1 sanitary sewer; or
 - 5.34.2 septic disposal system approved under the *Public Health Act*, SBC 2008, c. 28, as amended or replaced from time to time,
- must, at all times the facility is required under this bylaw, be supplied with toilet paper, a locking door for privacy, and ventilation, and kept in a sanitary condition without leaking beyond the facility and without overflowing within the facility. Such facilities must be located so as not to create a nuisance to neighbouring parcels or highways.

PART 6 ACOUSTIC REQUIREMENTS

- 6.1 The applicant for a *building permit* for *construction* of any *building* which will contain a *residential occupancy*, other than a single family dwelling, must provide as part of the application a report and recommendations prepared by persons trained in acoustics and current techniques of noise measurements demonstrating that the noise levels in those portions of the dwelling listed below shall not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units. For the purpose of this section, the noise level is the A-weighted 24-hour equivalent (Leq) sound level:

<u>Portion of Dwelling Unit</u>	<u>Noise Level (Decibels)</u>
Bedrooms	35
Living, dining, recreation rooms	40
Kitchen, bathrooms, hallways	45

PART 7 ACCESSIBLE DESIGN REQUIREMENTS

- 7.1 The applicant for a *building permit* for *construction* of a multi-family *building* must demonstrate that the design and *construction* complies with the District's Accessible Design Policy for Multi-Family Housing, as amended or replaced, or such other design as may be accepted by the *Chief Building Official*.

PART 8 POOLS

Permit Required

- 8.1 Without limiting section 4.6, no person may *construct* or structurally repair a swimming *pool* without a valid and subsisting *building permit*.

Swimming Pool Fencing

- 8.2 A *pool*, spa or hot tub not contained within a *building* must be completely enclosed by a fence *constructed* without footholds or grips that children may use to climb into the enclosed area, having a minimum height of 1.2 meters and no openings greater than 100 mm at their least dimension.

Pool Gate

- 8.3 Access through a fence enclosing a *pool*, *spa* or *hot tub* must be only through a self-closing and self-latching gate designed and *constructed* or installed so as to cause the gate to return to a closed position when not in use and secured by a latch located on the *pool*, *spa* or *hot tub* side of the gate.

Spa or Hot Tub Lid

- 8.4 In lieu of a fence, a spa or hot tub may be covered with a locking cover to prevent

unauthorized access to the water.

Maintenance

- 8.5 The owner and the occupier of any property on or in which a *pool*, spa or hot tub is located must maintain all fences, gates or covers required under sections 8.2 to 8.4 in good order at all times and must immediately repair or replace any sagging fences, gates, loose parts, torn mesh, missing materials, worn latches, locks or broken or binding members.

PART 9 RETAINING WALLS

Permit

- 9.1 Without limiting section 4.6, no *person* may *construct*, or structurally repair, a *retaining wall* without a valid and subsisting *building permit* or *development permit*, if required.
- 9.2 A *registered professional* must undertake the design and conduct *field reviews* of the *construction* or structural repair of a *retaining wall*. Sealed copies of the design plan and letters of assurance prepared by the *registered professional* for all *retaining walls* must be submitted to a *building official* prior to issuance of a *permit* for the work.

Slopes Created by Excavation

- 9.3 Except as certified by a qualified professional, a cut on a parcel that is steeper than one linear unit vertically to one linear unit horizontally and total height of 1.22 meters or more that is created by *excavation* is prohibited unless restrained by a *retaining wall*.

Slopes Created by Fill Material

- 9.4 Except as certified by a qualified professional, fill material placed on a parcel, unless restrained by permitted *retaining walls*, must not have a surface slope exceeding a ratio of one linear unit vertically to two linear units horizontally.

PART 10 BUILDING MOVE

Permit Required

- 10.1 No *person* may relocate a *building* or *structure* into, out of or within the *District* without a valid and subsisting *building permit* for the relocation.
- 10.2 No *person* may relocate a *building* or *structure* into or within the *District* except:
- 10.2.1 where a *registered professional* has certified that the *building* or *structure* will substantially comply with the current version of the *Building Code*; and
- 10.2.2 a *building* permit has been issued for the *building* or structure.

PART 11

ADDRESSING AND SUITE NUMBERING

Addressing

- 11.1 A person must not *construct* on a parcel unless the civic address is conspicuously posted on the front of the premises or on a sign post so it may be easily read from the public highway from which it takes its address.
- 11.2 Immediately upon issuance of a *building permit* or prior to and during the occupancy of a *building*, until such time as the *building* is removed from the site or has been demolished, the *owner* or occupant must display the address number assigned to the *building* by the *Chief Building Official*:
- 11.2.1 on or over the entrance to the *building*; or
- 11.2.2 elsewhere on the *building* within sight of the street where landscaping or *structures* obscure the view of the *building* entrance from the street.
- 11.3 Despite section 11.2, the *Chief Building Official* may re-number or alter the assigned numbers in respect of any *buildings* on any parcel, including those already in existence or numbered.
- 11.4 The address numbers must be on a contrasting background and of a size in conformance with Table 11.3.1 below:

Table 11.3.1

Building Setback from Street	Minimum Non-illuminated Character Size	Minimum Illuminated Character Size
0-15 m	100 mm	80 mm
15-20 m	150 mm	100 mm
Greater than 20 m	200 mm	150 mm

Suite Numbering

- 11.5 Except as otherwise authorized by the *Chief Building Official*, all buildings must use a consecutive increasing numbering system for storey and suite numbering without skipping any numbers in accordance with the following:
- 11.5.1 Floors number in increasing numerical sequence starting from either the first storey as established by the *Building Code* or the primary addressed street entrance and without skipping any numbers;
- 11.5.2 Numbering must not skip numbers between adjacent floor levels; and

- 11.5.3 Suites must be numbered in increasing numerical sequence, in a clockwise fashion starting from the first and closest suite located directly to the left when entering the floor space through either the primary addressed street entry or the passenger elevator serving the primary addressed street entry and ending to the right of the elevator.

PART 12 MECHANICAL PERMIT

Potable Water Cross Connection

- 12.1 The *Chief Building Official* may, in respect of a parcel where there is a cross connection to potable water, disconnect the water service to the parcel and discontinue the water service until the *Chief Building Official* confirms that the cross connection to the potable water has been removed.

Mechanical Permits for Simple Building

- 12.2 An application for a *mechanical permit* for *plumbing* for a *simple building* must:
- 12.2.1 include the applicable information, documents and plans specified in the Master Requirements List; and
 - 12.2.2 contain any other information necessary to satisfy the *Chief Building Official* that the proposed installation, *alteration* or repair of plumbing complies with the *health and safety aspects of the work* and this and every other applicable *District* bylaw; and
 - 12.2.3 be submitted together with the applicable fees prescribed in the Fees and Charges Bylaw 6481 in accordance with section 16.1 of this bylaw.
- 12.3 An application for a *mechanical permit* for a forced air heating distribution system for a *simple building* must include heat loss calculations and appliance selection work sheet per the HVACIABC "Quality First" guidelines or equivalent.
- 12.4 An application for a *mechanical permit* for a hydronic heating distribution system for a *simple building* must include:
- 12.4.1 heat loss calculations and hydronic system design per the RHWABC guidelines or equivalent;
 - 12.4.2 letters of assurance as may be required pursuant to section 4.48 or 4.50.

Mechanical Permits for Complex Building

- 12.5 An application for a *mechanical permit* for *plumbing* for a *complex building* must be signed by a licensed plumber and:
- 12.5.1 include the applicable information, documents and plans specified in the Master Requirements List; and

- 12.5.2 contain any other information necessary to satisfy the *Chief Building Official* that the proposed installation, *alteration* or repair of plumbing complies with the *health and safety aspects of the work* and this and every other applicable *District* bylaw.
- 12.5.3 when required by the *Chief Building Official*, include a minimum of two complete sets of:
- (a) plans showing the location and size of every *building* drain and every trap, sump and *plumbing* fixture and all water distribution piping; and
 - (b) sectional drawings showing the size and location of every *soil* or waste pipe, trap and vent pipe,
- and the drawings and documents must be sealed by the *registered professional* and include complete design and calculation criteria so that the *Chief Building Official* has the information available for examination;
- 12.5.4 include letters of assurance as required pursuant to section 4.48 or 4.50;
- 12.5.5 contain any other information necessary to satisfy the *Chief Building Official* that the proposed installation, *alteration* or repair of plumbing complies with the *health and safety aspects of the work* and this and every other applicable *District* bylaw; and
- 12.5.6 be submitted together with the applicable fees prescribed in the Fees and Charges Bylaw 6481 in accordance with section 16.1 of this bylaw.
- 12.6 An application for a *mechanical permit* for sprinklers or a fire suppression system must:
- 12.6.1 be signed by a licensed sprinkler fitter or, if permitted by a provincial enactment, the *owner*;
 - 12.6.2 include plans, sections and documentation as required by the relevant NFPA 13, 13r or 13d standard sealed by the *registered professional*; and
 - 12.6.3 include letters of assurance as may be required pursuant to section 4.48 or 4.50.

Storm and Sanitary Sewer Connections

- 12.7 Every *owner* of a parcel must in all cases where it is proposed to conduct waste from *plumbing* fixtures, trade waste or surface or roof water to a public sewer:
- 12.7.1 confirm with the *Chief Building Official* that the public sewer is at a sufficient depth and of a capacity to receive the discharge;
 - 12.7.2 deliver to the *District's* Director of Engineering such information as the Director of Engineering may require to show that the proposed sewers will be laid at such depth and in such a position as to connect the property with the *building* or storm sewer extension; and
 - 12.7.3 arrange the plumbing to suit the location of the connection provided for the parcel

by the *Chief Building Official*.

Mechanical Inspections

- 12.8 A *building official* may attend periodically at the site of *mechanical work* in respect of *simple buildings* or *structures* to ascertain whether the *health and safety aspects of the work* are being carried out in substantial conformance with those portions of the *Building Code*, this bylaw and any other applicable enactments concerning safety.
- 12.9 For all *mechanical work* in respect of *simple buildings* the *owner*, or his or her representative, must give at least 24 hours' notice to the *District* when requesting an inspection and must obtain an inspection and receive a *building official's* acceptance of the following aspects of the work prior to concealing them:
- 12.9.1 underground water, sanitary and storm services, foundation drainage piping and damp proofing; prior to such inspection the *owner* or his agent, must deliver to the *Chief Building Official* a letter sized site and foundation drainage plan;
 - 12.9.2 heating distribution piping or duct work;
 - 12.9.3 rough plumbing;
 - 12.9.4 rough fire sprinkler and fire suppression piping;
 - 12.9.5 tub and shower fixtures and piping;

after the *mechanical work* is complete and ready for occupancy, but before occupancy.

- 12.10 A *building official* will only carry out an inspection under section 12.8 if the *owner* has requested the inspection and only in the order prescribed in section 12.9.1 to 12.9.5.
- 12.11 The requirements of section 12.9 do not apply to any aspect of the work that is the subject of a *registered professional's* letters of assurance provided in accordance with section 4.50.
- 12.12 If a *registered professional* provides letters of assurance in accordance with sections 4.48, 4.49, 4.50 or 4.57, the *District* will rely solely on *field reviews* undertaken by the *registered professional* and the letters of assurance submitted pursuant to this bylaw as assurance that the work authorized by the *permit* substantially conforms to the *design*, plans and specifications and that the work substantially complies with the *Building Code*, the *Electrical Code*, *Natural Gas and Propane Code*, this bylaw, any other applicable bylaw of the *District*, provisions of the *Homeowner Protection Act*, *Safety Standards Act* and associated regulations, or any other applicable enactments respecting safety.
- 12.13 Despite section 12.12, a *building official* may attend the site from time to time during the course of the work to ascertain that the *field reviews* are taking place and to monitor the *field reviews* undertaken by the *registered professionals*.

- 12.14 For *mechanical work* in respect of *complex buildings* the *owner* or his or her representative must:
- 12.14.1 arrange a preconstruction meeting prior to the start of *construction* with at least 48 hours' notice to the *District* and this preconstruction meeting must be attended by the *building official*, the *owner* or his or her representative, the *coordinating registered professional*, the *constructor* and representatives of major trades;
 - 12.14.2 request an inspection prior to opening the premise isolation water valve;
 - 12.14.3 request an inspection prior to removal of the sanitary premise isolation plug; and
 - 12.14.4 request an inspection prior to removal of the storm water premise isolation plug.

Provisional Plumbing Final

- 12.15 The *Chief Building Official* may issue an inspection notice for provisional *plumbing* final in support of provisional *occupancy* of part of a *building* pursuant to section 5.31.

Connection to Storm Drainage System

- 12.16 Subject to the Sewer Bylaw 6656 and Development Servicing Bylaw 8145, during *construction* or *alteration* of a single or two family dwelling, the *owner* must connect all rainwater conductors in the onsite drainage system to a municipal storm drainage system provided such system is contiguous to the parcel on which the *construction* or *alteration* is taking place.
- 12.17 The onsite drainage system referred to in section 12.16 must be extended to the rear parcel line if the municipal connection is located at the front of the parcel or to the front parcel line if the municipal connection is located at the rear of the parcel wherever reasonably possible.

Plumbing Regulations

- 12.18 An *owner* must:
- 12.19 not permit or cause to be permitted material transitions upstream of the main shut off valve within the perimeter of a *building* foundation;
 - 12.20 ensure that sanitary and storm sewer connections in respect of a *building* are fitted with a *District* standard inspection chamber at or near the property line;
 - 12.21 not permit or cause to be permitted corrugated, perforated and unperforated plastic piping to be used in conveying storm water in a storm drainage system; and
 - 12.22 not permit or cause to be permitted the connection of any subsoil drainage system to a drywell or rock pit unless the subsoil conditions are suitable for use of a drywell or rock pit as determined by a soil report prepared by a qualified professional engineer and accepted by the *Chief Building Official* in advance.

Storm Water Pumps

- 12.23 A *mechanical permit* for the installation of storm water pumps must include letters of assurance as required pursuant to section 4.50.10.
- 12.24 New storm water pump installations must include:
- 12.24.1 dual or duplex pumps; and
 - 12.24.2 a high level alarm audible within the premises.
- 12.25 As a condition of issuance of a *mechanical permit* for the installation of a storm water pump, the *Owner* must grant to the *District* a covenant under section 219 of the *Land Title Act*, RSBC 1996, c. 250, as amended or replaced from time to time, in a form satisfactory to the *municipal solicitor*.

Sanitary System Pumps

- 12.26 A *mechanical permit* for the installation of sanitary pumps where the pump serves an entire residence must include letters of assurance as required pursuant to section 4.50.11.
- 12.27 New sanitary pump installations must include a high level alarm audible within the premises.

Fire Sprinklers

- 12.28 “*Fire limits area*” in this Part means the areas shown on the plan attached as Schedule C.
- 12.29 Except as set out in section 12.30, sections 12.31 to 12.33 apply to:
- 12.29.1 a new *building* containing a mercantile, industrial, assembly, institutional, business, personal service or *residential occupancy*;
 - 12.29.2 an existing *building* containing a *residential occupancy* upon creation of an additional dwelling unit;
 - 12.29.3 an existing *building* containing a mercantile, industrial, assembly, institutional, business, personal services or *residential occupancy* if the total *building permit* value of all *additions* and structural *alterations* made within any consecutive 24 month period, as determined by the *Chief Building Official* pursuant to this bylaw, exceeds 25% of the assessed value of the existing *building* as determined by the most recent assessment by the British Columbia Assessment Authority; and
 - 12.29.4 an existing *building* containing a *residential occupancy* and located within the *fire limits area* if the total *building permit* value (excluding the value of the fire sprinkler system) of all *additions* and or structural *alterations* made within any consecutive 24 month period, as determined by the *Chief Building Official* pursuant to this bylaw, exceeds \$100,000.00.
- 12.30 Sections 12.31 to 12.33 do not apply to single family *residential* dwelling units located

outside the *fire limits area*, accessory *buildings* having a floor area of less than 30 square meters, *temporary buildings*, park shelters, detached gas station canopies or detached garages serving only one dwelling unit.

- 12.31 A *building* containing a mercantile, industrial, assembly, institutional, business, personal service or *residential occupancy* and any *building* in a *fire limits area* must be sprinklered in accordance with NFPA 13 1996 "Standard for Installation of Sprinkler Systems".
- 12.32 A *building* containing only a *residential occupancy* of up to four storeys in height must be sprinklered in accordance with NFPA 13 1996 "Standard for installation of Sprinkler Systems" or with NFPA 13R 1996 "Standard for installation of Sprinkler Systems in Residential Occupancies up to and including Four Storeys in Height", except as set out in section 12.33.
- 12.33 A *building* containing only one or two family *residential occupancies* must be sprinklered in accordance with NFPA 13 1996 "Standard for installation of Sprinkler Systems" or with NFPA 13R 1996 "Standard for installation of Sprinkler Systems in Residential Occupancies up to and including Four Storeys in Height", or NFPA 13D 1996 "Standard for installation of Sprinkler Systems in one and two Family Dwellings and Mobile Homes".
- 12.34 A *mechanical permit* for the installation of fire sprinkler systems must include letters of assurance as required pursuant to section 4.50.12.

Water Conservation

- 12.35 Every water closet must be a low consumption type which:
 - 12.35.1 conforms with CSA B45.0-99, "General Requirements for Plumbing Fixtures"; and
 - 12.35.2 has an average water consumption not exceeding 6 litres per flush cycle.
- 12.36 Every urinal must be a low consumption type which:
 - 12.36.1 conforms with CSA B45.0-99, "General Requirements for Plumbing Fixtures"; and
 - 12.36.2 has an average water consumption not exceeding 3.8 litres per flush cycle.

Gas Work

- 12.37 No *mechanical permit* is required under this Bylaw for *gas work* that may be done without a *permit* pursuant to the *Gas Safety Regulation*.
- 12.38 Only those persons who may perform *gas work* pursuant to the *Gas Safety Regulation* may apply for a *mechanical permit* for *gas work* under this bylaw.
- 12.39 An application for a *mechanical permit* must be submitted together with the applicable fees prescribed in the Fees and Charges Bylaw 6481 in accordance with section 16.1 of this bylaw.

- 12.40 The *District's* mechanical inspectors are safety officers under the *Safety Standards Act* for the purpose of administering the *Gas Safety Regulation* and have all of the powers of safety officers under said enactments.
- 12.41 Where *gas work is being* undertaken pursuant to a *mechanical permit* issued to a licensed gas contractor, the *District's* mechanical inspectors will provide random spot inspections only.

PART 13 ELECTRICAL PERMITS

Local Safety Manager and Local Safety Officers

- 13.1 The *District's* electrical inspectors are safety officers under the *Safety Standards Act* for the purpose of administering the *Electrical Safety Regulation* and have all of the powers of safety officers under said enactments.

Permits

- 13.2 Only those persons who may perform *electrical work* pursuant to the *Electrical Safety Regulation* may apply for an *electrical permit* under this bylaw.
- 13.3 An application for an *electrical permit* must be submitted together with the applicable fees prescribed in the Fees and Charges Bylaw 6481 in accordance with section 16.1 of this bylaw.
- 13.4 No *electrical permit* is required under this Bylaw for *electrical work* that may be done without a permit pursuant to the *Electrical Safety Regulation*.

PART 14 ENERGY STEP CODE

- 14.1 In relation to the conservation of energy and the reduction of greenhouse gas emissions, the District may reference and implement, in whole or in part, the *Energy Step Code*.
- 14.2 Effective July 1, 2018, any building classified as a Group D or Group E occupancy under the *Building Code* must be designed and constructed to meet the performance requirements specified in Step 1 of the *Energy Step Code*.
- 14.3 Effective July 1, 2018, any residential occupancy building regulated by Part 3 of the *Building Code* must be designed and constructed to meet the performance requirements specified in Step 2 of the *Energy Step Code*.
- 14.4 Effective July 1, 2018, any residential occupancy building regulated by Part 9 of the *Building Code*, must be designed and constructed to meet the performance requirements specified in Step 3 of the *Energy Step Code*.
- 14.5 Any residential occupancy building regulated by Part 3 or Part 9 of the *Building Code* which is located on property that has been re-zoned after December 15, 2017, must be designed and constructed to meet the performance requirements specified in Step 3 of the *Energy Step Code*.

PART 15

RADIO AMPLIFIER BYLAW

- 15.1 All applications for a *building permit* to which the Radio Amplifier Bylaw 8272 applies must comply with the requirements of that bylaw and required information must be submitted with the *building permit* application.

PART 16

FEES AND CHARGES

Permit Fees

- 16.1 In addition to any applicable fees and charges required under other bylaws, the *owner* must pay all applicable fees related to an application for any *permit* under this bylaw as prescribed in the Fees and Charges Bylaw 6481 and such fees must be paid as follows:
- 16.1.1 50% of the total applicable fees must be paid at the time of the *building permit* application; and
- 16.1.2 the full balance of the total applicable fees must be paid prior to issuance of the *permit*.

Inspection Fees

- 16.2 In addition to the permit fees required under section 16.1, the *owner* must also pay the *building review*, inspection, re-examination fees and other fees as prescribed in the Fees and Charges Bylaw 6481.

Fee Reduction where Letters of Assurance are Being Relied Upon

- 16.3 Where letters of assurance are being relied upon by the *District* pursuant to sections 4.48 or 4.50, the applicable *permit* fee will be reduced by 2.5%, up to a maximum reduction of \$500.00.

Refunds

- 16.4 No fee or part of a fee paid to the *District* may be refunded if *construction* of the *building* has started.
- 16.5 Except as otherwise provided in this bylaw, all fees and charges required by this bylaw are non-refundable.
- 16.6 If a valid and subsisting *permit* is cancelled at the request of the applicant, the *Chief Building Official* may issue a refund as follows:
- 16.6.1 for a *building permit*, a refund equal to that part of the fees paid at issuance of the *permit* in accordance with section 16.1.2 less an administration fee of 15% of that amount;
- 16.6.2 for an *electrical permit* or *mechanical permit*, a refund equal to the application fees for such *permit* less an administration fee of 15%,

provided that:

- 16.6.3 the *owner* has submitted a written request for a refund;
 - 16.6.4 the *Chief Building Official* has certified that *construction* of the work authorized by the *permit* has not been started;
 - 16.6.5 the *permit* has never been extended; and
 - 16.6.6 the *permit* has not expired.
- 16.7 If a valid and subsisting *electrical permit* or *mechanical permit* is cancelled at the request of the applicant, the *Chief Building Official* may refund the application fees for such *permit* less an administration fee of 15%.

PART 17 OFFENCES

Obstruction

- 17.1 A person must not interfere with, delay, obstruct or impede a *building official* or *bylaw enforcement officer* or designate or other person lawfully authorized to enforce this bylaw in the performance of duties under this bylaw.

Violations

- 17.2 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 shall be liable to the penalties hereby imposed and each day that such violation is permitted to exist shall constitute a separate offence.

Penalty

- 17.3 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 \$10,000.00 in addition to the costs of the prosecution.

Deemed Offence

- 17.4 An *owner* is deemed to have knowledge of and be liable under this bylaw in respect of any *construction* on the parcel the *owner* owns and any change in the use, *occupancy* or both of a *building* or *structure* or part of a *building* or *structure* on that parcel.
- 17.5 Nothing in section 17.4 affects:
- 17.5.1 the *District's* right to require and the *owner's* obligation to obtain a *permit*; and
 - 17.5.2 the obligation of the *owner* to comply with this bylaw.

Designation of Bylaw

- 17.6 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

- 17.7 *Building officials, bylaw enforcement officers, environmental protection officers* 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

- 17.8 Pursuant to Section 264(1)(c) of the Community Charter, the words or expressions set forth below in Column 1 of the table below designate the offence committed under the bylaw section numbers appearing in Column 2 opposite the respective words or expressions.
- 17.9 Pursuant to Section 265(1)(a) of the Community Charter, the fine amount set forth below in Column 3 of the table below is the fine amount that corresponds to the words or expressions and section number set out in Columns 1 and 2 opposite the fine amount:

COLUMN 1	COLUMN 2	COLUMN 3
DESIGNATED EXPRESSION	SECTION	FINE
		\$
Failure to comply with order by Chief Building Official	4.4	300
Construct building without permit	4.7.1	400
Change use without permit	4.7.2	200
Change occupancy without permit	4.7.2	200
Install commercial cooking facility without permit	4.7.3	300
Install or modify fire alarm or sprinkler without permit	4.7.4	200
Move building without permit	4.7.5	300
Demolish building without permit	4.7.6	500
Occupy new building without permit	4.7.7	400
Install, construct, repair or alter fireplace or wood-burning appliance without permit	4.7.8	200
Perform mechanical work without permit	4.7.9	300
Perform electrical work without permit	4.7.10	300
Failure to comply with conditions of permit	4.10	200
Carry out work contrary to regulations	4.26	300
Obstruct entry of inspector	4.29.1	200
Failure to have plans available at site	4.29.2	150
Failure to post permit on site	4.29.3	150
Failure to ensure work complies with permit or regulations	4.29.4	300
Do work at variance with accepted plans	4.29.5	300

COLUMN 1	COLUMN 2	COLUMN 3
DESIGNATED EXPRESSION	SECTION	FINE
Failure to manage sediment or erosion	4.29.6	300
Failure to ensure catch basin fitted with sediment trap	4.29.7	200
Failure to pay costs for damage to District property	4.29.9	300
Failure to post signage with required information	4.29.10	200
Failure to post signage that meets requirements	4.30	150
Failure to notify re. change in registered professional	4.31	200
Failure to suspend work when registered professional terminated	4.32	300
Failure to notify re. change of ownership or address	4.33	150
Failure to uncover work completed without inspection	4.35	200
Cause damage to District property or works	4.36	400
Failure to provide pest control report	4.40	150
Failure to install required erosion and sediment controls during demolition	4.41	300
Failure to clear debris from demolition site	4.42.1	200
Failure to separate gypsum from other debris	4.42.2	200
Failure to back-fill demolition site	4.42.3	200
Failure to make demolition site level	4.42.4	200
Failure to make demolition site stable from erosion	4.42.5	200
Failure to leave demolition site in tidy condition	4.42.6	200
Failure by constructor to comply with Building Code	4.46	300
Failure to secure site after Stop Work Order Notice posted	4.66	200
Carry out unauthorized work after Stop Work Order Notice posted	4.67	400
Failure to leave Stop Work Order Notice posted	4.68	200
Failure to cease occupancy when Do Not Occupy Notice posted	4.70	300
Failure to fill in excavation	5.20	200
Failure to obtain building review	5.24.3	200
Failure to obtain building review prior to concealing work	5.27	300
Occupying building with changed classification where no occupancy permit	5.29	300
Occupy temporary building for more than 1 year	5.32	200
Failure to remove temporary building	5.32	200
Failure to provide sanitary facilities or required amenities	5.34	200
Failure to keep sanitary facility in sanitary condition	5.34	150
Construct or repair pool without permit	8.1	300
Failure to enclose pool, spa or hot tub	8.2	200
Failure to install self-latching gate to pool	8.3	200
Failure to have locking cover on spa or hot tub	8.4	200
Failure to maintain required fence, gate or cover for pool, spa or hot tub	8.5	200
Construct or repair retaining wall without permit	9.1	200
Failure to obtain or submit to District registered professional design or field review for retaining wall	9.2	200

COLUMN 1	COLUMN 2	COLUMN 3
DESIGNATED EXPRESSION	SECTION	FINE
Excavation steeper than permitted	9.3	300
Deposit of fill material steeper than permitted	9.4	300
Relocate building without building permit	10.1	250
Failure to display address number per requirements	11.1	150
Address numbers smaller than required	11.4	150
Failure to number floors as required	11.5.1	150
Failure to comply with suite numbering requirements by skipping numbers between adjacent floors	11.5.2	150
Failure to number suites in increasing numerical sequence and clockwise fashion	11.5.3	150
Failure to arrange plumbing to suit location of connection to public sewer	12.7.3	200
Failure to obtain mechanical inspection	12.9	200
Failure to request mechanical inspection	12.14	200
Failure to connect drainage to municipal storm drainage system	12.16	400
Permit material transitions upstream of main shut off valve within perimeter of building foundation	12.19	200
Failure to ensure sanitary and storm sewer connections fitted with District standard inspection chamber at or near property line	12.20	300
Permit corrugated, perforated and unperforated plastic pipe to convey storm water	12.21	300
Permit connection of subsoil drainage system to drywell or rock pit without professional report accepted by Chief Building Official	12.22	300
Failure to include dual or duplex pumps in new storm water pump installation	12.24.1	300
Failure to include high level alarm audible within the premises for new storm water pump installation	12.24.2	200
Failure to grant section 219 covenant for storm water pump	12.25	200
Failure to include high level alarm audible within the premises for new sanitary pump installation	12.27	200
Failure to sprinkler mercantile, industrial, assembly, institutional, business, personal service or residential occupancy building or building in Fire Limits Area as required	12.31	300
Failure to sprinkler residential building up to four stories in height as required	12.32	300
Failure to sprinkler one- or two-family residential occupancy as required	12.33	300
Person who is not authorized performing gas work	12.38	300
Person who is not authorized performing electrical work	13.2	300
Interfere or obstruct enforcement of bylaw	17.1	300

PART 18

MISCELLANEOUS

Severability

- 18.1 If a section, subsection, paragraph, subparagraph or phrase of this bylaw is for any reason declared invalid by a Court of competent jurisdiction, the decision shall not affect the validity of the remaining portions of this bylaw.

References

- 18.2 Any reference to Bylaw 7353, 2003 in any other District Bylaw is hereby deleted and replaced with a reference to this Bylaw 8271, 2017.

Repeal

- 18.3 The District of North Vancouver Building Regulation Bylaw No. 7353, 2005 is repealed and all references in other District bylaws to District of North Vancouver Building Regulation Bylaw No. 7353 are hereby amended to refer to District of North Vancouver Construction Bylaw 8271, 2017.
- 18.4 The following bylaws are repealed:
- 18.4.1 The Electrical Bylaw No. 7464, 2004; and
 - 18.4.2 The Gas Bylaw No. 7465, 2004.

Amendment of Other Bylaws

- 18.5 The *District's* Environmental Protection Bylaw 6515 is amended by inserting the following at the end of section 32:

The security taken pursuant to this section may also be used by the District in accordance with section 5.7 of the Construction Bylaw 8271, 2017 and the security deposit taken pursuant to section 5.7 of the Construction Bylaw 8271, 2017 may be used by the District for this section 32.

- 18.6 The *District's* Tree Protection Bylaw 7671, 2012 is amended by inserting the following at the end of section 19:

The security taken pursuant to this section may also be used by the District in accordance with section 5.7 of the Construction Bylaw 8271, 2017 and the security deposit taken pursuant to section 5.7 of the Construction Bylaw 8271, 2017 may be used by the District for this section 19.

Appendices

- 18.7 Schedules A to C are attached to and form part of this bylaw.

Citation

18.8 This bylaw may be cited for all purposes as the "**Construction Bylaw 8271, 2017**".

In Force

18.9 This bylaw comes into force December 15, 2017.

READ a first time November 6th, 2017

READ a second time November 6th, 2017

READ a third time November 6th, 2017

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

SCHEDULE A to BYLAW 8271 -VALUE OF WORK

Residential

Construction	\$/Sq.M	\$/Sq.Ft.
Crawlspace	430.60	40.00
Unfinished Basement	753.50	70.00
Main Floor	1,668.40	155.00
Upper Floor	1,507.00	140.00
Additional Floors	1,507.00	140.00
Basement or space finishing	645.80	60.00
Basement with secondary suite	753.50	70.00
Additions	120%	120%
Garages	699.70	65.00
Carports	430.60	40.00
Verandas/Covered decks	538.20	50.00
Sundeck	430.60	40.00
Carport infill to create garage	322.90	30.00
Garage/carport infill to create living area	484.40	45.00
Sundeck enclosure to create living area	807.30	75.00
Detached Garages	861.10	80.00

Demolition

Minor - less than or equal to 100 m ²	\$5000.00
Major - greater than 100 m ²	\$10,000.00

SCHEDULE B to BYLAW 8271 - Application to Existing Buildings

The level of upgrading required for an existing *building* that is non-compliant with the current *Building Code* is illustrated in the table below. The upgrading is based on the aggregate project value of all *building permits* issued over the previous 24-month period immediately preceding the date of application of a proposed *building permit*, including the value of the proposed project, divided by the assessed value of the building, expressed as a percentage.

For the purpose of applying the table below, when voluntary upgrades for fire alarm systems, sprinkler systems, exits, accessibility, seismic work and building envelop are performed along with other alterations, additions and changes of major occupancy in existing buildings, the applicant may deduct the value of this work from the aggregate value of the project costs.

When considering what is an acceptable level to upgrade existing structures the *Chief Building Official* will be guided by the following table.

Ratio of Project Costs to Assessed Value %	Item to be Upgraded	Location of Upgrading			Notes for Upgrading Work
		Project Area	Public Areas	Entire Building	
Up to 25%	Exits (*)	X			Number, capacity and fire separations
Over 25% and up to 50%	Including item above				
	Alarms/detectors	X	X		
	Emergency Lights	X	X		
	Exits			X	
	Exits Lights & Signs		X	X	
	Flame Spread Rating			X	
Over 50% and up to 100%	Including all items above				
	Access to exits and means of egress	X	X	X	
	Alarms/detectors			X	
	Emergency Lights			X	
	Fire Fighting Access and Water Supply			X	
	Floor assemblies & supports	X			
	Spatial Separation	X			
Over 100% and up to	Including all items above				

200%	Access to Exits			X	Structural survey (defined below)
	Building structure			X	
	Flame Spread Rating			X	
	Occupancy Separation			X	
	Standpipes and Sprinklers			X	
	Provisions for Section 3.7	X			
	Washrooms	X			
Over 200%	Including all items above				Structural analysis (defined below)
	Building Structure			X	
	Emergency Power & Lights			X	
	Floor assemblies & supports			X	
	High Rise requirements			X	
	Lightning Levels			X	
	Provisions for Section 3.7			X	
	Spatial Separation			X	
	STC requirements			X	
	Ventilation			X	
	Washrooms			X	

(*) to public street

Schedule B Definitions:

Structural Survey

- 1) When alterations to an existing building do not include an addition and when the total cost of the intended work exceeds 100% but does not exceed 200% of the actual value of the building as determined by the British Columbia Assessment Authority, a structural survey of the existing building may be provided by a registered structural engineer instead of a structural analysis.
- 2) The Structural Survey required by section 1) must:
 - (a) describe the condition of all structural members and connections;
 - (b) document evidence of deterioration from physical damage, fire, weather or neglect;
 - (c) document evidence of foundation settlement or failure;
 - (d) include an evaluation of the building's expected stability with respect to minimum

design loads, forces and effects;

- (e) include an evaluation of the building in conformance with the NRC publication "Guidelines for Seismic Evaluation of Existing Buildings" dated December 1992;
 - (f) document the condition of all flashings, rain gutters, down pipes, chimneys, ornamentation, parapets and appurtenances; and
 - (g) indicate the weather protection ability of the roof and exterior cladding, and the extent of impermeability of the below ground structure, where present.
- 3) Sealed drawings which detail the structural upgrading work required as a result of the survey carried out under section 2) must be provided to the *Chief Building Official* by the *owner*.
 - 4) All structural work referred to in section 3) must be completed prior to final inspection and occupancy.

Structural Analysis

- 1) A Structural Analysis of an existing *building* must be provided to the *Chief Building Official* by a registered structural *engineer* when:
 - (a) the total cost of the intended work exceeds 200% of the value of the *building* as determined by the British Columbia Assessment Authority; or
 - (b) the work includes an *addition* or *alteration* as determined by sections 3.5, 3.6 or 3.7 of this bylaw.
- 2) The Structural Analysis required by section 1) must:
 - (a) take into account the proposed *alterations* and the *building occupancy*;
 - (b) indicate the structural sufficiency of the *building* to safely resist all vertical and lateral loads, including wind and earthquake forces, and any construction loads that may be expected; and
 - (c) show the remedial works necessary to bring the *structure* up to the minimum standards required by Part 4 of the *Building Code*.
- 3) Sealed drawings which detail the structural upgrading work required as a result of the analysis carried out under section 2) must be provided to the *Chief Building Official* by the *owner*.
- 4) All structural work referred to in section 3) must be completed prior to final inspection and occupancy.

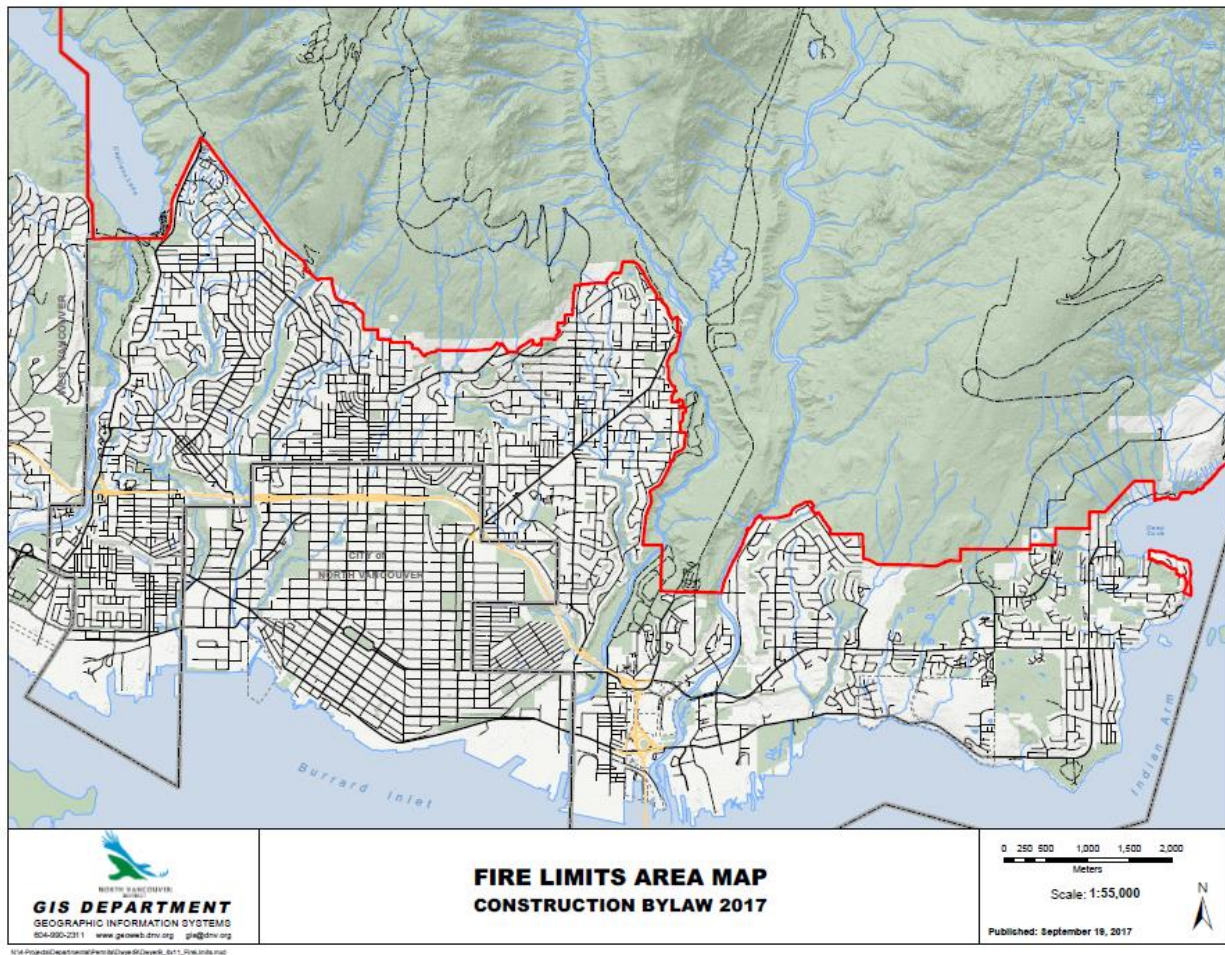
Voluntary Upgrade

Where voluntary upgrades for fire alarm systems, sprinkler systems, exits, seismic work and building envelope are performed, it is not the intent of this bylaw to require the *owner* to further upgrade the *building* as detailed in section 3.5 to 3.7 of this bylaw.

SCHEDULE C to BYLAW 8271 -FIRE LIMITS AREAS

The designated **Fire Limits Areas** are:

- 4700 and greater Blocks Prospect Rd
- 4900 greater Blocks Skyline
- 4300 and greater Blocks St Georges Ave
- 1500 and greater Blocks Lillooet Rd
- 4400 and greater Blocks Marion Rd
- 4500 and greater Blocks Lynn Valley Rd
- 2200 and greater Blocks Indian River Cres
- 2800 and greater Blocks Panorama Dr
- Eastridge Rd – even addresses only
- Any construction above the 1050ft elevation
- The areas designated as Woodlands, Sunshine and Cascades
- The area designated as Indian Arm, and
- All areas so designated on the attached plan



The Corporation of the District of North Vancouver

Bylaw 8272

A bylaw for the Regulation of Radio Amplification

WHEREAS a need exists for certain buildings and structures to have internal communications infrastructure systems which support the uninterrupted operation of the District's fire services, law enforcement and other emergency services radio communications essential to public safety and emergency response;

AND WHEREAS building design which incorporates multiple levels of underground and/or high-rise occupancy, or construction materials including concrete, low-emissivity glass, metal studs and flooring, metal-coated insulation and other attenuating materials all contribute to the interruption of emergency services communications networks;

AND WHEREAS radio support and amplification systems within buildings or structures can overcome the interruption of emergency communications networks and are vital to the delivery of public safety and emergency services in the District;

NOW THEREFORE the Council of the District of North Vancouver, in open meeting assembled, enacts as follows:

1. INTERPRETATION

Citation

1.1 This bylaw may be cited as "**RADIO AMPLIFICATION BYLAW 8272, 2017**".

Purpose and Application

1.2 It is not contemplated nor intended that this bylaw will provide, nor will this bylaw be interpreted as:

- (a) providing protection to owners, builders, constructors or any other persons from economic loss;
- (b) for ensuring the compliance by any owner, agent of an owner or any employees, builders, constructors or designers retained by an owner, with the requirements of this bylaw;
- (c) providing a warranty to any person of design or workmanship or materials with respect to any building, structure or part thereof for which a permit or occupancy certificate is issued under this bylaw;
- (d) providing a warranty or assurance to any person that construction or installation undertaken pursuant to this bylaw is free from any defects, whether patent or latent.

- 1.3 This bylaw applies to:
- (a) the design, construction and occupancy of new buildings and structures; and
 - (b) the alteration, reconstruction or renovation of existing buildings which add more than 20% in gross floor area to an existing building or structure.
- 1.4 This bylaw does not apply to:
- (a) any single and two family dwelling;
 - (b) any building or structure constructed of wood frame and without metal cladding;
 - (c) any building less than 5,000 square metres; or
 - (d) any building or structure less than 12 metres in height to the top of the roof.
- 1.5 The owner of any building or structure referred to in section 1.3 above which is constructed using reinforced concrete or structural steel, metal cladding, studs and/or flooring, reflective or low-emissivity glass, or other attenuating materials, and which:
- (a) has a gross floor area of more than 5,000 square metres;
 - (b) is over 12 metres in height to the top of the roof;
 - (c) has more than 1,000 metres of basement floor space; or
 - (d) has a basement more than 10 metres below the lowest street level of the building

must install and maintain radio amplification systems which will function with the area-wide public safety communications service provider to support uninterrupted radio network communications for public safety and emergency responders within the District.

Definitions

- 1.6 In the absence of specific definition in this section 1.5, the words used in this bylaw have the meaning, if any, given to them by definition in the *Community Charter*, S.B.C. 2003 c. 26, as amended or replaced.
- 1.7 In this Bylaw, unless the context otherwise requires:
- “agent of an owner” includes a person, firm or corporation representing the owner by designation or contract and includes a hired tradesman or contractor for the owner;
- “building” means a structure or portion thereof, which is used or intended to be used for supporting or sheltering any use or occupancy;
- “Building Code” means the current edition of the British Columbia Building Code as adopted by the Minister responsible under provincial legislation, as amended, re-enacted or repealed and replaced from time to time;

“building official” means the Chief Building Official and the building inspectors, plan checkers, plumbing inspectors, mechanical inspectors and electrical inspectors designated or appointed by the District;

“Chief Building Official” means the person designated or appointed to that position by the District and any person named by the Council to act in place of the Chief Building Official;

“construct” or “construction” includes build, erect, install, repair, alter, add, enlarge, move, locate, relocate, reconstruct, with respect to a building or structure;

“Council” means the elected council of the District;

“District” means the Corporation of the District of North Vancouver;

“E-Comm” means Emergency Communications for Southwest British Columbia Incorporated and all the features and functions of the trunked public safety radio telecommunications systems, including microwave and VHF/UHF radio systems, provided by E-Comm to fire services, law enforcement and other emergency services;

“Fire Chief” means the person appointed to that position by the District and any person named by the Council to act in place of the Fire Chief;

“occupancy permit” means an occupancy permit issued by the District pursuant to the Construction Bylaw 8271, 2017;

“owner” means the person who is the owner as defined in the Building Code or an agent of that person;

“permit” means a permit issued to authorize construction regulated by the Construction Bylaw 8271, 2017, including a building permit, electrical permit, mechanical permit or occupancy permit as those terms are defined in the Construction Bylaw 8271, 2017.

“shadowed area” means an area that is subject to attenuation or obstruction of radio signals to or from the areas as a result of the interposition of all or any part of the building or structure in the radio signal path (line of sight) between the area and the transmitting/receiving site of the area-wide public safety communications service provider.

2. GENERAL PROHIBITIONS

Adequate Radio Coverage

- 2.1 Except as otherwise provided, no person shall erect, construct, change the use of or provide an addition of more than 20% in square footage to any building or structure or any part thereof, or cause the same to be done, which fails to support adequate radio coverage for the area-wide public safety communications service provider, including but not limited to fire services and law enforcement personnel.
- 2.2 For the purpose of section 2.1, “adequate radio coverage” means system access and "Delivered Audio Quality" (DAQ) of 3.4 or better (speech understandable with repetition rarely, some noise or distortion may be present) for communication between a portable (handheld) radio using a simple flexible whip antenna and both the area-wide public safety

communications service provider and the District radio communications network(s) transmitting/receiving sites:

- (a) within the building, for a minimum of 90% of the area of each floor of the building, including underground areas such as for parking;
- (b) within the building, for 100% of fire command centres, stairwells, protect-in-place areas, lobby refuge areas, equipment rooms and high-hazard areas; and
- (c) in areas that are in the Shadow Area of the building, in 90% of all areas where DAQ 3.4 could be achieved before the erection, construction or modification of the building or structure.

As an aid to system design, DAQ 3.4 has been measured by NTIA (U.S. Department of Commerce, National Telecommunications and Information Administration) to be approximately equivalent to 22 dB SINAD (Signal-to-Noise And Distortion ratio) for analogue signals modulated with a 1 kHz tone at 1.5 kHz deviation, and to 2% BER (Bit Error Rate) for P25 digital signals. It may also be approximately equivalent to a received signal level of -95 dBm in the absence of other signals that may affect the receiver. Good design should provide a margin of not less than 10 dB to allow for uncontrolled variables. Based on the foregoing, the design target for indoor coverage should be -85 dBm.

- 2.3 The radio frequency ranges to be supported are any frequencies used by the area-wide public safety communications service provider. If signal amplifiers are used, they must include filters that will protect the amplifiers from overload and the system from interference by out-of-band signals.
- 2.4 In the event that active amplification is required to meet the foregoing communication quality requirements in the building including Shadowed Area of the building, coordination with the public safety communications service provider and the District's communications network provider is required to ensure that its outdoor radio communication performance is not degraded. Where a decision must be made regarding the maintenance of either service provider's outdoor radio communication performance and restoration of signal strength in the building and Shadowed Area, the trade-off decision shall be made by the public safety communications service provider(s) and communicated to the Fire Chief and Officer in Charge of the North Vancouver RCMP detachment by the building owner.

Amplification Systems Allowed

- 2.5 Where a building or structure is required to provide an Amplification System to achieve adequate radio communication coverage, such system must include any of the following that are sufficient to achieve the required coverage:
 - (a) passive antenna systems or radiating cable systems;
 - (b) distributed antenna systems with uni-directional or bi-directional amplifiers (BDAs) as needed;
 - (c) voting receiver systems; or

- (d) any other system accepted and approved by the Fire Chief and Police Chief, as signified in writing on a case by case basis.
- 2.6 To prevent interference and operational interruption to the area wide public safety radio system, any amplification system installed under this bylaw must meet the guidelines and installation standards as described in the "Standard and Methods of Installation" as provided by the area-wide public safety communications service provider.
- 2.7 If any part of the installed Amplification System contains an electrically powered component, the system must be equipped to operate on an independent "Uninterruptible Power Supply" (UPS), using a battery and/or generator system, for a period of at least four (4) hours without external input or maintenance. All amplifiers and electronics required by the system must be protected by NEMA type 4 enclosures with physical security. The UPS must automatically charge the batteries in the presence of external power. The UPS must provide a monitored alarm signal to indicate failure of primary power, failure of the UPS system power output, and/or discharge of the batteries. Silencing of this alarm is the responsibility of the person maintaining the equipment.
- 2.8 A system summary alarm, consisting of a relay contact closure or equivalent, must be provided to the building fire panel via a hard wired connection.
- 2.9 Radio equipment must only be selected from the ISED Radio Equipment List and all active systems must be licensed by the federal regulator, Innovation, Science & Economic Development Canada (ISED), and must comply with the applicable Standard Radio Systems Plan (SRSP). Any license required must be renewed annually by the building owner and the cost of the licensing borne solely by the building owner.

3. PROCEDURES TO VERIFY AND MAINTAIN COMPLIANCE

- 3.1 Tests and measurements to verify and maintain compliance must be made at the sole expense of the building owner. The procedures used must be developed by the owner, subject to acceptance by the Fire Chief, and in compliance with the following guidelines:
 - (a) Acceptance Test Procedure**
 - 3.1.1 Acceptance tests and measurements must be performed after completion of installation of the Amplification System. Tests must be performed using radio frequencies assigned to the area-wide public safety communications service provider and the District, after proper coordination with an agent for that system and with the Fire Chief.
 - 3.1.2 If queuing occurs on the radio system while testing is underway, testing must be terminated immediately and resumed only when traffic levels on the system reach a level where queuing no longer occurs.
 - 3.1.3 For all tests, a pre-defined "Harvard" sentence should be used, such that the listeners are not aware of the sentence in advance on each test. A different recorded sentence should be used at each location.

- 3.1.4 Where the Shadowed Area or the floor plate area of a building is greater than 4,500 m², the area must be divided into a uniform grid of not more than 15 m on a side, or if the floor area is smaller than 4,500 m², it shall be divided into a uniform grid of approximately 20 equal areas to a minimum of 9 m², and measurements shall be taken in each grid area. The size of the grids must also be reduced, or the number of grids increased, upon recommendation of the Fire Chief or building official in areas where special construction or other obstruction may significantly affect communications. Tests must also be performed in fire command centres, stairwells, protect-in-place areas, lobby refuge areas, equipment rooms, and high-hazard areas.
- 3.1.5 Tests must first be made using a portable (handheld) radio of the type used by the District's Fire or Police service personnel, carried at chest level and using a simple flexible antenna, and will be deemed satisfactory if DAQ 3.4 or better (speech understandable with repetition only rarely, some noise or distortion may be present) can be achieved for a five-second test transmission in each direction. If system access is not reliable, or if DAQ 3.4 for five seconds cannot be achieved at any location, the test operator may move a maximum of 1.5m in any direction inside of the grid and repeat the test. If system access continues to be unreliable, or if DAQ 3.4 still cannot be achieved, or if there is any doubt about whether it can be achieved, a failure shall be recorded for that location.
- 3.1.6 A maximum of two (2) non-adjacent grid areas on a floor or in a shadow will be allowed to fail the test. In the event that three (3) or more areas on a floor or in a shadow fail the test, the floor or Shadowed Area may be divided into 40 approximately equal areas to a minimum of 4 m², and the tests repeated. In such event, a maximum of four (4) non-adjacent grid areas will be allowed to fail the test. If the Amplification System fails the 40-area test, the building owner shall have the system altered to meet the 90% coverage requirement, otherwise the Amplification System will not be accepted.
- 3.1.7 If the Amplification System fails to provide acceptable communication in any fire command centre, portion of a stairwell, protect-in-place areas, lobby refuge areas, equipment rooms, or high-hazard areas, the building owner must have the system altered to meet the 100% coverage requirement for these areas, otherwise the Amplification System will not be accepted.
- 3.1.8 Backup batteries and power supplies must be tested under full load by generating communication traffic automatically for a duration of at least one (1) hour. If within this period the battery shows any symptom of failure or impending failure, the test shall be continued for additional one-hour periods to determine the integrity of the battery. The battery must not fail within a four (4) hour continuous test period.
- 3.1.9 Backup batteries and power supplies must be tested under full load by generating communication traffic automatically for a duration of at least one (1) hour. If within this period the battery shows any symptom of failure or impending failure, the test shall be continued for additional one-hour periods to determine the integrity of the battery. The battery must not fail within a four (4) hour continuous test period.

- 3.1.10 The gain values of all amplifiers must be measured, using a service monitor that has been calibrated by a certified laboratory within the past 12 months, and the results must be kept on file by the building owner for future verification and monitoring of performance. The gain records file must have multiple back-ups and be stored in more than one location.

(b) Annual Tests

- 3.1.11 At least annually, the building owner must test all active components of the Amplification System, including but not limited to amplifiers, power supplies and back-up batteries, and must keep a record of such tests as part of the Fire Safety Plan for inspection by the Fire Chief or a building official. Amplifier gain must be adjusted if necessary to re-establish the gain recorded upon acceptance testing, and batteries and power supplies must be tested under full load by generating communication traffic for a period of at least one (1) hour to verify that they will function properly during a power outage.
- 3.1.12 Additional tests or inspection of records may be conducted from time to time by the Fire Service at the discretion of the Fire Chief, after giving reasonable notice to the building owner. If communications within the building or within the Shadowed Area appear to have degraded, or if the tests show unacceptable communications performance, the owner of the building or structure is required to remedy the problem and restore the Amplification System in a manner consistent with the original acceptance criteria, unless the owner can demonstrate conclusively that the degradation is solely the result of external changes not under his or her control.

(c) Qualifications of Testing Personnel and Test (Measurement) Equipment

- 3.1.13 Tests must be performed by or under the direct supervision of a professional engineer registered in the Province of British Columbia and qualified in radio communications. Test reports must bear the seal of the engineer.
- 3.1.14 Portable radios used must be of a size and type as may be in use by the District Fire and Police services at the time and programmed to operate on an analogue test channel and on a digital test band channel as designated by the Fire Chief. SINAD, BER and signal strength measurements must be made using appropriate instrumentation acceptable to the Fire Chief and/or Officer in Charge of the North Vancouver RCMP detachment. Radios and measurement equipment must have been tested for conformance to design specifications within twelve months prior to the conduct of Amplification System acceptance tests or re-tests.

4. PERMIT AND OCCUPANCY CONDITIONS

- 4.1 A permit or occupancy permit will not be issued for any building or structure until the requirements of this bylaw have been met to the satisfaction of the Fire Chief.

5. RIGHT OF ENTRY

- 5.1 Every owner or occupant of a building must, at all reasonable times, permit building official or Fire Chief (or their designates) to enter into and inspect any building or structure to ascertain whether the regulations and provisions of this bylaw are being obeyed and any person who refuses entry shall be in violation of this bylaw and shall be liable to the penalties hereby imposed.

6. DEEMED NUISANCE

- 6.1 The construction or erection of a building or structure which interferes with the District's fire services, law enforcement or other emergency related telecommunications networks shall constitute a nuisance because it threatens the health, safety and welfare of the residents and visitors to the District of North Vancouver. In addition to any other remedies or enforcement procedures provided herein, the District may seek an injunction to restrain such a nuisance.

7. OFFENCES AND PENALTIES

- 7.1 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 shall be liable to the penalties hereby imposed and each day that such violation is permitted to exist shall constitute a separate offence.

Enforcement by Ticket

- 7.2 This bylaw is designated pursuant to section 264 of the Community Charter as a bylaw that may be enforced by means of a ticket in the form prescribed.

Bylaw Enforcement Officers

- 7.3 Bylaw Enforcement Officers are designated to enforce this bylaw by means of a ticket pursuant to section 264 of the Community Charter.

Ticketing

- 7.4 The words or expressions listed below in the "Designated Expression" column are authorized to be used on a ticket issued pursuant to section 264 of the Community Charter to designate an offence against the respective section of this bylaw appearing opposite in the "Section" column. The amounts appearing in the "Fine" column below are the fines set pursuant to section 264 of the Community Charter for contravention of the respective section of this bylaw appearing opposite in the "Section" column.

COLUMN 1	COLUMN 2	COLUMN 3
DESIGNATED EXPRESSION	SECTION	FINE
		\$
Erect, construct, change use or add to building without adequate radio coverage	2.1	200
Failure to install amplification system the meets guidelines	2.6	200
Failure to permit entry of inspector	5.1	200

READ a first time November 6th, 2017

READ a second time November 6th, 2017

READ a third time November 6th, 2017

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

The Corporation of the District of North Vancouver

Bylaw 8274

A bylaw to amend the Bylaw Notice Enforcement Bylaw 7458, 2004

The Council for The Corporation of The District of North Vancouver enacts the following:

Citation

1. This bylaw may be cited as "Bylaw Notice Enforcement Bylaw 7458, 2004, Amendment Bylaw 8274, 2017 (Amendment 32)".

Amendments

2. Schedule A to Bylaw 7458 is amended by deleting all offences from the Building Regulation Bylaw No. 7353 (2003) section and substituting the following in the appropriate alphabetical location in the table:

Bylaw Section	Description	A1 Penalty Amount (\$)	A2 Discounted Penalty (within 14 days) (\$)	A3 Late Payment (after 28 days) (\$)	A4 Compliance Agreement Available	A5 Compliance Agreement Discount (\$)
The following fines apply to the contraventions below:						
Construction Bylaw 8271, 2017						
4.4	Failure to comply with order by Chief Building Official	300	225	450	NO	N/A
4.7.1	Construct building without permit	400	300	600	NO	N/A
4.7.2	Change use without permit	200	150	300	NO	N/A
4.7.2	Change occupancy without permit	200	150	300	NO	N/A
4.7.3	Install commercial cooking facility without permit	300	225	450	NO	N/A
4.7.4	Install or modify fire alarm or sprinkler without permit	200	150	300	NO	N/A
4.7.5	Move building without permit	300	225	450	NO	N/A
4.7.6	Demolish building without permit	500	375	750	NO	N/A
4.7.7	Occupy new building without permit	400	300	600	NO	N/A
4.7.8	Install, construct, repair or alter fireplace or wood-burning appliance without permit	200	150	300	NO	N/A
4.7.9	Carry out mechanical work without permit	300	225	450	NO	N/A
4.7.10	Carry out electrical work without permit	300	225	450	NO	N/A
4.10	Failure to comply with conditions of permit	200	150	300	NO	N/A
4.26	Carry out work contrary to regulations	300	225	450	NO	N/A
4.29.1	Failure to allow inspector to enter	200	150	300	NO	N/A
4.29.2	Failure to have plans available at site	150	115	225	NO	N/A
4.29.3	Failure to post permit on site	150	115	225	NO	N/A
4.29.4	Failure to ensure work complies with permit or regulations	300	225	450	NO	N/A
4.29.5	Do work at variance with accepted plans	300	225	450		
4.29.6	Failure to manage sediment or erosion	300	225	450	NO	N/A
4.29.7	Failure to ensure catch basin fitted with sediment trap	200	150	300	NO	N/A
4.29.9	Failure to pay costs for damage to District property	300	225	450	NO	N/A
4.29.10	Failure to post signage with required information	200	150	300	NO	N/A

Bylaw Section	Description The following fines apply to the contraventions below:	A1 Penalty Amount (\$)	A2 Discounted Penalty (within 14 days) (\$)	A3 Late Payment (after 28 days) (\$)	A4 Compliance Agreement Available	A5 Compliance Agreement Discount (\$)
4.30	Failure to post signage that meets requirements	150	115	225	NO	N/A
4.31	Failure to notify re. change in registered professional	200	150	300	NO	N/A
4.32	Failure to suspend work when registered professional terminated	300	225	450	NO	N/A
4.33	Failure to notify re. change of ownership or address	150	115	225	NO	N/A
4.35	Failure to uncover work completed without inspection	200	150	300	NO	N/A
4.36	Cause damage to District property or works	400	300	600	NO	N/A
4.40	Failure to provide pest control report	150	115	225	NO	N/A
4.41	Failure to install required erosion and sediment controls during demolition	300	225	450	NO	N/A
4.42.1	Failure to clear debris from demolition site	200	150	300	NO	N/A
4.42.2	Failure to separate gypsum from other debris	200	150	300	NO	N/A
4.42.3	Failure to back-fill demolition site	200	150	300	NO	N/A
4.42.4	Failure to make demolition site level	200	150	300	NO	N/A
4.42.5	Failure to make demolition site stable from erosion	200	150	300	NO	N/A
4.42.6	Failure to leave demolition site in tidy condition	200	150	300	NO	N/A
4.46	Failure by constructor to comply with Building Code	300	225	450	NO	N/A
4.66	Failure to secure site after Stop Work Order Notice posted	200	150	300	NO	N/A
4.67	Carry out unauthorized work after Stop Work Order Notice posted	400	300	600	NO	N/A
4.68	Failure to leave Stop Work Order Notice posted	200	150	300	NO	N/A
4.70	Failure to cease occupancy when Do Not Occupy Notice posted	300	225	450	NO	N/A
5.20	Failure to fill in excavation	200	150	300	NO	N/A
5.24.3	Failure to obtain building review	200	150	300	NO	N/A
5.27	Failure to obtain building review prior to concealing work	300	225	450	NO	N/A
5.29	Occupying building with changed classification where no occupancy permit	300	225	450	NO	N/A
5.32	Occupy temporary building for more than 1 year	200	150	300	NO	N/A
5.32	Failure to remove temporary building	200	150	300	NO	N/A
5.34	Failure to provide sanitary facilities or required amenities	200	150	300	NO	N/A
5.34	Failure to keep sanitary facility in sanitary condition	150	115	225	NO	N/A
8.1	Construct or repair pool without permit	300	225	450	NO	N/A
8.2	Failure to enclose pool, spa or hot tub	200	150	300	NO	N/A
8.3	Failure to install self-latching gate to pool	200	150	300	NO	N/A
8.4	Failure to have locking cover on spa or hot tub	200	150	300	NO	N/A
8.5	Failure to maintain required fence, gate or cover for pool, spa or hot tub	200	150	300	NO	N/A
9.1	Construct or repair retaining wall without permit	200	150	300	NO	N/A
9.2	Failure to obtain or submit to District registered professional design or field review for retaining wall	200	150	300	NO	N/A
9.3	Excavation steeper than permitted	300	225	450	NO	N/A

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 (\$)
9.4	Deposit of fill material steeper than permitted	300	225	450	NO	N/A
10.1	Relocate building without building permit	250	190	375	NO	N/A
11.1	Failure to display address number per requirements	150	115	225	NO	N/A
11.4	Address numbers smaller than required	150	115	225	NO	N/A
11.5.1	Failure to number floors as required	150	115	225		
11.5.2	Failure to comply with suite numbering requirements by skipping numbers between adjacent floors	150	115	225	NO	N/A
11.5.3	Failure to number suites in increasing numerical sequence and clockwise fashion	150	115	225	NO	N/A
12.7.3	Failure to arrange plumbing to suit location of connection to public sewer	200	150	300	NO	N/A
12.9	Failure to obtain mechanical inspection	200	150	300	NO	N/A
12.14	Failure to request mechanical inspection	200	150	300	NO	N/A
12.16	Failure to connect drainage to municipal storm drainage system	400	300	600	NO	N/A
12.19	Permit material transitions upstream of main shut off valve within perimeter of building foundation	200	150	300	NO	N/A
12.20	Failure to ensure sanitary and storm sewer connections fitted with District standard inspection chamber at or near property line	300	225	450	NO	N/A
12.21	Permit corrugated, perforated and unperforated plastic pipe to convey storm water	300	225	450	NO	N/A
12.22	Permit connection of subsoil drainage system to drywell or rock pit without professional report accepted by Chief Building Official	300	225	450	NO	N/A
12.24.1	Failure to include dual or duplex pumps in new storm water pump installation	300	225	450	NO	N/A
12.24.2	Failure to include high level alarm audible within the premises for new storm water pump installation	200	150	300	NO	N/A
12.25	Failure to grant section 219 covenant for storm water pump	200	150	300	NO	N/A
12.27	Failure to include high level alarm audible within the premises for new sanitary pump installation	200	150	300	NO	N/A
12.31	Failure to sprinkler mercantile, industrial, assembly, institutional, business, personal service or residential occupancy building or building in Fire Limits Area as required	300	225	450	NO	N/A
12.32	Failure to sprinkler residential building up to four stories in height as required	300	225	450	NO	N/A
12.33	Failure to sprinkler one- or two-family residential occupancy as required	300	225	450	NO	N/A
12.38	Person who is not authorized performing gas work	300	225	450	NO	N/A
13.2	Person who is not authorized performing electrical work	300	225	450	NO	N/A
17.1	Interfere or obstruct enforcement of bylaw	300	225	450	NO	N/A

3. Schedule A to Bylaw 7458 is amended by adding, in alphabetical order, the following new section for offences against the Radio Amplifier Bylaw 8272:

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
		(\$)	(\$)	(\$)		(\$)
Radio Amplification Bylaw 8272, 2017						
2.1	Erect, construct, change use or add to building without adequate radio coverage	300	225	450	NO	N/A
2.6	Failure to install amplification system that meets guidelines	300	225	450	NO	N/A
5.1	Failure to permit entry of inspector	300	225	450	NO	N/A

READ a first time November 6th, 2017

READ a second time November 6th, 2017

READ a third time November 6th, 2017

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

This Act is current to October 25, 2017

See the [Tables of Legislative Changes](#) for this Act's legislative history, including any changes not in force.

BUILDING ACT

[SBC 2015] CHAPTER 2

Assented to March 25, 2015

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Part 1 — Interpretation and Application

Definitions

1 In this Act:

"administrative agreement" means an agreement under section 14
[administrative agreement];

"administrative authority" means the person with whom the
minister enters into an administrative agreement;

"appeal board" means the Building Code Appeal Board continued under section 19 [*Building Code Appeal Board*];

"building activity" means

- (a) the construction of new buildings, or
- (b) the alteration, repair or demolition of existing buildings;

"building regulation" means a regulation under section 3 (1) (a), (b) or (c) [*building regulations*];

"extraprovincial building credential" means an official recognition, conferred by another jurisdiction in Canada, that attests to an individual being qualified or authorized to perform in that jurisdiction work that is the same as or is substantially similar to the work of a qualified building official;

"local authority" means any of the following:

- (a) a municipality;
- (b) a regional district;
- (c) the Nisga'a Lisims Government;
- (d) a treaty first nation;
- (e) the board of governors of the University of British Columbia;
- (f) any other authority prescribed by regulation of the Lieutenant Governor in Council;

"qualified building official" means a person who is qualified as a building official under section 11 [*qualification as building official*];

"register" means the register established under section 12 [*register of qualified building officials*];

"registrar" means the registrar designated under section 12.

Application of Act

2 This Act does not apply to the following:

- (a) the City of Vancouver;
- (b) buildings in, on or about a mine, within the meaning of the *Mines Act*, other than bunkhouses, cook houses and related residential facilities.

Part 2 — Building Regulations

Building regulations

3 (1) The minister may make regulations as follows:

- (a) establishing one or more building codes;
- (b) regulating building generally for matters not included in a building code;
- (c) providing in respect of a matter or class of matters referred to in subsection (2) (f) that all or part of a building regulation
 - (i) does not apply, or
 - (ii) applies with modifications or additions.

(2) A regulation under subsection (1) may do one or more of the following:

- (a) prescribe requirements in respect of building activities;
- (b) prescribe requirements for the reduction of safety risks on sites where building activities occur;
- (c) prescribe requirements in respect of one or more of the following:
 - (i) the design of buildings or planning of building activities;
 - (ii) the inspection of buildings or building activities;
 - (iii) the designs, plans, notices, reports or other records relating to an activity referred to in subparagraph (i) or (ii);
 - (iv) the preparation, retention or inspection of records;
 - (v) any other matter that the minister considers necessary or advisable;
- (d) require that building activities, or activities referred to in paragraph (c) (i) or (ii), be performed by, or records referred to in paragraph (c) (iii) be prepared by, persons in specified classes of persons;
- (e) adopt by reference, in whole or in part and with any changes the minister considers necessary, any code or standard set by a provincial, national or international body or any other code or standard making body, as the code or standard stands at a specific date, as it stands at the time of adoption or as amended from time to time;
- (f) provide differently for different buildings, materials, geographic areas, local authorities, circumstances or other

matters, or classes of buildings, materials, geographic areas, local authorities, circumstances or other matters;

(g) establish classes of persons, buildings, materials, geographic areas, local authorities, circumstances or other matters;

(h) specify circumstances or conditions under which all or part of the regulation applies;

(i) authorize a specified local authority to provide, in a particular case, that requirements in a building regulation to provide for the future installation of a solar domestic hot water system do not apply in relation to a building to be newly constructed in the jurisdiction of the local authority if the local authority is satisfied that the site where the building will be constructed does not permit effective use of solar domestic hot water systems.

Enforcement of building regulations by local authorities

4 A building regulation has the same force and effect as the following:

(a) a bylaw, rule, law or prescribed instrument that is validly enacted by a local authority;

(b) a bylaw that is validly enacted under the *University Endowment Land Act*.

Restrictions on local authority jurisdiction

5 (1) In this section, "**local building requirement**" means a requirement in respect of building activities that is enacted by a local authority other than a treaty first nation or the Nisga'a Lisims Government.

(2) This section applies despite any of the following:

(a) the *Community Charter*;

(b) the *Fire Services Act*;

(c) the *Islands Trust Act*;

(d) the *Local Government Act*;

(e) the *University Act*;

(f) any other Act prescribed by regulation of the Lieutenant Governor in Council.

(3) Subject to subsection (4), a local building requirement has no effect to the extent that it relates to a matter that is

(a) subject to a requirement, in respect of building activities, of a building regulation, or

(b) prescribed by regulation as a restricted matter.

(4) Subsection (3) does not apply in relation to a matter that is prescribed by regulation as an unrestricted matter.

Regulation of building by treaty first nations

6 If, under the final agreement of a treaty first nation, the government is required to negotiate and attempt to reach agreement with the treaty first nation enabling the treaty first nation to establish standards, for buildings or structures to which a building regulation applies, that are different from or in addition to the standards established by the building regulation, the minister, on behalf of the government, may enter into an agreement reached in the negotiation.

Request by local authority for variation

7 (1) One or more local authorities may make a written request to the minister that the minister make a building regulation in respect of the local authority or local authorities, as applicable.

(2) The request under subsection (1) must

(a) be made in a form and manner acceptable to the minister, and

(b) be accompanied by any prescribed fee.

Not in force

8 [Not in force.]

Power to engage or retain consultants or specialists

9 (1) For the purposes of reviewing a request under section 7 or 8, the minister may engage or retain consultants or specialists the minister considers necessary and may determine their remuneration.

(2) The *Public Service Act* does not apply to a person engaged or retained under subsection (1).

Local authority building decisions

10 (1) In this section, "**exempt building professional**" means

(a) a member of a prescribed professional association, or

(b) a person in a prescribed class of persons.

(2) A local authority must not allow or require a person to decide on behalf of the local authority whether a matter conforms to a building regulation, unless

(a) the person is a qualified building official and the matter is within the person's current scope of practice as listed in the register, or

(b) the person is an exempt building professional.

(3) A person must not decide on behalf of a local authority whether a matter conforms to a building regulation, unless

(a) the person is a qualified building official and the matter is within the person's current scope of practice as listed in the register, or

(b) the person is an exempt building professional.

Part 3 — Building Officials

Division 1 — Building Officials

Qualification as building official

11 (1) In order to be qualified as a building official, a person must

(a) meet the following qualification requirements:

(i) pass one or more qualifying exams specified by the minister;

(ii) satisfy requirements, specified by the minister, respecting continuing professional development;

(iii) be a member in good standing of a prescribed professional association;

(iv) any additional qualification requirements prescribed by regulation,

(b) be entered in the register as a qualified building official, and

(c) not be suspended under Part 5 [*Administrative Penalties*].

(2) For the purposes of this section, the minister may, by regulation,

(a) establish different scopes of practice and different classes of building officials by scope of practice, and

(b) provide for the recognition of extraprovincial building credentials and the classification of holders of extraprovincial building credentials into the different classes of building officials.

(3) For the purposes of this section, the minister may

(a) specify different qualifying exams under subsection (1) (a) (i), held by the minister or any other person,

(i) for different scopes of practice, and

(ii) for persons in different classes of building officials who hold different extraprovincial building credentials,

(b) specify different requirements under subsection (1) (a) (ii) for different classes of building officials, including, without limitation, by reference to materials or training provided by the minister or any other person,

(c) hold qualifying exams referred to in subsection (1) (a) (i), and

(d) provide materials or training for continuing professional development referred to in subsection (1) (a) (ii).

(4) A person must pay the following fee to take a qualifying exam held under subsection (3) (c):

(a) to the minister, if the power to hold qualifying exams under subsection (3) (c) is not delegated under section 15 [*power to delegate administration*], a prescribed fee, if any;

(b) to the administrative authority, if the power to hold qualifying exams under subsection (3) (c) is delegated under section 15, a fee, if any, set by the administrative authority in accordance with section 17 [*power of administrative authority to set fees for matters under its administration*].

(5) A person must pay the following fee to receive materials or training provided under subsection (3) (d):

(a) to the minister, if the power to provide materials or training under subsection (3) (d) is not delegated under section 15, the prescribed fee, if any;

(b) to the administrative authority, if the power to provide materials or training under subsection (3) (d) is delegated under section 15, the fee, if any, set by the administrative authority in accordance with section 17.

Register of qualified building officials

12 (1) The minister must designate, in writing, an individual as the registrar.

(2) The *Public Service Act* and the *Public Service Labour Relations Act* do not, by virtue of a designation under subsection (1), apply to the individual designated under that subsection.

(3) The registrar must establish and maintain a register of persons who are qualified building officials that includes the following information about each person:

- (a) the name of the person;
- (b) the current scope of practice of the person and the date on which the person qualified for that scope of practice;
- (c) if applicable, each previous scope of practice of the person and the dates on which the person was qualified for that scope of practice;
- (d) any other information prescribed by regulation.

(4) The registrar must enter a person in the register if the person

- (a) applies in writing in the form required by the registrar,
- (b) pays the following annual fees, as applicable:
 - (i) to the minister, if the administration of some or all of the provisions referred to in section 15 (1) [*power to delegate administration*] is not delegated under that section, the annual fee prescribed for the purposes of section 13 (b) (i) [*annual report and annual fees*];
 - (ii) to the administrative authority, if the administration of some or all of the provisions referred to in section 15 (1) is delegated under that section, the annual fee set by the administrative authority for the purposes of section 13 (b) (ii), and
- (c) satisfies the registrar that the person meets the qualification requirements under section 11 (1) (a) [*qualification as building official*].

(5) The registrar must remove a person from the register if the person

- (a) fails to meet a qualification requirement under section 11 (1) (a),
- (b) fails to make an annual report in accordance with section 13 (a),

- (c) fails to pay an annual fee required under section 13 (b), or
- (d) requests to be removed from the register.

(6) A person entered in the register who ceases to be a member in good standing of a professional association referred to in section 11 (1) (a) (iii) must promptly notify the registrar in writing.

(7) For the purposes of this section,

- (a) the registrar may require a professional association referred to in section 11 (1) (a) (iii) to advise the registrar of whether a person is a member in good standing of the professional association, and

- (b) if required under paragraph (a) to advise the registrar of whether a person is a member in good standing, a professional association must do so.

(8) The registrar must retain, for the prescribed number of years, a record of the information referred to in subsection (3) for each person who is removed from the register.

(9) The registrar must make the register, and the records required to be retained under subsection (8), available to the public by one or both of the following means:

- (a) posting the register and records on a publicly accessible website maintained by or on behalf of the government;

- (b) having the register and records available for public inspection in the office of the registrar during regular office hours.

Annual report and annual fees

13 A person entered in the register must, annually, in accordance with the regulations,

- (a) make an annual report to the registrar declaring whether the person

- (i) is a member in good standing of the professional association referred to in section 11 (1) (a) (iii) *[qualification as building official]*, and

- (ii) has completed any applicable continuing professional development requirements referred to in section 11 (1) (a) (ii), and

- (b) pay the following annual fees, as applicable:

(i) to the minister, if the administration of some or all of the provisions referred to in section 15 (1) *[power to delegate administration]* is not delegated under that section, the annual fee prescribed in respect of that administration;

(ii) to the administrative authority, if the administration of some or all of the provisions referred to in section 15 (1) is delegated under that section, the annual fee set by the administrative authority in accordance with section 17 *[power of administrative authority to set fees for matters under its administration]* in respect of that administration.

Division 2 — Administration

Administrative agreement

14 (1) Subject to the approval of the Lieutenant Governor in Council unless that approval is not required by subsection (2), the minister may enter into an agreement with a person respecting the administration by the person of some or all of the provisions of Division 1 *[Building Officials]*, Part 5 *[Administrative Penalties]* and the regulations contemplated by Division 1 or Part 5.

(2) Approval of the Lieutenant Governor in Council is not required in the case of an administrative agreement that

(a) is entered into by the minister with a person

(i) with whom the minister has previously entered into an administrative agreement that is in effect, and

(ii) to whom a delegation under section 15 *[power to delegate administration]* has been made that is in effect, and

(b) does not contemplate a further delegation, or a rescission of a delegation, under section 15.

(3) An administrative agreement must include provisions that specify all of the following:

(a) the services to be delivered by the administrative authority;

(b) the performance objectives of the administrative authority;

(c) the terms of the financial arrangement between the administrative authority and the government, including the collection and payment of fees due to the administrative

authority or the government and any other financial transitional matters;

(d) the right of access of the administrative authority to records created by the government and the right of access of the government to records created by the administrative authority;

(e) the requirements for records management by the administrative authority;

(f) the requirement that the administrative authority report to the government any matters in respect of the operation of powers administered by the administrative authority under this Act;

(g) a requirement that the administrative authority carry adequate insurance;

(h) provisions of indemnification between the administrative authority and the government;

(i) the obligations of the parties if the agreement is terminated;

(j) the time period of the agreement or the procedure for the review of the agreement by the administrative authority and the government;

(k) procedures for the settlement of disputes;

(l) a specification of the liability of the administrative authority arising out of the administrative authority carrying out its administration of this Act and the regulations;

(m) any other matter prescribed by regulation of the Lieutenant Governor in Council.

(4) The administrative authority must comply with the terms of the administrative agreement, and may not carry out the administration referred to in subsection (1) except in accordance with that agreement.

(5) Subject to the approval of the Lieutenant Governor in Council, the minister may amend or revoke the administrative agreement without the consent of the administrative authority if the minister gives the administrative authority prior written notice.

Power to delegate administration

15 (1) If the minister enters into an administrative agreement with a person, the Lieutenant Governor in Council may, by regulation, delegate to the person the administration of some or all of the provisions of Division 1

[Building Officials], Part 5 *[Administrative Penalties]* and the regulations contemplated by Division 1 or Part 5, including any power, function or duty of the minister, except a power to make regulations.

(2) If an amendment to a delegation regulation could substantively affect an administrative agreement, the minister must give reasonable notice to the administrative authority of the proposed amendment and must consult on it with the administrative authority.

(3) If the Lieutenant Governor in Council repeals a regulation under subsection (1), the administrative agreement is terminated.

Delegation does not make person an agent of government

16 A person to whom a delegation under section 15 *[power to delegate administration]* is made is not an agent of the government for the purposes of the delegation.

Power of administrative authority to set fees for matters under its administration

17 (1) Despite any power of the Lieutenant Governor in Council or the minister to prescribe fees for matters under the administration of the government, the administrative authority may set fees in accordance with a fee-setting process established by the administrative authority for any matter required under the administrative authority's administration.

(2) The fee-setting process established under subsection (1) must be in accordance with criteria that are established by regulation.

Power to order audit

18 The Lieutenant Governor in Council may direct a person to conduct an audit of the person to whom administration is delegated under section 15 *[power to delegate administration]*.

Part 4 — Building Code Appeal Board

Building Code Appeal Board

19 (1) The Building Code Appeal Board is continued, consisting of the following members appointed by the minister after a merit-based process:

- (a) one member designated as the chair;
- (b) one member designated as the vice chair;
- (c) other members appointed after consultation with the chair.

(2) If the appeal board sits as a tribunal under section 26 (3) of the *Administrative Tribunals Act*, a majority of the appeal board is a quorum.

(3) The following provisions of the *Administrative Tribunals Act* apply to the appeal board:

- (a) Part 1 *[Interpretation and Application]*;
- (b) Part 2 *[Appointments]*, except section 9 *[responsibilities of the chair]*;
- (c) Part 3 *[Clustering]*;
- (d) section 11 *[general power to make rules respecting practice and procedure]*;
- (e) section 13 *[practice directives tribunal may make]*;
- (f) section 18 *[failure of party to comply with tribunal orders and rules]*;
- (g) section 26 *[organization of tribunal]*;
- (h) section 27 *[staff of tribunal]*;
- (i) section 28 *[facilitated settlement]*;
- (j) section 29 *[disclosure protection]*;
- (k) section 32 *[representation of parties to an application]*;
- (l) section 36 *[form of hearing of application]*;
- (m) section 39 *[adjournments]*;
- (n) section 44 *[tribunal without jurisdiction over constitutional questions]*;
- (o) section 46.3 *[tribunal without jurisdiction to apply the Human Rights Code]*;
- (p) section 51 *[final decision]*;
- (q) section 56 *[immunity protection for tribunal and members]*;
- (r) section 58 *[standard of review with privative clause]*;
- (s) section 59.1 *[surveys]*;
- (t) section 59.2 *[reporting]*;
- (u) section 60 (1) (g) to (i) and (2) *[power to make regulations]*.

Appeals

20 (1) The following persons may, by filing an application with the appeal board in accordance with this section, appeal a decision of a local authority on whether a matter conforms to a building regulation:

- (a) the owner of the building to which the decision relates;
- (b) a person, other than an employee, retained under contract or subcontract by the person referred to in paragraph (a) to provide services in respect of the design, construction, alteration, repair or demolition of the building.

(2) An application under subsection (1) must

- (a) be in writing or in another form authorized by the rules of the appeal board,
- (b) include any information prescribed by regulation,
- (c) be signed by the applicant or the applicant's counsel or agent, and
- (d) be accompanied by any applicable application fee prescribed by regulation.

Appeal board decisions

21 (1) The appeal board may confirm, vary or reverse a decision under appeal.

(2) The decision of the appeal board is final and binding and not open to review in any court.

Part 5 — Administrative Penalties

Definition

22 In this Part, "**Safety Standards Appeal Board**" means the Safety Standards Appeal Board established under the *Safety Standards Act*.

Administrative penalties

23 (1) The registrar may impose an administrative penalty on a person if the registrar is satisfied on a balance of probabilities that the person has contravened

- (a) section 10 (2) or (3) [*local authority building decisions*], or
- (b) subsection (2) of this section.

(2) A person must not knowingly give false or misleading information to the registrar

(a) in an application under section 12 (4) [*register of qualified building officials*], or

(b) in a report under section 13 (a) [*annual report and annual fees*].

(3) Before the registrar imposes an administrative penalty on a person, the registrar must consider the following:

(a) previous enforcement actions for contraventions of a similar nature by the person;

(b) the gravity and magnitude of the contravention;

(c) whether the contravention was repeated or continuous;

(d) whether the contravention was deliberate;

(e) any economic benefit derived by the person from the contravention;

(f) the person's efforts to correct the contravention.

(4) The registrar may not impose an administrative penalty on a person if the person demonstrates to the satisfaction of the registrar that the person exercised due diligence to prevent the contravention.

Available administrative penalties

24 (1) A local authority on whom an administrative penalty is imposed is liable to a monetary penalty of not more than the amount prescribed by regulation of the Lieutenant Governor in Council.

(2) An individual on whom an administrative penalty is imposed is liable to one or more of the following administrative penalties:

(a) a monetary penalty of not more than the amount prescribed by regulation of the Lieutenant Governor in Council;

(b) a suspension, for a period of time the registrar considers appropriate, of the individual's status as a qualified building official;

(c) removal from the register, if applicable, and a permanent ban on being entered in the register.

Notice of administrative penalty

25 If the registrar imposes an administrative penalty on a person, the registrar must serve on the person a notice imposing the administrative penalty that specifies the following:

- (a) the contravention;
- (b) the administrative penalty imposed;
- (c) if a monetary penalty is imposed,
 - (i) the amount of the monetary penalty, and
 - (ii) the date by which the monetary penalty must be paid;
- (d) if a suspension is imposed, the period of time during which the suspension has effect;
- (e) if a ban is imposed, the date on which the ban takes effect;
- (f) the right of the person to request a reconsideration under section 29.

Due date of monetary penalty

26 A person on whom a monetary penalty is imposed must pay the monetary penalty to the Minister of Finance within 30 days after the latest of the following dates, as applicable:

- (a) the date on which the notice under section 25 is served on the person;
- (b) if the person requests a reconsideration under section 29, the date on which the notice referred to in section 29 (4) (b) is served on the person, unless the monetary penalty is rescinded under section 29 (4) (a);
- (c) if the person commences an appeal under section 30, the date on which the decision of the Safety Standards Appeal Board is served on the person, unless the decision appealed is reversed by the Safety Standards Appeal Board.

Enforcement of monetary penalty

27 (1) On the date that a monetary penalty is payable under section 26, the penalty constitutes a debt payable to the Minister of Finance by the person on whom the penalty is imposed.

(2) If a person fails to pay a monetary penalty as required under section 26, the Minister of Finance may file with the Provincial Court a certified copy of the notice imposing the monetary penalty and, on being filed, the

notice has the same force and effect, and all proceedings may be taken on the notice, as if it were a judgment of that court.

(3) If an individual who is a qualified building official fails to pay a monetary penalty as required under section 26, the registrar may suspend the individual's status as a qualified building official until the penalty is paid.

(4) For the purposes of section 11 (1) (c) [*qualification as building official*], if the registrar suspends an individual's status as a qualified building official under subsection (3) or section 23 [*administrative penalties*], the registrar must indicate in the register that the individual's status is suspended.

Limitation period

28 (1) The time limit for giving a notice imposing an administrative penalty is 2 years after the date on which the act or omission alleged to constitute the contravention first came to the attention of the registrar.

(2) A certificate purporting to have been issued by the registrar and certifying the date referred to in subsection (1) is proof of that date.

Reconsiderations

29 (1) A person who receives notice under section 25 of an administrative penalty may, within 30 days after the notice is served on the person, request the registrar to reconsider the administrative penalty.

(2) A request under subsection (1) must be in writing and must identify the error the person believes was made or the other grounds on which a reconsideration is requested.

(3) On receipt by the registrar of a request under subsection (1), the administrative penalty to be reconsidered as a result of the request

(a) is stayed, if the administrative penalty is a monetary penalty, and

(b) is not stayed, if the administrative penalty is not a monetary penalty, unless the registrar orders that the administrative penalty is stayed.

(4) As soon as practicable after receiving a request under subsection (1), the registrar must

(a) confirm, vary or rescind the administrative penalty, and

(b) serve on the person a notice of the following:

- (i) the decision of the registrar;
- (ii) the reasons for the decision;
- (iii) the right of the person to appeal the decision under section 30.

(5) The registrar may conduct a written, electronic or oral reconsideration, or any combination of them, as the registrar, in his or her sole discretion, considers appropriate.

Appeals

30 (1) A person who receives notice under section 29 (4) (b) of a decision of the registrar may, within 30 days after the notice is served on the person, appeal the decision to the Safety Standards Appeal Board.

(2) Subject to subsection (3), the commencement of an appeal does not operate as a stay of the decision being appealed, unless the Safety Standards Appeal Board orders otherwise.

(3) The commencement of an appeal with respect to an administrative penalty that is a monetary penalty operates as a stay of the decision under section 29 (4) (a) that did not rescind the administrative penalty.

(4) Subject to this Act, the following provisions of the *Safety Standards Act* apply to an appeal under this Part:

- (a) Part 8 [*Safety Standards Appeal Board*];
- (b) Division 2 [*Appeals to the Safety Standards Appeal Board*] of Part 9, except the following:
 - (i) section 51 [*right to appeal*];
 - (ii) section 52 (1) [*board must consider public safety*];
 - (iii) section 54 [*appeal does not operate as stay*];
 - (iv) section 62 [*enforcement of appeal board orders*].

(5) Despite subsection (4), the following provisions of the *Administrative Tribunals Act* incorporated under section 44 [*application of Administrative Tribunals Act*] of the *Safety Standards Act* do not apply to an appeal under this Part:

- (a) section 26 [*organization of tribunal*];
- (b) section 27 [*staff of tribunal*];
- (c) section 30 [*tribunal duties*];
- (d) section 33 [*interveners*];

- (e) section 47 (1) (a) and (b) [*costs payable to party or intervener*];
- (f) section 48 [*maintenance of order at hearings*];
- (g) section 49 [*contempt proceeding for uncooperative witness or other person*].

Part 6 — Cost-Recovery

Division 1 — Requests for Variations

Definitions

31 In this Division:

"calculated amount", in respect of a request under section 7 or 8, means the amount calculated under section 34 (3) (a) [*reconciliation of recoverable costs*];

"received amount", in respect of a request under section 7 or 8, means the amount referred to in section 34 (1) (b);

"recoverable cost" means a cost that is recoverable according to section 32;

"responsible person", in respect of a request under section 7 or 8, means the local authority or person who made the request;

"specified minimum amount" means an amount prescribed for the purposes of section 34 (3) (b) (ii) and (c).

Costs that may be recovered

32 (1) Subject to subsection (2), the following costs to the government arising from a request under section 7 or 8 are recoverable under this Division:

- (a) the reasonable costs of an employee of the government participating in the determination of the request, calculated on an hourly basis in accordance with the prescribed rate;
- (b) the reasonable costs to engage or retain a consultant or specialist under section 9 in relation to the request.

(2) A cost is not recoverable under this Division if the service to which the cost relates is performed before the responsible person pays an amount to the minister in response to a notice under section 33 (1) (b).

Request in respect of recoverable costs

- 33** (1) The minister may, after conducting a preliminary review of a request under section 7 or 8,
- (a) estimate the recoverable costs to determine the request,
 - (b) serve on the responsible person written notice of
 - (i) the amount estimated under paragraph (a),
 - (ii) the date by which the minister requires that amount to be paid, and
 - (iii) the liability that the responsible person may incur under section 34 if the responsible person pays an amount in response to the notice, and
 - (c) dismiss the request if the responsible person fails to pay the amount estimated under paragraph (a) by the date specified in the notice.
- (2) An estimate under subsection (1) (a) must be made in accordance with the regulations.
- (3) An amount received by the minister in response to a notice under subsection (1) (b) is conclusively deemed not to be trust funds within the meaning of the *Financial Administration Act* and must be paid into the consolidated revenue fund.

Reconciliation of recoverable costs

- 34** (1) This section does not apply in relation to a request under section 7 or 8, unless
- (a) notice is served under section 33 (1) (b) in respect of the request, and
 - (b) the responsible person pays an amount to the minister in response to that notice.
- (2) If the minister considers, at any time before a request under section 7 or 8 is determined or withdrawn, that the recoverable costs to determine the request are likely to exceed the amount estimated under section 33 (1) (a), the minister must promptly serve on the responsible person written notice of the amount by which the minister estimates those recoverable costs will exceed the amount estimated under section 33 (1) (a).
- (3) Within the prescribed number of days after a request under section 7 or 8 is determined or withdrawn, the minister must

- (a) calculate the recoverable costs arising from the request,
- (b) serve on the responsible person written notice that
 - (i) states the calculated amount and the difference between the calculated amount and the received amount, and
 - (ii) if the calculated amount exceeds the received amount by at least the specified minimum amount, requires the responsible person to pay the difference between those amounts within 30 days after the notice is served on the responsible person, and
- (c) if the received amount exceeds the calculated amount by at least the specified minimum amount, refund to the responsible person from the consolidated revenue fund the difference between those amounts.

(4) A calculation under subsection (3) (a) must be made in accordance with the regulations.

(5) A responsible person who is required by a notice under subsection (3) (b) to pay an amount must do so within 30 days after the notice is served on the responsible person.

(6) On the date that an amount is payable under subsection (5), the amount constitutes a debt payable to the government by the responsible person.

(7) If the responsible person fails to pay an amount as required under subsection (5), the minister may file with the Supreme Court or the Provincial Court a certified copy of the notice under subsection (3) (b) and, on being filed, the notice has the same force and effect, and all proceedings may be taken on the notice, as if it were a judgment of that court.

Division 2 — Not in force

Not in force

35 to 38 [Not in force.]

Part 7 — General

How to serve notices

39 (1) All notices required under this Act to be served on a person

- (a) must be served in a manner prescribed by regulation of the Lieutenant Governor in Council, and
 - (b) if served in a manner referred to in paragraph (a), are deemed to be received by the person at the time prescribed for the manner by regulation of the Lieutenant Governor in Council.
- (2) On application by any person, the Supreme Court may, for the purposes of this Act,
 - (a) give directions on how to serve a notice on a person, or
 - (b) dispense with service of a notice if the court is satisfied that the person already has actual notice of the contents of the notice and is avoiding service.
- (3) If the court makes an order dispensing with service of a notice, the notice takes effect without being served.
- (4) This section does not apply to a notice or other document of
 - (a) the appeal board, or
 - (b) the Safety Standards Appeal Board under Part 5 *[Administrative Penalties]*.

Offence Act

40 Section 5 of the *Offence Act* does not apply to this Act or the regulations.

Regulations of minister

- 41** (1) The minister may make regulations referred to in section 41 of the *Interpretation Act*.
- (2) Without limiting any other provision of this Act, the minister may make regulations as follows:
- (a) respecting any matter for which regulations are contemplated by this Act, other than matters for which regulations are expressly contemplated to be made by the Lieutenant Governor in Council;
 - (b) prescribing matters as restricted for the purposes of section 5 (3) (b) *[restrictions on local authority jurisdiction]* or unrestricted for the purposes of section 5 (4);
 - (c) for the purposes of section 7 (2) (b) *[request by local authority for variation]* or 8 (2) (b) *[request by person for variation]*, establishing classes of requests and prescribing different fees for those different classes;

- (d) specifying matters in relation to which a person may, or may not, make a request under section 8 (1);
- (e) establishing classes of persons for the purposes of section 10 (1) (b) [*local authority building decisions*];
- (f) for the purposes of section 11 (4) (a) or (5) (a) [*qualification as building official*], prescribing different fees by reference to different scopes of practice or different classes of building officials;
- (g) prescribing an annual fee for the purposes of sections 12 (4) (b) (i) [*register of qualified building officials*] and 13 (b) (i) [*annual report and annual fees*];
- (h) for the purposes of section 13, respecting the form and manner in which, and the time when, an annual report must be made and the time when the annual fee must be paid;
- (i) for the purposes of section 20 (2) (b) or (d) [*appeals*], establishing classes of applications and providing differently for those different classes;
- (j) respecting estimations and calculations of recoverable costs for the purposes of Part 6 [*Cost-Recovery*];
- (k) defining a word or expression used but not defined in this Act.

(3) Section 3 (2) (f) to (h) applies in relation to regulations under subsection (2) (b) of this section.

Regulations of Lieutenant Governor in Council

- 42** (1) The Lieutenant Governor in Council may make regulations referred to in section 41 of the *Interpretation Act*.
- (2) Without limiting subsection (1), the Lieutenant Governor in Council may make regulations respecting any matter for which regulations are expressly contemplated by this Act to be made by the Lieutenant Governor in Council.

Part 8 — Transitional Provisions and Consequential and Related Amendments

Transitional Provisions

Transition — restrictions on local authority jurisdiction

- 43** Section 5 [*restrictions on local authority jurisdiction*] does not apply in relation to a local authority until the date that is 2 years after the date the section comes into force.

Transition — local authority building decisions

- 44** (1) In this section:

"first cutoff date" means the date that is 6 months after the date section 10 comes into force;

"second cutoff date" means the date that is 4 years after the date section 10 comes into force.

- (2) Section 10 [*local authority building decisions*] does not apply,
- (a) before the first cutoff date, in relation to a person, and
 - (b) on any date that is after the first cutoff date and before the second cutoff date, in relation to a person who is a member in good standing of a professional association referred to in section 11 (1) (a) (iii) [*qualification as building official*].

Transition — Building Code Appeal Board

- 45** Despite section 19 [*Building Code Appeal Board*], the appeal board continued by that section consists of the chair of the appeal board and the members of the appeal board until a vice chair of the appeal board is appointed under that section.

Consequential and Related Amendments

[*Note: See Table of Legislative Changes for the status of sections 46 to 62.*]

Section(s)	Affected Act
46	<i>Building Officials' Association Act</i>
47-50	<i>Community Charter</i>
51	<i>Homeowner Protection Act</i>
52-57	<i>Local Government Act</i>
58	<i>Public Sector Employers Act</i>
59-60	<i>Strata Property Act</i>
61	<i>University Endowment Land Act</i>
62	<i>Wood First Act</i>

Commencement

63 This Act comes into force by regulation of the Lieutenant Governor in Council.

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B.C. Reg. 131/2016
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Building Act

BUILDING ACT GENERAL REGULATION

[includes amendments up to B.C. Reg. 139/2017, April 7, 2017]

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Schedule

Definitions

1 (1) In this regulation:

"Act" means the *Building Act*;

"building code" means Book I (General) of the British Columbia Building Code established by the British Columbia Building Code Regulation, B.C. Reg. 264/2012;

"compliance decision" means a decision made on behalf of a local authority whether a matter conforms to a building regulation;

"cost-recoverable government employee" means a government employee for whom an hourly rate is prescribed in section 4;

"heritage building" means any of the following:

(a) a building that is protected heritage property;

(b) a building that is subject to temporary heritage protection under section 606 (1) [*order for temporary protection*] or 608 (1) [*heritage control periods for temporary protection*] of the *Local Government Act*;

(c) a building that is subject to an agreement under section 610 (1) [*heritage revitalization agreements*] of the *Local Government Act*;

(d) a building that is identified in a register of heritage property established under section 598 (1) [*community heritage register*] of that Act;

"plumbing code" means Book II (Plumbing Systems) of the British Columbia Building Code established by the British Columbia Building Code Regulation;

"protected heritage property" has the same meaning as in section 1 of Schedule 1 to the *Local Government Act*.

(2) In the Act and this regulation, **"conform"**, in relation to the building code, means comply with the building code within the meaning of compliance with the building code described in Article 1.2.1.1. of Division A of the building code.

[am. B.C. Reg. 52/2017, App. 1, s. 1.]

Part 1 — Local Authority Jurisdiction

Unrestricted matters

- 2 The following matters are prescribed for the purposes of section 5 (4) of the Act:
- (a) parking stalls for persons with disabilities;
 - (b) the following matters as they relate to the design of access routes for fire department vehicles:
 - (i) the width of an access route;
 - (ii) the centreline radius of an access route;
 - (iii) the overhead clearance of an access route;
 - (iv) the change of the gradient of an access route;
 - (v) the loads that an access route is designed to bear and the material with which an access route is surfaced;
 - (vi) the length above which a dead-end portion of an access route requires turnaround facilities;
 - (b.1) in the case of a building not described in Sentence 3.2.5.7.(2) of Division B of the building code, water supply for firefighting;
 - (b.2) in the case of a building in a flood plain designated under section 524 (2) [*requirements in relation to flood plain areas*] of the [Local Government Act](#), setback from a watercourse, body of water or dike of any landfill or structural support required to elevate a floor system or pad above the flood level specified for the flood plain;
 - (b.3) in the case of a heritage building, any matter as it relates to the heritage value or heritage character of the building;
 - (c) in the case of a building in a development permit area designated under section 488 (1) (b) of the [Local Government Act](#), the following matters as they relate to wildfire hazard:
 - (i) form;
 - (ii) exterior design;
 - (iii) finish;
 - (d) in the case of a building in a development permit area designated under section 488 (1) (d), (e), (f) or (g) of the

Local Government Act, the following matters as they relate to the character of the development:

- (i) form;
- (ii) exterior design;
- (iii) finish;

(e) in the case of a building in a development permit area designated under section 488 (1) (h), (i) or (j) of the *Local Government Act*, the following matters as they relate to energy or water conservation or the reduction of greenhouse gas emissions:

- (i) form;
- (ii) exterior design;
- (iii) any matter as it relates to machinery, equipment and systems external to the building;

(f) any matter as it relates to a district energy system;

(g) any matter as it relates to limiting the transmission into a building of sound that originates outside the building;

(h) radio repeater systems for emergency communications.

[am. B.C. Reg. 52/2017, App. 1, s. 2.]

Time-limited unrestricted matters

2.1 (1) In this section, "**adaptable dwelling unit**" has the same meaning as in Article 1.4.1.2. of Division A of the building code.

(2) The following matters are prescribed for the purposes of section 5 (4) *[restrictions on local authority jurisdiction]* of the Act in the areas described in subsection (3) of this section:

- (a) fire sprinklers and fire sprinkler systems;
- (b) any matter as it relates to the accessibility of a building to persons with disabilities;
- (c) adaptable dwelling units.

(3) A matter prescribed under subsection (2) is unrestricted in a geographic area if a local building requirement that relates to the matter

- (a) applies to the geographic area,
- (b) was enacted on or before December 15, 2017, and
- (c) has not been amended after that date as it relates to the matter.

[en. B.C. Reg. 52/2017, App. 1, s. 3.]

Energy conservation unrestricted

2.2 (1) In this section, "**local authority legislation**", in respect of a local authority, means an enactment that authorizes the local authority to make bylaws or other enactments with respect to buildings and other structures.

(2) Subject to subsection (3) of this section, the following matters are unrestricted for the purposes of section 5 (4) [*restrictions on local authority jurisdiction*] of the Act:

- (a) the conservation of energy;
- (b) the reduction of greenhouse gas emissions.

(3) A local authority may enact, to the extent permitted by its local authority legislation, a local building requirement with respect to a matter referred to in subsection (2) subject to both of the following conditions:

- (a) the local building requirement may not require buildings within the jurisdiction of the local authority to be constructed except in conformance with a Step described in Article 9.36.6.3. or 10.2.3.3. of Division B of the building code;
- (b) the local building requirement may not modify a requirement of, or impose requirements in addition to those set out in, Subsection 9.36.6. or 10.2.3. of Division B of the building code.

[en. B.C. Reg. 139/2017, s. 1.]

Part 2 — Cost Recovery

Specified minimum amount

3 The specified minimum amount for the purposes of section 34 (3) (b) (ii) and (c) of the Act is \$52.50.

Rates for government employees

4 For the purposes of section 32 (1) (a) of the Act, the prescribed rate for a government employee identified by title and classification in Column 1 of the Table is the hourly rate set out opposite in Column 2.

Table

Item	Column 1 Government Employee	
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	Title	Classification	Column 2 Hourly Rate
1	Administrative Assistant	Clerk 9	\$49.81
2	Assistant Deputy Minister	Assistant Deputy Minister Band B	\$100.19
3	Codes Administrator	Scientific/Technical Officer 18	\$57.97
4	Codes Administrator	Scientific/Technical Officer 21	\$61.30
5	Codes Administrator	Scientific/Technical Officer 24	\$65.01
6	Director	Business Leadership	\$79.08
7	Executive Director	Strategic Leadership	\$89.41
8	Manager	Applied Leadership	\$70.70
9	Manager	Business Leadership	\$79.08
10	Office Manager	Clerk 14	\$54.04
11	Policy Analyst	Administrative Officer 18 or Research Officer 18	\$57.97
12	Policy Analyst	Administrative Officer 21 or Research Officer 21	\$61.30
13	Policy Analyst	Administrative Officer 24 or Research Officer 24	\$65.01
14	Senior Codes Administrator	Scientific/Technical Officer 27	\$69.11
15	Senior Policy Analyst	Policy Analyst Social/Information/Health 27	\$70.67

Estimation of recoverable costs

- 5** (1) An estimate under section 33 (1) (a) of the Act in relation to a request under section 7 or 8 must be based on and set out the following information, as applicable:

(a) for each cost-recoverable government employee that the minister expects to participate in the determination of the request,

- (i) the title and classification of the employee,
- (ii) the rate prescribed under section 4 of this regulation for the employee,
- (iii) a brief description of the work that the employee is expected to do in relation to the request, and
- (iv) the amount of time that the employee is expected to spend on the work referred to in subparagraph (iii);

(b) for each consultant and specialist that the minister expects to engage in relation to the request,

- (i) the occupation of the consultant or specialist,
- (ii) a brief description of the work that the consultant or specialist is expected to do in relation to the request, and
- (iii) the expected amount of the recoverable costs of the consultant or specialist's engagement in relation to the request.

(2) A copy of the estimate prepared in accordance with subsection (1) must be included with the notice referred to in section 33 (1) (b) of the Act.

Calculation of recoverable costs

6 (1) For the purposes of section 34 (3) of the Act, the prescribed number of days is 45 days.

(2) A calculation under section 34 (3) (a) of the Act in relation to a request under section 7 or 8 must be based on and set out the following, as applicable:

- (a) for each cost-recoverable government employee that participates in the determination of the request,
 - (i) the title and classification of the employee,
 - (ii) the rate prescribed under section 4 of this regulation for the employee,
 - (iii) a brief description of the work that the employee did in relation to the request, and
 - (iv) the time that the employee spent on the work referred to in subparagraph (iii);
- (b) for each consultant and specialist engaged in relation to the request,
 - (i) the occupation of the consultant or specialist,
 - (ii) a brief description of the work that the consultant or specialist did in relation to the request, and
 - (iii) the recoverable costs of the consultant or specialist's engagement in relation to the request.

(3) A copy of the calculation prepared in accordance with subsection (2) must be included with the notice referred to in section 34 (3) (b) of the Act.

Part 3 — Building Officials

Division 1 — Exempt Building Professionals

Architects

- 7 For the purposes of section 10 (1) (a) [*prescribed professional association*] of the Act, the Architectural Institute of British Columbia is prescribed.

[en. B.C. Reg. 52/2017, App. 1, s. 4.]

Engineers

- 8 (1) In this section, "**professional engineer**" has the same meaning as in section 1 (1) of the *Engineers and Geoscientists Act*.

(2) For the purposes of section 10 (1) (b) [*prescribed classes of persons*] of the Act, the following classes of persons are prescribed:

- (a) professional engineers;
- (b) holders of limited licences under the *Engineers and Geoscientists Act* whose scope of practice includes consulting on building regulations.

[en. B.C. Reg. 52/2017, App. 1, s. 4.]

Other building professionals

- 9 (1) In this section, "**certificate of qualification**" has the same meaning as in section 1 of the *Safety Standards Act*.

(2) For the purposes of section 10 (1) (b) of the Act, the following classes of persons are prescribed:

- (a) individuals appointed under section 11 [*safety officers*] of the *Safety Standards Act* by a local authority, if the individuals
 - (i) hold a certificate of qualification for regulated work in respect of electrical equipment, gas systems or gas equipment, and
 - (ii) make compliance decisions only in relation to matters within the scope of the certificate of qualification;
- (b) individuals retained as employees or independent contractors by a fire department of a local authority, or who are volunteers with a fire department of a local authority, if the individuals make compliance decisions only in relation to

the fire prevention and response matters addressed in the following provisions of Division B of the building code:

- (i) Sentence 3.2.3.1.(8) *[limiting distance]*;
- (ii) Subsection 3.2.4. *[fire alarm and detection systems]*;
- (iii) Subsection 3.2.5. *[provisions for firefighting]*;
- (iv) Subsection 3.2.6. *[additional requirements for high buildings]*;
- (v) Subsection 3.2.7. *[lighting and emergency power systems]*;
- (vi) Subsection 3.4.5. *[exit signs]*;
- (vii) Article 3.4.6.19. *[floor numbering]*;
- (viii) Clauses 6.2.1.4.(1)(a) and (c) *[installation standards]*;
- (ix) Article 6.2.1.5. *[fireplaces]*;
- (x) Article 6.2.2.7. *[commercial cooking equipment]*;
- (xi) Section 6.3. *[chimneys and venting equipment]*;
- (xii) Subsection 9.9.11. *[signs]*;
- (xiii) Article 9.9.12.2. *[required lighting in egress facilities]*;
- (xiv) Article 9.9.12.3. *[emergency lighting]*;
- (xv) Article 9.10.1.4. *[items under Part 6 jurisdiction]*;
- (xvi) Clauses 9.10.14.3.(1)(a) and (2)(b) *[limiting distance and fire department response]*;
- (xvii) Clauses 9.10.15.3.(1)(a) and (2)(b) *[limiting distance and fire department response]*;
- (xviii) Subsection 9.10.18. *[alarm and detection systems]*;
- (xix) Subsection 9.10.19. *[smoke alarms]*;
- (xx) Subsection 9.10.20. *[firefighting]*;
- (xxi) Article 9.10.21.7. *[smoke detectors]*;
- (xxii) Article 9.10.21.8. *[portable fire extinguishers]*;
- (xxiii) Article 9.10.21.9. *[hose stations]*;
- (xxiv) Clause 9.33.5.2.(1)(a) *[installation of oil burning equipment]*;
- (xxv) Clause 9.33.5.2.(1)(c) *[installation of solid-fuel burning appliances and equipment]*;

(xxvi) Article 9.33.5.4. *[fireplaces]*;

(xxvii) Subsection 9.33.10. *[chimneys and venting equipment]*;

(c) individuals retained as employees or independent contractors by a local authority to act as a building official responsible for plumbing, if the individuals make compliance decisions only in relation to the fire suppression matters addressed in the following provisions of Division B of the building code:

(i) Article 3.2.5.7. *[water supply]*;

(ii) Article 3.2.5.8. *[standpipe systems]*;

(iii) Article 3.2.5.9. *[standpipe system design]*;

(iv) Article 3.2.5.10. *[hose connections]*;

(v) Article 3.2.5.11. *[hose stations]*;

(vi) Article 3.2.5.12. *[automatic sprinkler systems]*;

(vii) Article 3.2.5.13. *[combustible sprinkler piping]*;

(viii) Article 3.2.5.14. *[sprinklered service space]*;

(ix) Article 3.2.5.15. *[fire department connections]*;

(x) Article 3.2.5.17. *[protection from freezing]*;

(xi) Article 3.2.5.18. *[fire pumps]*;

(xii) Article 9.10.21.9. *[hose stations]*.

[en. B.C. Reg. 52/2017, App. 1, s. 4.]

Division 2 — Qualification as Building Official

Mandatory membership

10 For the purposes of section 11 (1) (a) (iii) *[prescribed professional association]* of the Act, the Building Officials' Association of British Columbia is prescribed.

[en. B.C. Reg. 52/2017, App. 1, s. 4.]

Classes of building officials

11 For the purposes of section 11 (2) (a) of the Act, the classes of building officials set out in Column 1 of a table in the Schedule are established with the scope of practice set out opposite in Column 2.

[en. B.C. Reg. 52/2017, App. 1, s. 4.]

Recognition of extraprovincial building credentials

12 For the purposes of section 11 (2) (b) of the Act, the registrar may recognize an extraprovincial building credential and classify the holder of the extraprovincial building credential into a class of building officials if satisfied that the credential

- (a) is valid in the extraprovincial jurisdiction,
- (b) is held by a person who is not subject to any sanctions in the extraprovincial jurisdiction in relation to the credential, and
- (c) evidences that the holder is qualified to perform the work of a building official in that class.

[en. B.C. Reg. 52/2017, App. 1, s. 4.]

Division 3 — Register of Qualified Building Officials**Retention of records**

13 For the purposes of section 12 (8) [*register of qualified building officials*] of the Act, the prescribed number of years is 15.

[en. B.C. Reg. 52/2017, App. 1, s. 4.]

Division 4 — Annual Report and Fees**Annual report**

14 (1) For the purposes of section 13 (a) of the Act, a person making an annual report must include the following information in the report:

- (a) the name of the person;
- (b) the class of building officials to which the person belongs;
- (c) a declaration that the person has satisfied the continuing professional development requirements specified by the minister under section 11 (1) (a) (ii) of the Act for the calendar year;
- (d) the following information respecting continuing professional development for the calendar year:
 - (i) the title and description of every continuing professional development activity completed by the person;
 - (ii) the date of the continuing professional development activity;

- (iii) the name of the provider of the continuing professional development activity, if applicable;
- (iv) evidence of successful completion of, or evidence of attendance at, the continuing professional development activity.

(2) An annual report must be submitted, on or before December 31 of each year, on a website maintained by, or on behalf of, the Building Officials' Association of British Columbia.

[en. B.C. Reg. 52/2017, App. 1, s. 4.]

Annual fees

- 15** The annual fees required under section 13 (b) of the Act must be paid on or before December 31 of each year.

[en. B.C. Reg. 52/2017, App. 1, s. 4.]

Division 5 — Fee-Setting Criteria

Definition for Division

- 15.1** In this Division, "**stakeholders**" means

- (a) qualified building officials,
- (b) local authorities, and
- (c) persons who employ qualified building officials.

[en. B.C. Reg. 52/2017, App. 2, s. 1, as en. by B.C. Reg. 116/2017, s. 1.]

Criteria for fee-setting process

- 16** The fee-setting process established by the administrative authority under section 17 (1) of the Act must be in accordance with the following:

- (a) before setting a new fee or changing a fee, the administrative authority must consult with the following respecting the proposed fee:
 - (i) representatives of stakeholders;
 - (ii) representatives of the Union of British Columbia Municipalities;
- (b) the administrative authority must notify stakeholders and the Union of British Columbia Municipalities of any new fee or change in a fee at least 90 days before the date on which the fee or change is to take effect;

(c) the administrative authority must post the notification under paragraph (b) on a publicly accessible website maintained by, or on behalf of, the administrative authority.

[en. B.C. Reg. 52/2017, App. 2, s. 2, as en. by B.C. Reg. 116/2017, s. 2.]

Schedule

[en. B.C. Reg. 52/2017, App. 1, s. 5; am. B.C. Reg. 139/2017, s. 2.]

Interpretation

1 (1) In this Schedule:

"advanced plumbing system" means a plumbing system that

- (a) is used to drain or vent acid or corrosive wastes, or
- (b) contains a bedpan washer, trade waste system, vent stack or yoke vent;

"Part 3 building" means a building other than a Part 9 building;

"Part 9 building" means a building, described in Article 1.3.3.3. of Division A of the building code, to which Part 9 of Division B of the building code applies;

"separate basement" means a basement that is a separate building from the building above it.

(2) In the tables, the terms in *italics* have the same meaning as in the building code.

Table 1 — Building

Column 1 Class of Building Official	Column 2 Scope of Practice
Building Level 1	<p>Conformance with the building regulations, other than the plumbing code, of the following <i>buildings</i>:</p> <ul style="list-style-type: none"> (a) a Part 9 <i>building</i> classified as a Group C <i>major occupancy</i> that does not contain <ul style="list-style-type: none"> (i) more than 2 <i>dwelling units</i>, or (ii) a separate <i>basement</i>; (b) a Part 9 <i>building</i> classified as a Group C <i>major occupancy</i> that does not contain <ul style="list-style-type: none"> (i) a <i>dwelling unit</i> above another <i>dwelling unit</i>, (ii) a <i>firewall</i>, or (iii) a separate <i>basement</i>; (c) a Part 9 <i>building</i>, other than a <i>farm building</i>, that

	<p>(i) is a detached garage, or accessory <i>building</i>, that serves a <i>dwelling unit</i> in a <i>building</i> described in paragraph (a) or (b),</p> <p>(ii) is located on the same property as that <i>building</i>, and</p> <p>(iii) does not contain a separate <i>basement</i>;</p> <p>(d) a Part 9 <i>building</i> classified as a Group F, Division 2 or 3 <i>major occupancy</i>, other than a <i>farm building</i>, that</p> <p>(i) is one <i>storey</i> in <i>building height</i>, and</p> <p>(ii) does not contain</p> <p>(A) more than one <i>suite</i>, or</p> <p>(B) a separate <i>basement</i>.</p>
Building Level 2	Conformance with the building regulations, other than the plumbing code, of a Part 9 <i>building</i> .
Building Level 3	Conformance with the building regulations, other than the plumbing code, of a <i>building</i> .

Table 2 — Plumbing

Column 1 Class of Building Official	Column 2 Scope of Practice
Plumbing Level 1	<p>Conformance with the building regulations, as they relate to one or more of the following:</p> <p>(a) <i>plumbing systems</i>;</p> <p>(b) <i>foundation</i> drainage;</p> <p>(c) hydronic heating systems;</p> <p>of the following <i>buildings</i>:</p> <p>(d) a Part 9 <i>building</i>;</p> <p>(e) a new Part 3 <i>building</i>, other than a <i>building</i> classified as a Group B, Division 2 <i>major occupancy</i>, that</p> <p>(i) is no more than 4 <i>storeys</i> in <i>building height</i>, and</p> <p>(ii) does not contain an advanced <i>plumbing system</i>;</p> <p>(f) an existing Part 3 <i>building</i>, if the work does not involve</p> <p>(i) a change in occupancy to a Group B, Division 2 <i>major occupancy</i>, or</p> <p>(ii) the installation of a new advanced <i>plumbing system</i>.</p>
Plumbing Level 2	<p>Conformance with the building regulations, as they relate to one or more of the following:</p> <p>(a) <i>plumbing systems</i>;</p> <p>(b) <i>foundation</i> drainage;</p> <p>(c) hydronic heating systems</p> <p>of a <i>building</i>.</p>

[Provisions relevant to the enactment of this regulation: [Building Act](#), S.B.C. 2015, c. 2, section 41]

PROVINCE OF BRITISH COLUMBIA

**REGULATION OF THE MINISTER OF NATURAL GAS DEVELOPMENT AND
MINISTER RESPONSIBLE FOR HOUSING AND DEPUTY PREMIER**

Building Act

Ministerial Order No. M 158

I, Rich Coleman, Minister of Natural Gas Development and Minister Responsible for Housing and Deputy Premier, order that the British Columbia Building Code Regulation, B.C. Reg. 264/2012, is amended as set out in the attached Schedule.

APR 06 2017

Date



Minister of Natural Gas Development and
Minister Responsible for Housing and
Deputy Premier

(This part is for administrative purposes only and is not part of the Order.)

Authority under which Order is made:

Act and section: Building Act, S.B.C. 2015, c. 2, s. 3

Other: M188/2012

March 24, 2017

R/123/2017/3

SCHEDULE

- 1** *Book I (General) of the British Columbia Building Code established by the British Columbia Building Code Regulation, B.C. Reg. 264/2012, is amended as set out in this Schedule.*

Division 1 – Changes to Division A

- 2** *Sentence 1.4.2.1.(1) of Division A is amended by adding the following abbreviation:*

kWh kilowatt hour(s) .

Division 2 – Changes to Division B

- 3** *Table 1.3.1.2. of Division B is amended*

(a) by adding the following item:

ASTM	E 779-10	Standard Test Method for Determining Air Leakage Rate by Fan Pressurization	9.36.6.5.(1) 10.2.3.5.(1)
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,

(b) by repealing the following item:

CCBFC	NRCC 54435-2011	National Energy Code of Canada for Buildings	10.2.1.1.(1) 9.36.1.3.(1) 9.36.1.3.(4) 9.36.3.1.(2) 9.36.4.1.(2)
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and substituting the following:

CCBFC	NRCC 54435-2011	National Energy Code of Canada for Buildings	9.36.1.3.(1) 9.36.1.3.(4) 9.36.3.1.(2) 9.36.4.1.(2) 10.2.2.1.(1) 10.2.3.4.(1)
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,

(c) by repealing the following item:

CGSB	CAN/CGSB 149.10-M86	Determination of the Airtightness of Building Envelopes by the Fan Depressurization Method	9.36.5.10.(11)
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and substituting the following:

CAN/CGSB	CAN/CGSB 149.10-M86	Determination of the Airtightness of Building Envelopes by the Fan Depressurization Method	9.36.5.10.(11) 9.36.6.5.(1)
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, and

(d) by adding the following items:

CoV	2017	City of Vancouver Energy Modelling Guidelines	10.2.3.4.(1)
USACE	Version 3-2012	Air Leakage Test Protocol for Building Envelopes	9.36.6.5.(1) 10.2.3.5.(1)

4 Sentence 1.3.2.1.(1) is amended by adding the following abbreviations:

CoV..... City of Vancouver (453 West 12th Ave., Vancouver, BC V5Y 1V4, www.vancouver.ca)

USACE..... United States Army Corps of Engineers (U.S. Army Engineer Research and Development Center, 2902 Newmark Drive, Champaign, IL 61826-9005, USA, www.erd.usace.army.mil/Locations/CERL).

5 Article 6.2.2.1. is amended by adding the following Sentence:

4) For suites in buildings conforming to Subsection 9.36.6. or 10.2.3., the outdoor air required by Sentence (2) shall be supplied directly to each suite by mechanical ventilation through ducting.

(See Appendix A.)

6 Sentence 6.2.2.2.(1) is amended by adding “and except as required by Sentence 6.2.2.1.(4)” after “Except as permitted by Sentence (2)”.

7 Clause 9.32.3.4.(6)(a) is amended by striking out “and” at the end of Subclause (ii) and by adding the following Subclause:

iv) is not located in a building conforming to Subsection 9.36.6. or 10.2.3., and .

8 Article 9.36.1.3. is amended

(a) in Sentence (1) by striking out “or” at the end of Clause (b), by adding “or” at the end of Clause (c) and by adding the following Clause:

d) Subsection 9.36.6., and

(b) in Sentence (3) by striking out “Subsection 9.36.5. applies” and substituting “Subsections 9.36.5. and 9.36.6. apply”.

9 Sentence 9.36.5.4.(10) is amended by striking out “Sentence 9.36.5.10.(10) or (11), as applicable.” and substituting “Article 9.36.5.10.”.

10 Article 9.36.5.10. is amended

(a) in Clause (9)(a) by striking out “3.2 air changes” and substituting “4.5 air changes”,

(b) in Clause (9)(b) by striking out “2.5 air changes” and substituting “3.5 air changes”,

(c) in Clause (9)(c) by striking out “where airtightness is tested in accordance with Sentence (11),” and substituting “tested in accordance with Sentence (11), and shall be”,

(d) *in Sentence (10) by striking out “A design airtightness shall be” and substituting “Where airtightness is measured in accordance with Clause 9.36.5.10.(9) (c), the applicable airtightness value in Clause 9.36.5.10.(9)(a) or (b) shall be”, and*

(e) *by repealing Sentence (12).*

11 The following Subsection is added:

9.36.6. ENERGY STEP CODE

9.36.6.1. Application

1) Where a *building* contains more than one *dwelling unit*, the requirements of this Subsection shall apply to the energy performance of the *building* and not to individual *dwelling units*.

9.36.6.2. Definitions

1) For the purpose of this Subsection, the term “mechanical energy use intensity” shall mean a metric of the energy used over a year, estimated by using an energy model in accordance with Article 9.36.6.4., normalized per square metre of area of *conditioned space* and expressed in kWh/(m²·year), for all of the following combined:

- a) space-heating equipment,
- b) space-cooling equipment,
- c) fans,
- d) service water heating equipment,
- e) pumps, and
- f) auxiliary HVAC equipment (see Appendix A).

2) For the purpose of this Subsection, the term “EnerGuide Rating % lower than EnerGuide Reference House” shall mean the metric that results when, using HOT2000 software, version 11 or newer and Natural Resources Canada’s EnerGuide Rating System, version 15 or newer, the energy consumption of the following are compared:

- a) the proposed *building*, not including the EnerGuide assumed electric base loads, and
- b) the corresponding automatically-generated reference house, not including the EnerGuide assumed electric base loads.

3) For the purpose of this Subsection, the term “thermal energy demand intensity” shall mean a metric of the annual heating required by the *building* for space conditioning and for conditioning of ventilation air, estimated by using an energy model in accordance with Article 9.36.6.4., normalized per square metre of area of *conditioned space* and expressed in kWh/(m²·year), taking into account all of the following:

- a) thermal transmittance of above-ground walls and roof-ceiling assemblies,

- b) thermal transmittance of floors and walls in contact with the ground, or with space that is not *conditioned space*,
- c) thermal transmittance and solar heat gain of windows, doors and skylights,
- d) air leakage through the air barrier system,
- e) internal heat gains from occupants and equipment, and
- f) heat recovery from exhaust ventilation.

4) For the purpose of this Subsection, the term “peak thermal load” shall mean a metric of the maximum heating energy required by the *building* for space conditioning and for conditioning of ventilation air, estimated by using an energy model in accordance with Article 9.36.6.4., at a 2.5% January design temperature and expressed in watts per square metre of area (W/m^2) of *conditioned space*, taking into account all of the items referred to in Clauses (3)(a) through (f).

5) For the purpose of this Subsection, the term “Step” shall mean a Step referred to in Tables 9.36.6.3.A. to C.

9.36.6.3. Compliance Requirements

1) *Buildings* conforming to the requirements of any of Steps 1 to 5 shall be designed and constructed to conform to the applicable energy performance requirements in Tables 9.36.6.3.A. to C.

Table 9.36.6.3.A.

Requirements for Buildings Located Where the Degree-Days Below 18°C Value is less than 3000⁽¹⁾
Forming Part of Sentence 9.36.6.3.(1)

Step	Airtightness (Air Changes per Hour at 50 Pa Pressure Differential)	Performance Requirement of <i>Building</i> Equipment and Systems	Performance Requirement of <i>Building</i> Envelope
1	N/A	EnerGuide Rating % lower than EnerGuide Reference House: not less than 0% lower energy consumption or conform to Subsection 9.36.5.	
2	≤ 3.0	EnerGuide Rating % lower than EnerGuide Reference House: not less than 10% lower energy consumption or mechanical energy use intensity $\leq 60 \text{ kWh}/\text{m}^2\cdot\text{year}$	thermal energy demand intensity $\leq 45 \text{ kWh}/(\text{m}^2\cdot\text{year})$ or peak thermal load $\leq 35 \text{ W}/\text{m}^2$
3	≤ 2.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 20% lower energy consumption or mechanical energy use intensity $\leq 45 \text{ kWh}/\text{m}^2\cdot\text{year}$	thermal energy demand intensity $\leq 40 \text{ kWh}/(\text{m}^2\cdot\text{year})$ or peak thermal load $\leq 30 \text{ W}/\text{m}^2$
4	≤ 1.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 40% lower energy consumption	thermal energy demand intensity $\leq 25 \text{ kWh}/(\text{m}^2\cdot\text{year})$ or peak thermal load

		or mechanical energy use intensity $\leq 35 \text{ kWh/m}^2\text{-year}$	$\leq 25 \text{ W/m}^2$
5	≤ 1.0	mechanical energy use intensity $\leq 25 \text{ kWh/m}^2\text{-year}$	thermal energy demand intensity $\leq 15 \text{ kWh/(m}^2\text{-year)}$ or peak thermal load $\leq 10 \text{ W/m}^2$

Notes to Table 9.36.6.3.A.:

⁽¹⁾ See Sentence 1.1.3.1.(1) of this Division and Table C-2 in Appendix C.

Table 9.36.6.3.B.

Requirements for Buildings Located Where the Degree-Days Below 18°C Value is 3000 to 3999⁽¹⁾
Forming Part of Sentence 9.36.6.3.(1)

Step	Airtightness (Air Changes per Hour at 50 Pa Pressure Differential)	Performance Requirement of <i>Building</i> Equipment and Systems	Performance Requirement of <i>Building</i> Envelope
1	N/A	EnerGuide Rating % lower than EnerGuide Reference House: not less than 0% lower energy consumption or conform to Subsection 9.36.5.	
2	≤ 3.0	EnerGuide Rating % lower than EnerGuide Reference House: not less than 10% lower energy consumption or mechanical energy use intensity $\leq 90 \text{ kWh/(m}^2\text{-year)}$	thermal energy demand intensity $\leq 60 \text{ kWh/(m}^2\text{-year)}$ or peak thermal load $\leq 55 \text{ W/m}^2$
3	≤ 2.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 20% lower energy consumption or mechanical energy use intensity $\leq 75 \text{ kWh/(m}^2\text{-year)}$	thermal energy demand intensity $\leq 50 \text{ kWh/(m}^2\text{-year)}$ or peak thermal load $\leq 45 \text{ W/m}^2$
4	≤ 1.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 40% lower energy consumption or mechanical energy use intensity $\leq 45 \text{ kWh/(m}^2\text{-year)}$	thermal energy demand intensity $\leq 40 \text{ kWh/(m}^2\text{-year)}$ or peak thermal load $\leq 40 \text{ W/m}^2$
5	≤ 1.0	mechanical energy use intensity $\leq 25 \text{ kWh/(m}^2\text{-year)}$	thermal energy demand intensity $\leq 15 \text{ kWh/(m}^2\text{-year)}$ or peak thermal load $\leq 10 \text{ W/m}^2$

Notes to Table 9.36.6.3.B.:

⁽¹⁾ See Sentence 1.1.3.1.(1) of this Division and Table C-2 in Appendix C.

Table 9.36.6.3.C.
Requirements for Buildings Located Where the Degree-Days Below 18°C Value is greater than 3999⁽¹⁾
Forming Part of Sentence 9.36.6.3.(1)

Step	Airtightness (Air Changes per Hour at 50 Pa Pressure Differential)	Performance Requirement of <i>Building</i> Equipment and Systems	Performance Requirement of <i>Building</i> Envelope
1	N/A	EnerGuide Rating % lower than EnerGuide Reference House: not less than 0% lower energy consumption or conform to Subsection 9.36.5.	
2	≤ 3.0	EnerGuide Rating % lower than EnerGuide Reference House: not less than 10% lower energy consumption or mechanical energy use intensity ≤ 100 kWh/(m ² ·year)	thermal energy demand intensity ≤ 70 kWh/(m ² ·year) or peak thermal load ≤ 55 W/m ²
3	≤ 2.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 20% lower energy consumption or mechanical energy use intensity ≤ 85 kWh/(m ² ·year)	thermal energy demand intensity ≤ 60 kWh/(m ² ·year) or peak thermal load ≤ 50 W/m ²
4	≤ 1.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 40% lower energy consumption or mechanical energy use intensity ≤ 55 kWh/(m ² ·year)	thermal energy demand intensity ≤ 50 kWh/(m ² ·year) or peak thermal load ≤ 45 W/m ²
5	≤ 1.0	mechanical energy use intensity ≤ 25 kWh/(m ² ·year)	thermal energy demand intensity ≤ 15 kWh/(m ² ·year) or peak thermal load ≤ 10 W/m ²

Notes to Table 9.36.6.3.C.:

⁽¹⁾ See Sentence 1.1.3.1.(1) of this Division and Table C-2 in Appendix C.

- 2) Except as permitted by Sentence (3),
 - a) energy performance shall be calculated in conformance with Article 9.36.6.4., and
 - b) airtightness shall be tested in accordance with Article 9.36.6.5.
- (See Appendix A.)
- 3) *Buildings* designed and constructed to conform to Step 5 of any of Tables 9.36.6.3.A. to C. and to the Passive House Planning Package, version 9 or newer, are deemed to comply with this Subsection if the energy model according to which the *building* is designed and constructed is prepared by a Certified Passive House Designer, or Certified Passive House Consultant, who is approved by the Passive House Institute.

9.36.6.4. Energy Modelling

1) Energy modelling shall be performed using a computer program that employs calculation methods that have been tested in accordance with ANSI/ASHRAE 140, "Evaluation of Building Energy Analysis Computer Programs" with variations in the computer program from the range recommended therein reported in accordance with Division C.

2) Energy modelling shall conform to

- a) Subsection 9.36.5.,
- b) the EnerGuide Rating System, version 15 or newer, or (See Appendix A.)
- c) Clauses 10.2.3.4.(1)(a) and (b).

3) The Performance Requirement of Building Equipment and Systems and the Performance Requirement of Building Envelope required under Sentence 9.36.6.3.(1) shall both be modelled using the same

- a) energy modelling methods, and
- b) climatic data, *soil* conditions, operating schedules and temperature set-points.

4) For *buildings* conforming to the requirements of any of Steps 2 to 5, energy modelling shall account for the air leakage rate derived in accordance with Article 9.36.6.5.

(See Appendix A.)

9.36.6.5. Building Envelope Airtightness Testing

1) *Buildings* shall be tested for airtightness in accordance with

- a) CAN/CGSB 149.10, "Determination of the Airtightness of Building Envelopes by the Fan Depressurization Method",
- b) ASTM E 779, "Standard Test Method for Determining Air Leakage Rate by Fan Pressurization", or
- c) USACE Version 3, "Air Leakage Test Protocol for Building Envelopes".

2) Where airtightness is determined in accordance with Sentence (1) with intentional openings for mechanical equipment left unsealed, the airtightness rate shall be adjusted in the energy model calculations to account for air leakage through mechanical equipment.

3) *Buildings* shall be tested for airtightness to an induced test pressure of not less than 50 Pa.

12 Section 10.2. is repealed and the following substituted:

Section 10.2. Energy Efficiency

10.2.1. GENERAL

10.2.1.1. Application

- 1) This Section does not apply to *buildings* described in Sentence 1.3.3.3.(1) of Division A.

10.2.2. DESIGN AND INSTALLATION

10.2.2.1. Design and Installation

- 1) *Buildings* shall be designed and constructed to conform to
 - a) ANSI/ASHRAE/IESNA 90.1, "Energy Standard for Buildings Except Low-Rise Residential Buildings",
 - b) the NECB, or
 - c) Subsection 10.2.3.
- 2) Where a *building* contains one or more *major occupancies* that conform to Subsection 10.2.3., the remaining *major occupancies* shall comply with Clause (1)(a) or (b).

10.2.3. ENERGY STEP CODE

10.2.3.1. Application

- 1) This Subsection applies to *buildings*
 - a) containing any of the following *major occupancies*:
 - i) *residential*,
 - ii) *business and personal services*, or
 - iii) *mercantile*, and
 - b) located where the degree-days below 18°C value is less than 3000.
- (See Sentence 1.1.3.1.(1) of Division B and Table C-2 in Appendix C.)

10.2.3.2. Definitions

- 1) For the purpose of this Subsection, the term "total energy use intensity" shall mean a metric of the energy, estimated by using an energy model in accordance with Article 10.2.3.4., used over a year, normalized per square metre of floor area of *conditioned space* and expressed in kWh/(m²·year), from all of the following combined:
 - a) space-heating equipment,
 - b) space-cooling equipment,
 - c) fans,
 - d) interior and exterior lighting devices,

- e) service water heating equipment,
- f) pumps,
- g) auxiliary HVAC equipment (see A-9.36.6.2.(1)(f) in Appendix A),
- h) receptacle loads and miscellaneous equipment,
- i) appliances, and
- j) elevators and escalators.

2) For the purpose of this Subsection, the term “thermal energy demand intensity” shall mean a metric of the annual heating required by the *building* for space conditioning and for conditioning of ventilation air, estimated by using an energy model in accordance with Article 10.2.3.4., normalized per square metre of area of *conditioned space* and expressed in kWh/(m²·year), taking into account all of the following:

- a) thermal transmittance of above-ground walls and roof-ceiling assemblies,
- b) thermal transmittance of floors and walls in contact with the ground, or space that is not *conditioned space*,
- c) thermal transmittance and solar heat gain of windows, doors and skylights,
- d) air leakage through the air barrier system,
- e) internal heat gains from occupants and equipment, and
- f) heat recovery from exhaust ventilation.

(See Appendix A.)

3) For the purpose of this Subsection, the term “Step” shall mean a Step referred to in Tables 10.2.3.3.A. and B.

10.2.3.3. Compliance Requirements

1) Except as permitted by Sentence (3), *buildings* and *major occupancies* conforming to the requirements of any of Steps 1 to 4 shall be designated and constructed to conform to the applicable energy performance requirements in Tables 10.2.3.3.A. and B.

Table 10.2.3.3.A.
Energy Performance Requirements for Residential Occupancies
Forming Part of Sentences 10.2.3.3.(1) and (2)

Step	Equipment and Systems – Maximum Total Energy Use Intensity (kWh/m ² ·year)	Building Envelope – Maximum Thermal Energy Demand Intensity (kWh/m ² ·year)
1	Conform to Part 8 of the NECB	
2	130	45
3	120	30
4	100	15

Table 10.2.3.3.B.
Energy Performance Requirements for Business and Personal Services or Mercantile Occupancies
 Forming Part of Sentences 10.2.3.3.(1) and (2)

Step	Equipment and Systems – Maximum Total Energy Use Intensity (kWh/m ² ·year)	Building Envelope – Maximum Thermal Energy Demand Intensity (kWh/m ² ·year)
1	Conform to Part 8 of the NECB	
2	170	30
3	120	20

- 2) Except as permitted by Sentence (3),
 - a) energy performance shall be calculated in conformance with Article 10.2.3.4., and
 - b) airtightness shall be tested in accordance with Article 10.2.3.5.

(See Appendix A.)

3) *Buildings* and *major occupancies* designed and constructed to conform to Step 4 of Table 10.2.3.3.A or to Step 3 in Table 10.2.3.3.B, and to the Passive House Planning Package, version 9 or newer, are deemed to comply with this Subsection provided the energy model according to which the *building* or the *major occupancy* of the *building* is designed and constructed is prepared by a Certified Passive House Designer, or Certified Passive House Consultant, who is approved by the Passive House Institute.

(See also Sentence 10.2.2.1.(2).)

10.2.3.4. Energy Modelling

- 1) Except as required by Sentence (2), for *buildings* and *major occupancies* conforming to the requirements of any of Steps 1 to 4, energy modelling shall conform to
 - a) the applicable requirements of Part 8 of the NECB, and (See Appendix A.)
 - b) the City of Vancouver Energy Modelling Guidelines.
- 2) Except as permitted by Sentence (3), energy modelling for *buildings* and *major occupancies* conforming to the requirements of any of Steps 2 to 4 shall account for the air leakage rate derived in accordance with Article 10.2.3.5.

(See Appendix A.)

3) Energy modelling is permitted to account for an air leakage rate of 0.25 L/(s·m²) until the air leakage rate determined by Sentence (2) is available.

(See Appendix A.)

10.2.3.5. Building Envelope Airtightness Testing

- 1) Except as required by Sentence (2), *buildings* and *major occupancies* shall be tested for airtightness in accordance with

- a) ASTM E 779, "Standard Test Method for Determining Air Leakage Rate by Fan Pressurization", or
- b) USACE Version 3, "Air Leakage Test Protocol for Building Envelopes".

(See Appendix A.)

2) Where airtightness is determined in accordance with Sentence (1) with intentional openings for mechanical equipment left unsealed, the airtightness rate shall be adjusted in the energy model calculations to account for air leakage through mechanical equipment.

3) *Buildings and major occupancies* shall be tested for airtightness to an induced test pressure of not less than 75 Pa.

Division 3 – Changes to Appendix A of Division B

13 The following Appendix Notes are added to Appendix A of Division B:

A-6.2.2.1.(4) Ventilation Air Supplied to Suites

The indirect supply of required outdoor ventilation air to normally occupied spaces through corridor pressurization or other indirect systems is not permitted.

A-9.36.6.2.(1)(f) Auxiliary HVAC Equipment

This category of equipment generally includes cooling tower fans, humidifiers and other devices that do not directly fall under one of the other categories listed in Sentence 8.4.2.2.(1) of the NECB.

A-9.36.6.3.(2) Airtightness Testing for Step 1

Although there is no airtightness requirement for buildings conforming to the requirements of Step 1, these buildings must still be tested in accordance with Article 9.36.6.5. and their air barriers must meet the requirements of Subsection 9.25.3.

Buildings conforming to the requirements of Step 1 must also conform to Subsection 9.36.5. Although Sentence 9.36.5.10.(9) provides the option of using the airtightness as tested in the energy modelling, using the result in the energy model is not required.

A-9.36.6.4.(2)(b) EnerGuide Rating System

Although not a requirement of the British Columbia Building Code, users of the EnerGuide Rating System (ERS) must be energy advisors registered and in good standing with Natural Resources Canada in accordance with the EnerGuide Rating System Administrative Procedures and must adhere to the technical standards and procedures of the ERS. These standards and procedures are available through Natural Resources Canada and include program requirements for energy modelling using the ERS.

A-9.36.6.4.(2)(c) NECB

Although the energy model calculation methods of the NECB are permitted to be used, the results of those calculations must reflect the definitions and the requirements related to mechanical energy use intensity, thermal energy demand intensity, and peak thermal load as set out in Articles 9.36.6.2. and 9.36.6.3., and not the Annual Energy Consumption as required by Part 8 of the NECB.

A-9.36.6.4.(4) Air Leakage Rate in Energy Model Calculations

For Step 1 buildings, airtightness testing must be performed as required by Sentence 9.36.6.3.(2) and reported as required by Division C, but there is no minimum level of airtightness required. See Sentence 9.36.5.10.(9) for

requirements for the airtightness value to be used in the energy model calculations for Step 1 buildings using Subsection 9.36.5.

For buildings that must conform to the requirements of any of Steps 2 to 5, higher than expected air leakage may require the building design to be altered and the energy model calculations to be repeated. Alternatively, the air leakage rate could be retested after making alterations to the air barrier system to attain the desired air leakage rate.

A-10.2.3.2.(2) Thermal Energy Demand Intensity (TEDI)

TEDI does not include receptacle loads and energy use from unusual uses such as spas and computer server rooms.

A-10.2.3.3.(2) Energy Model Calculations for Step 1

Although the total energy use intensity and thermal energy demand intensity are not required for NECB conformance, they must still be calculated in conformance with Article 10.3.1.4. and reported in accordance with Subsection 2.2.9. of Division C.

A-10.2.3.4.(1)(a) and (2) Energy Model Calculations for Steps 2 to 4

Notwithstanding the requirements of Part 8 of the NECB, a reference building and building energy target are not required for compliance with the requirements of Steps 2 to 4 in Article 10.2.3.3. The performance requirements of Table 10.2.3.3.A. and Table 10.2.3.3.B. are used to determine compliance.

A-10.2.3.4.(3) Air Leakage Rate in Energy Model Calculations

The requirement to account for the air leakage rate as tested in all energy model calculations, other than for Step 1 buildings, supersedes the NECB, which permits an assumed air leakage value of $0.25 \text{ L}/(\text{s}\cdot\text{m}^2)$ to be used for energy model calculations. For buildings that must conform to the requirements of any of Steps 2 to 4, higher than expected air leakage may require the building design to be altered and the energy model calculations to be repeated. Alternatively, the air leakage rate could be retested after making alterations to the air barrier system to attain the desired air leakage rate.

A-10.2.3.4.(3) Air Leakage Rate in Energy Model Calculations for Step 1

Although the air leakage rate as tested of the building need not be used for the purposes of conforming with Part 8 of the NECB and Sentence 10.2.3.4.(2), Article 2.2.9.1. of Division C requires that the air leakage rate as tested be used in the calculation of the total energy use intensity and thermal energy demand intensity for reporting purposes on the drawings and specifications. This will typically require Step 1 energy model calculations to be redone after the airtightness test. It is not intended that the results of the airtightness test for buildings that must conform to the requirements of Step 1 influence the compliance of the building with Article 10.2.3.3.

A-10.2.3.4.(3) Air Leakage Rate

The air leakage rate of $0.25 \text{ L}/(\text{s}\cdot\text{m}^2)$, which is a typical infiltration rate at 5 Pa, is for calculation purposes and may not reflect the real rate encountered under actual operating conditions; it is based on assumed typical operating pressure differentials.

A-10.2.3.5.(1) Building Airtightness Testing Requirements

The intent of this testing is to quantify the airtightness level of the air barrier system, not airtightness of the building at in-service operating conditions.

Division 4 – Changes to Attribution Tables of Division B

- 14 Table 6.4.1.1. in the Attribution Tables of Division B is amended by adding the following under the heading “6.2.2.1. Required Ventilation”:**

(4)	[F50-OH1.1]
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- 15 Table 9.38.1.1. is amended by adding the following items:**

9.36.6.3. Compliance Requirements	
(1)	[F85, F86, F90, F91, F92, F93, F95, F96, F98, F99-OE1.1]
9.36.6.5. Building Envelope Airtightness Testing	
(1)	[F90-OE1.1]

- 16 Table 10.4.1.1. is repealed and the following substituted:**

Table 10.4.1.1. Objectives and Functional Statements Attributed to the Acceptable Solutions in Part 10 Forming Part of Sentence 10.4.1.1.(1) of Division B	
Acceptable Solutions	Functional Statements and Objectives ⁽¹⁾
10.2.1.1. Design	
(1)	[F85-OE1.1] [F86-OE1.1]
(2)	[F85-OE1.1]
(3)	[F85-OE1.1]
(4)	[F85-OE1.1]
(5)	[F85-OE1.1]
10.2.3.3. Compliance Requirements	
(3)	[F85, F86, F90, F91, F92, F93, F95, F96, F98, F99, F100-OE1.1]
10.2.3.5. Building Envelope Airtightness Testing	
(1)	[F90-OE1.1]
10.3.1.1. Fixture Fitting Maximum Flow Rates	
(1)	[F84-OE2.1, OE2.2]
10.3.1.2. Fixture Efficiency	
(1)	[F83-OE2.1, OE2.2]
(2)	[F83-OE2.1, OE2.2]

Notes to Table 10.4.1.1.:

⁽¹⁾ See Parts 2 and 3 of Division A.

Division 5 – Changes to Division C

- 17 Sentence 2.2.8.1.(1) of Division C is amended by striking out “Subsection 9.36.5. of Division B” and substituting “Subsection 9.36.5. or 9.36.6. of Division B”.**

18 Article 2.2.8.3. is amended by adding the following Sentence:

- 3) Where a *building* complies with Subsection 9.36.6. of Division B, the energy performance data summary in Clause (2)(c) shall also contain
 - a) the mechanical energy use intensity,
 - b) the thermal energy demand intensity,
 - c) the peak thermal load,
 - d) where applicable, the EnerGuide Rating % lower than EnerGuide Reference House for the *building*,
 - e) for *buildings* conforming to Step 1, the airtightness of the *building* as tested, derived in accordance with Article 9.36.6.5. of Division B, and recorded in air changes per hour at 50 Pa, and
 - f) for *buildings* conforming to any of Steps 2 to 5, the airtightness of the *building* as tested that is accounted for in accordance with Sentence 9.36.6.4.(4) of Division B, and derived in accordance with Article 9.36.6.5., recorded in air changes per hour at 50 Pa.

19 The following Subsection is added:

2.2.9. Drawings, Specifications and Calculations for Subsection 10.2.3

2.2.9.1. Application

- 1) This Subsection applies to *buildings* and *major occupancies* in *buildings* to which Subsection 10.2.3. of Division B applies.

2.2.9.2. Information Required on Drawings and Specifications

- 1) For *buildings* and *major occupancies* that are designed and constructed in compliance with Subsection 10.2.3. of Division B, plans or specifications shall indicate
 - a) the total energy use intensity as defined by Sentence 10.2.3.2.(1) of Division B,
 - b) the energy use intensity of major energy services separately, including
 - i) space heating,
 - ii) space cooling,
 - iii) service water heating,
 - iv) lighting, and
 - v) other plug loads,
 - c) the thermal energy demand intensity as defined by Sentence 10.2.3.2.(2) of Division B,
 - d) for *buildings* conforming to Step 1, the air leakage rate as tested, derived in accordance with Article 10.2.3.5. of Division B, and recorded in L/(s·m²) at 75 Pa, and

- e) for *buildings* conforming to any of Steps 2 to 5, the air leakage rate as tested that is accounted for in accordance with Sentence 10.2.3.4.(2) and derived in accordance with Article 10.2.3.5. of Division B, recorded in in $L/(s \cdot m^2)$ at 75 Pa.
- 2) The total energy use intensity in Clause (1)(a) and the thermal energy demand intensity in Clause (1)(c) shall account for the airtightness referenced in Clause (1)(d).

20 Schedule B is repealed and the attached Schedule B is substituted.

SCHEDULE B		<small>Building Permit No. _____ The authority having jurisdiction is: _____</small>
<small>Forming Part of Subsection 2.27, Div. C of the British Columbia Building Code</small>		
ASSURANCE OF PROFESSIONAL DESIGN AND COMMITMENT FOR FIELD REVIEW		
<p>Notes: (i) This letter must be submitted prior to the commencement of construction activities of the components identified below. A separate letter must be submitted by each registered professional of record.</p> <p>(ii) This letter is endorsed by: Architectural Institute of B.C., Association of Professional Engineers and Geoscientists of B.C., Building Officials' Association of B.C., and Union of B.C. Municipalities.</p> <p>(iii) In this letter the words in <i>italics</i> have the same meaning as in the British Columbia Building Code.</p>		
To: The authority having jurisdiction		
<div style="border-bottom: 1px solid black; margin-bottom: 5px;">Name of Jurisdiction (Print)</div>		
<div style="border-bottom: 1px solid black; margin-bottom: 5px;">Re: Name of Project (Print)</div>		
<div style="border-bottom: 1px solid black; margin-bottom: 5px;">Address of Project (Print)</div>		
<p>The undersigned hereby gives assurance that the design of the (initial those of the items listed below that apply to this registered professional of record. All the disciplines will not necessarily be employed on every project.)</p>		
<div style="margin-bottom: 2px;"><input type="checkbox"/> ARCHITECTURAL</div> <div style="margin-bottom: 2px;"><input type="checkbox"/> STRUCTURAL</div> <div style="margin-bottom: 2px;"><input type="checkbox"/> MECHANICAL</div> <div style="margin-bottom: 2px;"><input type="checkbox"/> PLUMBING</div> <div style="margin-bottom: 2px;"><input type="checkbox"/> FIRE SUPPRESSION SYSTEMS</div> <div style="margin-bottom: 2px;"><input type="checkbox"/> ELECTRICAL</div> <div style="margin-bottom: 2px;"><input type="checkbox"/> GEOTECHNICAL — temporary</div> <div style="margin-bottom: 2px;"><input type="checkbox"/> GEOTECHNICAL — permanent</div>	<div style="border: 1px solid black; height: 100px; margin: 0 auto; width: 150px; position: relative;"><div style="position: absolute; top: 0; right: 0; font-size: 2em; opacity: 0.1; transform: rotate(-15deg); pointer-events: none;">BRITISH COLUMBIA BUILDING CODE</div><div style="position: absolute; bottom: 5px; left: 5px; font-size: x-small;">Professional Seal and Signature</div></div> <div style="border-bottom: 1px solid black; margin-top: 10px; width: 100%;"></div> <div style="text-align: right; font-size: x-small;">Date</div>	
<p>components of the plans and supporting documents prepared by this registered professional of record in support of the application for the building permit as outlined below substantially comply with the B.C. Building Code and other applicable enactments respecting safety except for construction safety aspects.</p> <p>The undersigned hereby undertakes to be responsible for field reviews of the above referenced components during construction, as indicated on the "SUMMARY OF DESIGN AND FIELD REVIEW REQUIREMENTS" below.</p>		
1 of 4		CRP's Initials: _____

Schedule B - Continued

Building Permit No. _____
(to authority having jurisdiction's use)

Project Address _____

Discipline _____

The undersigned also undertakes to notify the authority having jurisdiction in writing as soon as possible if the undersigned's contract for field review is terminated at any time during construction.

I certify that I am a registered professional as defined in the British Columbia Building Code.

Registered Professional of Record's Name (Print) _____

Address (Print) _____

Phone No. _____

Professional's Seal and Signature _____

Date _____

(If the Registered Professional of Record is a member of a firm, complete the following.)

I am a member of the firm _____
and I sign this letter on behalf of the firm. (Print name of firm)

Note: The above letter must be signed by a registered professional of record, who is a registered professional. The British Columbia Building Code defines a registered professional to mean:

- (a) a person who is registered or licensed to practise as an architect under the Architects Act, or
- (b) a person who is registered or licensed to practise as a professional engineer under the Engineers and Geoscientists Act.

CRP's Initials _____

Building Permit No.
(by authority having jurisdiction's use)

Project Address

Inspector

SUMMARY OF DESIGN AND FIELD REVIEW REQUIREMENTS

(Initial applicable discipline below and cross out and initial only those items not applicable to the project.)

ARCHITECTURAL

- 1.1 Fire resisting assemblies
- 1.2 Fire separations and their continuity
- 1.3 Closures, including tightness and operation
- 1.4 Egress systems, including access to exit within suites and floor areas
- 1.5 Performance and physical safety features (guardrails, handrails, etc.)
- 1.6 Structural capacity of architectural components, including anchorage and seismic restraint
- 1.7 Sound control
- 1.8 Landscaping, screening and site grading
- 1.9 Provisions for fire fighting access
- 1.10 Access requirements for persons with disabilities
- 1.11 Elevating devices
- 1.12 Functional testing of architecturally related fire emergency systems and devices
- 1.13 Development Permit and conditions therein
- 1.14 Interior signage, including acceptable materials, dimensions and locations
- 1.15 Review of all applicable shop drawings
- 1.16 Interior and exterior finishes
- 1.17 Dampproofing and/or waterproofing of walls and slabs below grade
- 1.18 Roofing and flashings
- 1.19 Wall cladding systems
- 1.20 Condensation control and cavity ventilation
- 1.21 Exterior glazing
- 1.22 Integration of building envelope components
- 1.23 Environmental separation requirements (Part 5)
- 1.24 Building envelope, Part 10, ASHRAE or NECB requirements
- 1.25 Building envelope, testing or confirmation of Part 10 requirements

STRUCTURAL

- 2.1 Structural capacity of structural components of the building, including anchorage and seismic restraint
- 2.2 Structural aspects of deep foundations
- 2.3 Review of all applicable shop drawings
- 2.4 Structural aspects of unbonded post-tensioned concrete design and construction

MECHANICAL

- 3.1 HVAC systems and devices, including high building requirements where applicable
- 3.2 Fire dampers at required fire separations
- 3.3 Continuity of fire separations at HVAC penetrations
- 3.4 Functional testing of mechanically related fire emergency systems and devices
- 3.5 Maintenance manuals for mechanical systems
- 3.6 Structural capacity of mechanical components, including anchorage and seismic restraint
- 3.7 Review of all applicable shop drawings
- 3.8 Mechanical systems, Part 10/ASHRAE requirements
- 3.9 Building envelope, testing/confirmation of Part 10 requirements

(Professional Seal and Signature)

Date

GRP's Initials

Schedule B - Continued

Building Permit No.

(For Authority Having Jurisdiction's Use)

Project Address

Discipline

PLUMBING

- 4.1 Roof drainage systems
- 4.2 Site and foundation drainage systems
- 4.3 Plumbing systems and devices
- 4.4 Continuity of fire separations at plumbing penetrations
- 4.5 Functional testing of plumbing related fire emergency systems and devices
- 4.6 Maintenance manuals for plumbing systems
- 4.7 Structural capacity of plumbing components, including anchorage and seismic restraint
- 4.8 Review of all applicable shop drawings
- 4.9 Plumbing systems, Part 10, ASHRAE or NECB requirements
- 4.10 Plumbing systems, testing/confirmation of Part 10 requirements

FIRE SUPPRESSION SYSTEMS

- 5.1 Suppression system classification for type of occupancy
- 5.2 Design coverage, including concealed or special areas
- 5.3 Compatibility and location of electrical supervision, auxiliary alarm and control devices
- 5.4 Evaluation of the capacity of city (municipal) water supply versus system demands and domestic demand, including pumping devices where necessary
- 5.5 Qualification of welder, quality of welds and material
- 5.6 Review of all applicable shop drawings
- 5.7 Acceptance testing for "Contractor's Material and Test Certificate" as per NFPA Standards
- 5.8 Maintenance program and manual for suppression systems
- 5.9 Structural capacity of sprinkler components, including anchorage and seismic restraint
- 5.10 For partial systems — confirm sprinklers are installed in all areas where required
- 5.11 Fire Department connections and hydrant locations
- 5.12 Fire hose standpipes
- 5.13 Freeze protection measures for fire suppression systems
- 5.14 Functional testing of fire suppression systems and devices

ELECTRICAL

- 6.1 Electrical systems and devices, including high building requirements where applicable
- 6.2 Continuity of fire separations at electrical penetrations
- 6.3 Functional testing of electrical related fire emergency systems and devices
- 6.4 Electrical systems and devices maintenance manuals
- 6.5 Structural capacity of electrical components, including anchorage and seismic restraint
- 6.6 Clearances from buildings of all electrical utility equipment
- 6.7 Fire protection of wiring for emergency systems
- 6.8 Review of all applicable shop drawings
- 6.9 Electrical systems, Part 10, ASHRAE or NECB requirements
- 6.10 Electrical systems, testing/confirmation of Part 10 requirements

GEOTECHNICAL — Temporary

- 7.1 Excavation
- 7.2 Shoring
- 7.3 Underpinning
- 7.4 Temporary construction dewatering

GEOTECHNICAL — Permanent

- 8.1 Bearing capacity of the soil
- 8.2 Geotechnical aspects of deep foundations
- 8.3 Compaction of engineered fill
- 8.4 Structural considerations of soil, including slope stability and seismic loading
- 8.5 Backfill
- 8.6 Permanent dewatering
- 8.7 Permanent underpinning

(Professional's Seal and Signature)

Date

CRP's Initials

21 Schedule C-A is repealed and the attached Schedule C-A is substituted.

BRITISH COLUMBIA BUILDING CODE 2017	
<p>SCHEDULE C-A <small>Forming Part of Subsection 2.2.7, Division C of the British Columbia Building Code</small></p> <p>ASSURANCE OF COORDINATION OF PROFESSIONAL FIELD REVIEW</p>	
<p>Notes:</p> <p>(i) This letter must be submitted after completion of the project but before the occupancy permit is issued, or a final inspection is made, by the authority having jurisdiction.</p> <p>(ii) This letter is endorsed by: Architectural Institute of BC, Association of Professional Engineers and Geoscientists of BC, Building Officials' Association of BC, and Union of BC Municipalities.</p> <p>(iii) In this letter the words in <i>italics</i> have the same meaning as in the British Columbia Building Code.</p> <p>To: The authority having jurisdiction</p> <p>Name of Jurisdiction (Print): _____</p> <p>Re: _____</p> <p>Name of Project (Print): _____</p> <p>Address of Project (Print): _____</p> <p>Legal Description of Project (Print): _____</p> <p>(The coordinating registered professional shall complete the following:)</p> <p>Name (Print): _____</p> <p>Address (Print): _____</p> <p>Phone No. _____</p> <p>I hereby give assurance that</p> <p>(a) I have fulfilled my obligations for coordination of field review of the registered professionals required for the project as outlined in Subsection 2.2.7, Division C of the British Columbia Building Code and in the previously submitted Schedule A, "CONFIRMATION OF COMMITMENT BY OWNER AND BY COORDINATING REGISTERED PROFESSIONAL."</p> <p>(b) I have coordinated the functional testing of the fire protection and life safety systems to ascertain that they substantially comply in all material respects with</p> <p>(i) the applicable requirements of the BC Building Code and other applicable enactments respecting safety, not including construction safety aspects, and</p> <p>(ii) the plans and supporting documents submitted in support of the application for the building permit.</p> <p>(c) I have coordinated the compliance of the building with Part 10 requirements,</p> <p>(d) I am a registered professional as defined in the British Columbia Building Code.</p> <p>(If the registered professional is a member of a firm, complete the following.)</p> <p>I am a member of the firm _____</p> <p>and I sign this letter on behalf of the firm. (Print name of firm)</p> <p>Note: The above letter must be signed by a coordinating registered professional, who is also a registered professional. The British Columbia Building Code defines a registered professional to mean</p> <p>(a) a person who is registered or licensed to practise as an architect under the Architects Act, or</p> <p>(b) a person who is registered or licensed to practise as a professional engineer under the Engineers and Geoscientists Act.</p>	<div style="border: 1px solid black; height: 150px; width: 100%; position: relative;"> <div style="position: absolute; top: 10px; right: 10px; font-size: small;"> Building Permit No. _____ <small>(for authority having jurisdiction's use)</small> </div> <div style="position: absolute; bottom: 10px; right: 10px;"> Date _____ Professional's Seal and Signature: _____ </div> </div>
<p>CRP's Initials _____</p>	

BC Energy Step Code

A Best Practices Guide for
Local Governments



BRITISH
COLUMBIA

Version: 1.2 September 15, 2017

A publication of the Energy Step Code Council and the Building and Safety Standards Branch.





Photo: Passive House, Surrey BC (Part 9, Step 5).

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- The BC Innovative Clean Energy (ICE) Fund
- Building and Safety Standards Branch
- BC Hydro Sustainable Communities
- Energy Step Code Communications and Training Subcommittee members (BC Ministry of Energy, Mines and Petroleum Resources, Building and Safety Standards Branch, BC Housing, BC Hydro, Community Energy Association, City of New Westminster, City of Richmond, City of Surrey, FortisBC, Natural Resources Canada)

Energy Step Code Council Members

This Guide was made possible through the generous input and contributions from numerous organizations:



Letter from the Executive Director of the Building and Safety Standards Branch

The British Columbia Energy Step Code and this local government best practices guide represent an important milestone for energy efficient buildings and climate leadership in British Columbia. They are excellent examples of collaboration between the Province, local governments, the construction industry, professional associations, energy utilities, and other stakeholders.

As the information in this guide demonstrates, improving energy efficiency requires careful consideration of long-term affordability, consumer acceptance, capacity in the industry, and other conditions that can be unique to each community.

The Building and Safety Standards Branch is committed to the **Building Act** objective of improving the consistency of technical building requirements in British Columbia, while supporting local governments in pursuing improved energy efficiency and reducing greenhouse gas emissions from buildings.

The **BC Energy Step Code** provides local governments with another tool to achieve their policy objectives, while also providing the construction industry with a single set of consistent standards for energy efficiency across British Columbia. This improved consistency ensures that as we innovate with energy efficient designs, we are also avoiding unnecessary costs associated with the current patchwork of unique standards to each community – enabling a balance of energy efficiency and housing affordability. Much effort has

been invested by the Energy Step Code Council to establish a consensus approach to responsible implementation of the **BC Energy Step Code**, reflected in this guide.

I would like to acknowledge the significant contributions of all those involved in the development of this guide, and I look forward to continuing in the spirit of open collaboration in the future.



Andrew Pape-Salmon, P.Eng., MRM, FCAE
Executive Director, Building and Safety Standards Branch
Office of Housing and Construction Standards
Ministry of Municipal Affairs and Housing



Executive Summary

In April 2017, the Province of British Columbia adopted the BC Energy Step Code as regulation. The new standard is a tool designed to help both government and industry chart a course to a future in which all new construction across the province is “net-zero energy ready” by 2032.

By gradually adopting one or more steps of the new standard, local governments can steadily increase building performance, helping the Province and communities meet their energy conservation and greenhouse gas reduction goals. Along the way, they will facilitate demand for energy-efficient buildings, help the market mature, and grow industry capacity for high-performance products and practices across British Columbia.

The Energy Step Code Council, a multi-stakeholder body tasked with facilitating the implementation of the *BC Energy Step Code*, believes the standard will enjoy a greater chance of success if local governments implement it thoughtfully and prudently, with attention to appropriate incentives and industry capacity.

For this reason, the Energy Step Code Council strongly encourages local governments to follow the practices and processes outlined in this Best Practices Guide (Guide) – for the benefit of all. The pages that follow outline a wealth of information on the *BC Energy Step Code*. The recommendations are not regulatory requirements and not intended as legal advice regarding the authorities of local governments and Authorities Having Jurisdiction under the *Local Government Act* or the *Community Charter*.

Here are some of the most important considerations:

- The *BC Energy Step Code* is a **performance-based standard**. It establishes measurable requirements for energy efficiency in new construction. To demonstrate compliance, a builder must prove to local building officials that the building meets or exceeds a set of defined metrics for building envelope, equipment and systems, and airtightness testing.
- British Columbia local governments may now reference the standard in their policies and bylaws, and may enforce requirements as of **December 15, 2017**. As of that date, bylaws that reference other technical building standards or green-building programs will be unenforceable, due to Section 5 of the *Building Act* coming into force. The Energy Step Code Council is encouraging those governments that have such programs in place to convert them to reference the *BC Energy Step Code*.
- The **Energy Step Code Council** exists to support local governments as they develop a *BC Energy Step Code* strategy. The Energy Step Code Council has no regulatory authority; rather, it serves as a “bridge” between local governments, the Province, and the design, building, development, and construction sectors, offering advice and providing support and resources, such as this Guide.
- Local governments who choose to pursue establishing the *BC Energy Step Code* in their communities may select from a **broad spectrum of policy tools** including tools that raise awareness, provide incentives, institute bylaw requirements, remove barriers to energy efficient building, and/or demonstrate leadership. Each jurisdiction will need to select the tools most suitable to its community.

- If your local government is considering referencing one or more steps, you will need to establish a **consultation process with appropriate stakeholders** to select a strategy that will be successful for your community, including obtaining input to define the: policy and/or incentive tool(s), building type(s), geographic scale, and step(s).
- When developing your strategy, it is vital to provide **your staff and industry sufficient time and notification** to prepare for change. In particular, industry should be notified of consideration of a new program implementing Lower Steps jurisdiction-wide at least six months prior to enforcement. Other timelines apply to other circumstances and instances of referencing the steps and are detailed within this Guide.
- Your government can demonstrate leadership in the transition to net-zero energy ready buildings by **constructing new civic buildings to the Upper Steps**, and by encouraging those who are overseeing the development of new provincial and federal buildings in your community to do the same.

The above points represent just a sample of the advice and explanation you will find within this Guide. We hope this document serves as a valuable resource as you work to access the co-benefits of high-performance buildings while ensuring industry in your community has a head start on the future direction of the *BC Building Code*.

To stay abreast of additional resources as they come available, be sure to visit energystepcode.ca.



Kwayatsut concrete high-rise apartment building at Broadway and Fraser, Vancouver BC (Part 3, Step 3).



Photo: North Park Passive House, Victoria BC, photo by Ryan Hamilton (Part 9, Step 5).

About This Document

This Guide is a resource for all local governments in British Columbia that are interested in referencing the *BC Energy Step Code* in policies, programs, or bylaws. For this Guide, the term **local governments** includes: municipalities, regional districts, and the University of British Columbia Board of Governors who administer the *BC Building Code*. The *BC Energy Step Code* applies to the same jurisdictions as the *BC Building Code* and does not apply to construction in the City of Vancouver, on First Nations land, or on Federal land.

The BC Energy Step Code is a new standard designed to help both government and industry chart a course to a future in which all new construction across the province is “net-zero energy ready” by 2032, as identified in the BC Climate Leadership Plan.¹

By gradually adopting one or more steps of the standard, local governments can increase building performance requirements in their communities. They can do so at an appropriate pace for their communities, enabling demand to grow, the market to mature, and industry capacity to increase as services and products for the design and construction of high-performance buildings become more widely available.

The BC Energy Step Code provides more consistency to industry, establishing a standard set of performance requirements, while offering local governments a simple and effective set of standards to support their energy conservation and greenhouse gas reduction goals.

This Guide is for local government staff members and elected officials who are starting out along that path. It delves into the nuts and bolts of the standard, and offers context and clear information on the characteristics of each step. It highlights anticipated costs and benefits and offers guidance on suggested timelines and effective engagement for developing a community-specific strategy for implementing the *BC Energy Step Code*.

The new standard will have a greater chance of success if local governments implement it thoughtfully, with due care to stakeholder engagement, appropriate incentives, and industry capacity. For this reason, local governments are strongly encouraged to follow the best practices outlined in this Guide. While local governments are strongly encouraged to adopt the best practices outlined here – for the benefit of all – local governments are autonomous in the exercise of their lawful authorities.

If you are a local government staff member or elected official and cannot find an answer to your concern or question in this Guide, please visit energystepcode.ca, where resources will continue to be shared as they become available. For policy and technical questions, please contact the Building and Safety Standards Branch at building.safety@gov.bc.ca.

Finally, a series of illustrated guides to support industry in meeting the *BC Energy Step Code* will also be available at energystepcode.ca to support your community's building, design, construction, and development sectors.

1. <https://climate.gov.bc.ca/>

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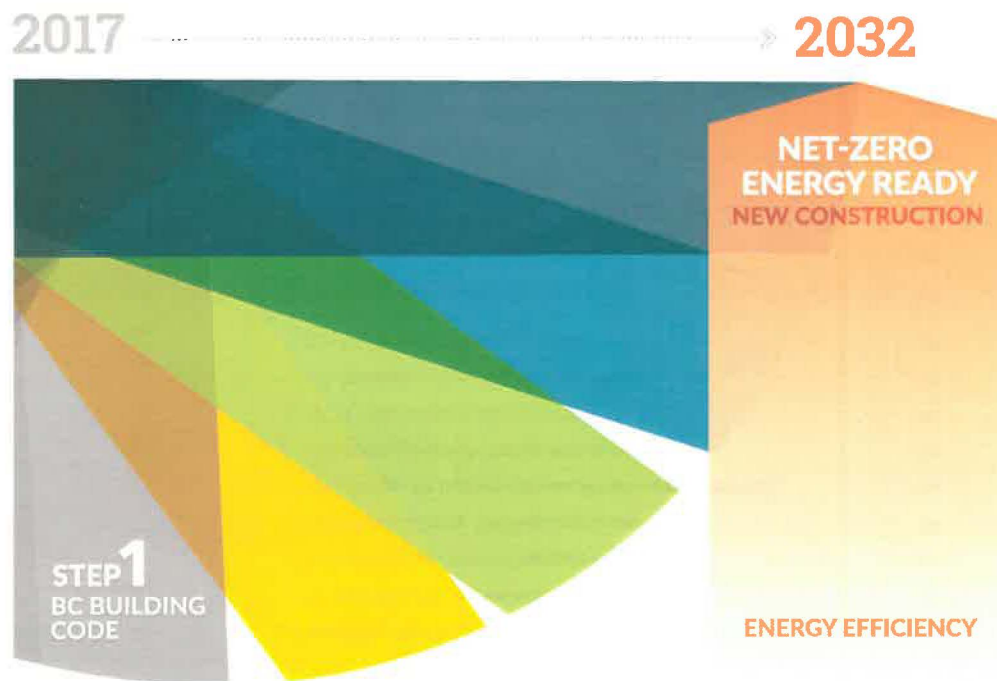
1 Introducing the BC Energy Step Code

1.1 What is the BC Energy Step Code?

The **BC Energy Step Code** is a provincial standard enacted in April 2017 that provides an incremental and consistent approach to achieving more energy-efficient buildings that go beyond the requirements of the base **BC Building Code**. This new standard is a vital measure to enable BC to meet the Provincial goal to construct net-zero energy ready buildings by 2032. It does so by establishing a series of measurable, performance-based energy-efficiency requirements for construction that communities may choose to adopt when ready.

The BC Energy Step Code groups these energy-efficiency requirements into a series of "steps."

Step 1 entails modelling energy performance and measuring airtightness to ensure that a building will meet or exceed the minimum energy-efficiency requirements in the base **BC Building Code**. Meanwhile, at the opposite end of the scale, the highest step represents a "net-zero energy ready" standard – a standard that is being met by the most energy-efficient projects being developed today.



The **BC Energy Step Code** also aligns with the Government of Canada's **Pan-Canadian Framework on Clean Growth and Climate Change**. That framework establishes a goal that provinces and territories adopt a net-zero energy ready model building code by 2030; the **BC Energy Step Code** provides a path to incrementally prepare British Columbia for this coming change.

The **BC Energy Step Code** provides more consistency to industry, establishing a standard set of performance requirements, while offering local governments a simple and effective set of standards to support their energy conservation and greenhouse gas reduction goals. It also supports co-benefits such as improved occupant comfort, lower utility bills, and reduced noise inside buildings.

Local governments in BC (except the City of Vancouver) may now reference the **BC Energy Step Code** in their policies and bylaws, and may begin enforcing requirements as of **December 15, 2017**.¹ This Guide provides notification timelines and guidance for completing appropriate consultation and preparation prior to beginning enforcement of the **BC Energy Step Code**.

The **BC Energy Step Code** is also available for industry to voluntarily adopt as a compliance path in the **BC Building Code** by meeting the minimum performance set out in Step 1 (or the Step set out in the applicable local bylaw).

1. The City of Vancouver sets its own building efficiency standards, within the Vancouver Building Bylaw, under the Vancouver Charter. The BC Energy Step Code uses an approach to measuring energy performance that is similar to that used by the City of Vancouver for many building types. This will help align energy standards across the province.

What is a Net-Zero Energy Ready Building?

Net-zero energy buildings produce as much clean energy as they consume. They are up to 80 percent more energy efficient than a typical new building, and use on-site (or near-site) renewable energy systems to produce the remaining energy they need. A net-zero energy ready building is one that has been designed and built to a level of performance such that it could, with the addition of solar panels or other renewable energy technologies, achieve net-zero energy performance.



Highly energy-efficient home currently under construction in Kelowna BC (Part 9, Step 5).



The Heights, a highly energy efficient wood-frame residential building under construction in Vancouver BC (Part 3, Step 4).



“We’ve just updated our Official Community Plan, and this iteration includes new land-use zoning and building-design guidelines. In the coming year, staff will be putting into practice new energy-related planning policies that reference various steps of the BC Energy Step Code. In the meantime, we’re engaging our local homebuilder, developer, and design community on the new standard, and the benefits it brings us – namely buildings that perform better.

Norm Connolly, Community Energy Manager, City of New Westminster

Photo: Two infill homes by a builder participating in Natural Resources Canada's Local Energy Efficiency Partnership (LEEP), New Westminster BC (Part 9, Step 4; Energy Star Rating: R2000 Rating).

Supporting Local Government Climate Action

Since 2010, Sections 429(2)(d) and 473(3) of the **Local Government Act** have required that all new and updated Regional Growth Strategies and Official Community Plans include targets, policies, and actions to address climate change. Further, most local governments in BC have signed on to the Province's **BC Climate Action Charter**, which commits signatory local governments to a range of actions, including developing strategies and taking action to achieve “complete, compact, more energy-efficient rural and urban communities.”

Many local governments have adopted policies, bylaws, and incentive programs that seek to improve building energy efficiency, because a significant portion of a community's greenhouse gas emissions typically result from heating buildings.¹ These programs each define efficiency using different approaches, which has created a patchwork of requirements within the province. This makes it more challenging for professionals and trades that design and construct buildings to keep track of what the various standards require and where they apply.

To improve consistency across the province, **Section 5 of the Building Act will make local bylaws that establish technical building requirements unenforceable, effective December 15, 2017, unless the requirements are for “unrestricted matters,” which include the BC Energy Step Code.**² The **BC Energy Step Code** provides a tool for local governments to encourage or enforce a higher energy-efficiency standard, by incorporating the **BC Energy Step Code** into the **BC Building Code**. New policies and bylaws referencing the **BC Energy Step Code** may become enforceable starting December 15, 2017. This provides greater consistency and clarity across different jurisdictions using one standard, with multiple levels of efficiency.

1. BC Community Energy and Emissions Inventory 2012 (CEEI), BC Ministry of Environment.

2. Section 5 came into force on December 15, 2015, but due to the transition period imposed by section 43 of the Act, it does not apply until December 15, 2017. Unrestricted matters are described further here: <http://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards/building-act/consistency>.

Supporting Industry Leadership

Builders anywhere in the province can voluntarily use the **BC Energy Step Code** as a new compliance path for meeting the energy efficiency requirements of the **BC Building Code**.

A number of the province's builders already build to advanced performance standards voluntarily. However, with notable exceptions, high-performance buildings remain a niche product. The **BC Energy Step Code** provides a consistent approach that allows the market to gradually build capacity and skills, and reduce costs over time.

Supporting a Green Economy

Research shows the global green-building market doubles every three years and the value of the green building materials market is expected to reach \$234 billion by 2019.¹ ² BC is already a green building design and construction leader, boasting some of highest-performing buildings in North America. According to recent research, almost 12,000 people work in green architecture and related construction services in BC, while close to 9,000 work in clean energy services.³ The **BC Energy Step Code** could open up new local economic development opportunities, and help unlock a significant export opportunity.

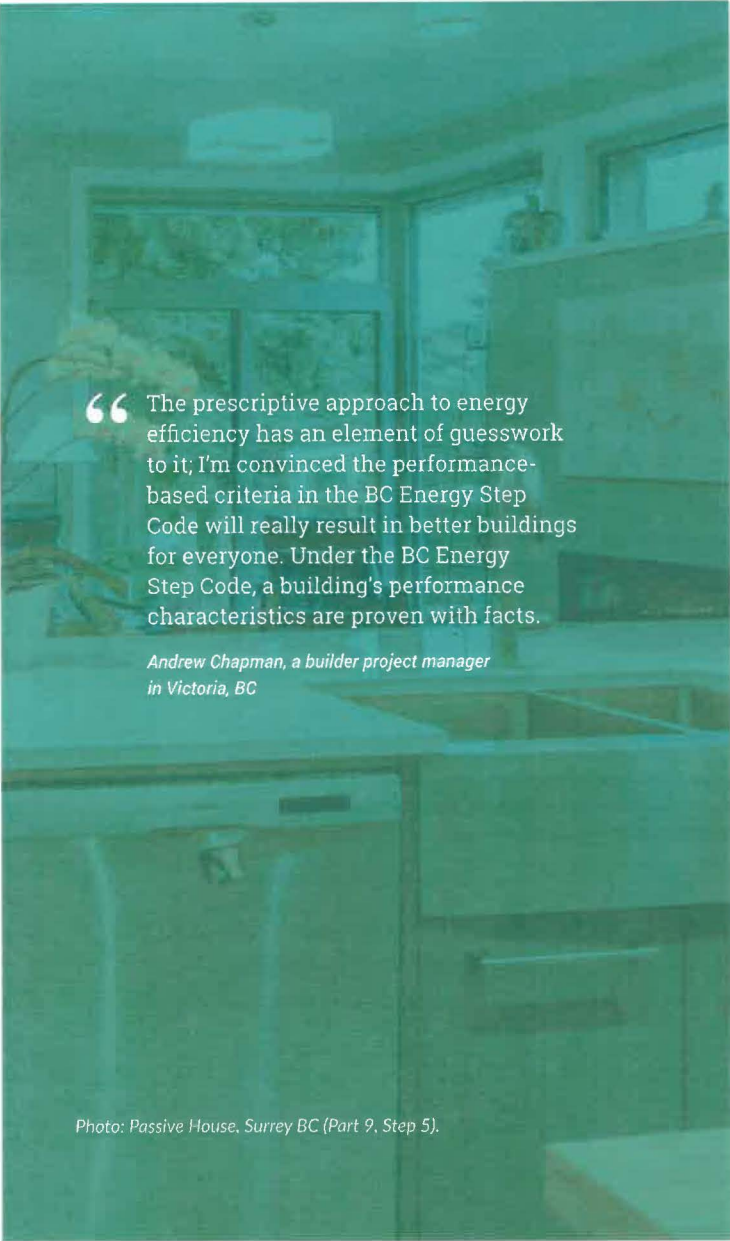
1. "World Green Building Trends 2016, Developing Markets Accelerate Global Green Growth," World Green Building Council.

2. "Green Building Materials Market - Global Industry Analysis, Size, Share, Growth, Trends and Forecast, 2013 - 2019," Transparency Market Research.

3. "West Coast Clean Economy: 2010-2014 Jobs Update," Delphi Group, November 2015.



Pre-fabricated walls being manufactured at a facility in Agassiz BC, photo by Monte Paulsen (Part 9, Step 5).



“The prescriptive approach to energy efficiency has an element of guesswork to it; I’m convinced the performance-based criteria in the BC Energy Step Code will really result in better buildings for everyone. Under the BC Energy Step Code, a building’s performance characteristics are proven with facts.

Andrew Chapman, a builder project manager
in Victoria, BC

Photo: Passive House, Surrey BC (Part 9, Step 5).

1.2 Preparing for Net-Zero Energy Ready Buildings by 2032

Shifting to a Performance-Based Approach

The Province of British Columbia first introduced energy efficiency as a requirement in the *BC Building Code* in 2008. Since that beginning, designers and builders have had the option to take either prescriptive or performance approaches to code compliance.

To date, the vast majority of buildings in BC have demonstrated compliance through a “prescriptive” approach – where buildings must meet specific requirements for insulation, windows, furnaces, water heaters, lighting, and other equipment and systems. This approach focuses on individual elements, rather than ensuring the building functions well as a system. The result can be a building that meets prescriptive requirements but does not perform as well as intended.

A “performance” approach is already an option for complying with the energy efficiency requirements in the *BC Building Code*, and a specific form of the performance approach is required for the *BC Energy Step Code*. **The performance approach establishes a desired outcome, and leaves it to the design and building team to decide how to achieve the outcome.**¹

Whole-building energy modelling and on-site testing are required to demonstrate how the design, and how the constructed building, meet the requirements in the code, but there are no requirements regarding what materials or construction methods need to be used.

This echoes the approach taken by most green building programs, including Natural Resources Canada’s Energy Star for New Homes and R-2000 programs, and The Canadian Passive House Institute Passive House certification, as well as the Canadian Home Building Association’s Net Zero Home and Net Zero Ready Home labels.

¹. For more information on the difference between prescriptive and performance approaches, refer to “Understanding BC’s Building Regulatory System” (p7). http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/buildingactguide_section1_june2015_web.pdf

Over time, the building industry will integrate these techniques into all new buildings as high-performance designs, materials, and systems become increasingly available and cost-effective.

By 2032, the BC Building Code will move towards the higher steps of the BC Energy Step Code as a minimum requirement. The National Building Code of Canada will also be moving towards this outcome by 2030.

Collaboration to Support the Path to Net-Zero Energy Buildings

Between 2014 and 2017, the Province launched a series of consultations to engage with the building and development sectors – and the trades and professions that support them – as well as local governments, utilities, and other stakeholders, to identify a consistent approach to increasing energy-efficiency standards. The consultations worked towards consensus on the core elements of what would become the *BC Energy Step Code*.

The Energy Step Code Council and the Province: Role and Mandate

The Province holds regulatory authority with respect to the *BC Energy Step Code*. As identified in the *Provincial Policy: Local Government Implementation of the BC Energy Step Code (Provincial Policy)*, the Province established the Energy Step Code Council (ESCC) with a mandate to support the successful implementation of the *BC Energy Step Code*, and the market transition to net-zero energy ready buildings. Members of the ESCC were involved in the Province’s consultations during the development of the *BC Energy Step Code*.

The Province will continue to obtain input from the ESCC, which serves as a “bridge” between the Province, utilities, local governments, and the design, building, development, and construction sectors, to ensure local governments adopt steps of the *BC Energy Step Code* in a responsible manner. The ESCC will monitor impacts on housing affordability and rates of implementation by local governments, and will address

unintended consequences that may arise. The ESCC also establishes best practices for the local government sector to support local governments in the judicious use of the *BC Energy Step Code*. The Province may act to resolve issues that arise. Issues identified by the ESCC may also inform future changes to the technical content of the *BC Energy Step Code*, or how it is implemented.

The ESCC does not have any formal regulatory or administrative authority, however, it provides a venue for stakeholders to gather and share information, and work collaboratively to resolve issues as they arise. The ESCC provides the Province with an opportunity to monitor and track implementation of the *BC Energy Step Code*, which could inform future changes to the energy-efficiency requirements in the *BC Building Code*.

The role of the ESCC is to:

- Share information and support the Province with the implementation of the *BC Energy Step Code* in line with the *Provincial Policy*.
- Advise and make recommendations on technical aspects of the *BC Energy Step Code*.
- Provide input to the Province and local governments on policy and regulation related to the *BC Energy Step Code*.
- Identify industry, local government, and provincial needs for successful adoption of the *BC Energy Step Code*.
- Monitor adoption of the *BC Energy Step Code*.
- Coordinate and direct research, communication, and training related to the *BC Energy Step Code*.



The ESCC is comprised of associations representing industry professions and trades, local government and public sector organizations, and utilities and consumer interests (see logos of Energy Step Code Council members on page 2 of this Guide). Representatives of three departments at the Province of British Columbia provide guidance.

The ESCC is committed to building consensus between stakeholders. Consensus does not require unanimous agreement, but it does require working together, as a group, to make decisions based on the strongest areas of agreement. The new standard will have a greater chance of success if local governments implement it thoughtfully, with due care to appropriate incentives, industry capacity, affordability, and market conditions. This Guide provides tools and advice to achieve these outcomes.

2

How the BC Energy Step Code Works

2.1 Relation to the BC Building Code

Local governments can choose to require or incentivize builders to meet one or more steps of the **BC Energy Step Code**, as an alternative to the compliance paths set out in the base **BC Building Code**. For local governments, the **BC Energy Step Code** offers greater assurance that new buildings are designed for energy efficiency and are constructed as designed. Meanwhile, builders have a consistent set of performance standards throughout the province and flexibility in how they achieve the higher standards.

The **BC Building Code** separates all buildings into two basic categories – Part 9 and Part 3. The requirements of the **BC Energy Step Code** are also defined according to these building types, so it is important to understand the difference between them. These categories will be used throughout this Guide.

What are "Part 9" and "Part 3" Buildings?



Part 9 – Houses and small buildings.

These buildings are three storeys or less and have a building area or "footprint" no more than 600 square metres (approximately 6,500 square feet). This category includes single-family homes, duplexes, townhomes, small apartment buildings, and small stores, offices, and industrial shops.



Part 3 – Large and complex buildings.

These buildings are four storeys and taller and greater than 600 square metres in building area or "footprint". This category includes larger apartment buildings, condos, shopping malls, office buildings, hospitals, care facilities, schools, churches, theatres, and restaurants.

These definitions are simplified for the purpose of understanding the content of this guide. The official definition of Part 9 and Part 3 buildings can be found in the **BC Building Code**.

Photos: Top: Townhome in Township of Langley BC.

Bottom: 10-storey residential building in Vancouver BC, photo by Derek Lepper Photography.



Figure 1: Definition of Lower and Upper Steps by building type (Part 9 and Part 3)

2.2 How Many Steps Are There?

The steps are categorized into Lower and Upper Steps according to building types (see Figure 1). To achieve Step 1, builders need to use a whole-building energy model to calculate the energy use of the building and conduct an airtightness test, but the performance of the building only needs to be as good as the base *BC Building Code* requirements for energy efficiency. The purpose of **Step 1** is to familiarize builders with a new way of measuring energy efficiency although the actual construction of the building remains the same as conventional construction.

To achieve the Lower Steps, building and design professionals and trades can rely on conventional building designs with careful air-sealing practices, and incrementally incorporate some key elements in the design, building envelope, and equipment and systems. Builders and designers are advised to collaborate with the energy modeller to select the most cost effective way to meet the requirements. These Lower Steps give builders new flexibility in how to achieve modest gains in efficiency – through improved envelopes and/or upgraded systems.

To achieve the Upper Steps, builders and designers will need to adopt a more integrated approach to building design and may need to incorporate more substantial changes in building design, layout, framing techniques, system selection, and materials. These techniques and materials will be more costly and challenging without additional training and experience.

2.3 Transition Period

The *Provincial Policy* states that there will be a transition period of at least three years (2017–2020), during which time the Energy Step Code Council and member organizations will provide preliminary support to communities as they learn to apply the regulation. This policy also states that local governments should only adopt the Upper Steps in specific circumstances and in conjunction with appropriate incentives during the transition period (more details are provided in section 4.3).

2.4 Geographic Application

Currently, the *BC Energy Step Code* applies to all climate zones across BC for Part 9 buildings, and only to Climate Zone 4 (Lower Mainland and South Vancouver Island) for Part 3 buildings. In the future, the Energy Step Code Council will work with stakeholders and experts to develop proposals for Part 3 buildings in other climate zones (see Figure 2).

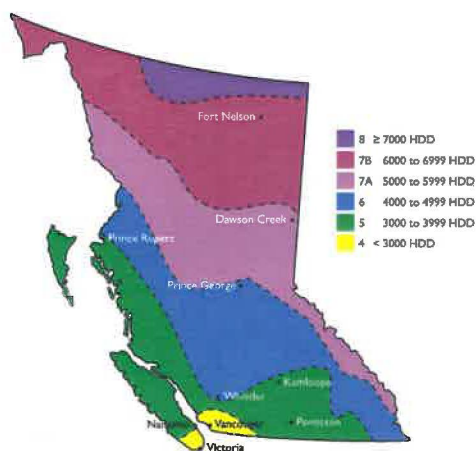


Figure 2: Map of BC Climate Zones, where zones are defined by the number of Heating Degree Days (HDD) in one year. The BC Energy Step Code for Large and Complex Buildings (Part 3) is only available in Climate Zone 4.

2.5 Technical Requirements

The *BC Energy Step Code* establishes requirements for **whole-building energy modelling**, including modelling the performance of building envelopes and equipment and heating systems. The energy model must demonstrate how the building design will meet a set of requirements that represent increasing levels of energy efficiency. Once constructed and before occupancy, the building must undergo **on-site airtightness testing** to ensure the building is constructed as designed and meets airtightness expectations.

A primer on each of these key elements is provided in section 5 of this Guide, to help local governments better understand the technical requirements of the *BC Energy Step Code*. The actual performance metrics requirements are also summarized in the tables in Appendix A for different climate zones and different building types. There are many resources available on energystepcode.ca that provide more in-depth guidance about building to meet the *BC Energy Step Code* requirements.

2.6 Considering Costs and Benefits

The *BC Energy Step Code* is at its core a market transformation tool; it aims to help to ensure that new buildings will be designed and built, from the ground up, to be as energy efficient as possible. **The most cost-effective time to invest in a building's energy efficiency is when it is first built.** Policy and regulation can help ensure that new buildings will be designed and built to be efficient.

However, communities are sensitive to any regulations that could impact builder costs in addition to those already incurred through fees such as development cost charges, and that potentially increase barriers to development. To better understand the financial implications of the *BC Energy Step Code*, BC Housing has commissioned one of the most sophisticated high-performance building costing assessments ever developed in Canada. The study will show how the various steps may impact construction costs in various building types,

and in different climate zones across the province. Though the research is underway, some preliminary findings and insights have emerged and are summarized here.

First, we characterize Step 1 as "enhanced compliance" – it involves demonstrating that a given building meets the existing energy-efficiency targets of the *BC Building Code*. For builders who have not previously used energy modelling to comply with the *BC Building Code*, or have not built to a standard that requires energy modelling, these initial projects may cost more. Generally:



For Part 9 buildings, engaging a registered Energy Advisor will cost a builder as little as \$600 – though charges may be higher based on the needed level of engagement. However, that same builder may uncover cost savings from finding a more optimal way to meet code requirements, such as by reducing the size of a furnace or certain windows. Using an energy model provides builders with new flexibility that is not available in the base *BC Building Code*, and this can provide the opportunity for cost savings.



For Part 3 buildings, energy modelling and airtightness testing are more complex and require a larger investment than for Part 9 buildings, but there is still an opportunity to reduce "red tape" because the *BC Energy Step Code* does not require certification or paperwork associated with many green building programs.

Second, buildings built to the Lower Steps of the **BC Energy Step Code** will incur slightly higher costs than those built to the prescriptive requirements of the **BC Building Code** (approximately 1–3% of construction cost, depending on building type and location in the province; note that this is different than the final cost, which also includes cost of land and other costs).

Finally, those built to Upper Steps will involve more of an investment in training and building components, and costs vary more widely than for Lower Steps. This is why local governments should not require Upper Steps community-wide for several years, and should instead be using incentives to encourage their construction. The Energy Step Code Council is also encouraging local and senior governments to demonstrate leadership by building public buildings to these Upper Steps.

Other findings from the BC Housing costing study include:

- It is generally easier and more cost-effective to achieve the steps in buildings that have simple forms and that share common walls, such as townhomes and apartments.
- Wood-frame multi-unit residential buildings will meet the standard more easily than similar concrete buildings. In fact, 4–6 storey wood-frame buildings built to the base **BC Building Code** are roughly equivalent to Step 2 for this building type.
- A building's form and orientation will have a significant impact on its performance. A simple design facing south will have an easier time meeting the steps than the same building facing north.
- It is generally easier for very large homes to meet the Upper Steps than for smaller homes, and it may be challenging for very small homes – such as coach houses and laneway homes – to meet the Upper Steps.
- In the province's colder northern regions, it may be challenging for homes to meet the Upper Steps altogether, without significant changes to building design.

Over time, as industry gains experience with these practices and energy-efficient products become more prevalent, cost discrepancies are likely to decrease. But the transition will not happen overnight.

To help support the industry through the transition to net-zero energy ready construction, BC Housing is developing **An Illustrated Guide on Cost Effective Tips and Optimization for High-Performance Homes and Buildings**, and will host related training webinars. Find links to the costing study, and these other resources, as they become available, at energystepcode.ca.

Benefits of the BC Energy Step Code

Buildings built to higher energy efficiency standards also provide multiple benefits – to home and building owners and occupants, to industry, and to the community.

Occupants often prefer these buildings as they:

- Better manage temperature, improving comfort.
- Better manage fresh air throughout the building, improving health.
- Better manage soundproofing, reducing exterior noise.
- Require less energy, reducing utility bills.

Industry will be able to appreciate a new level of consistency in the market and predictability throughout the province as we move to net-zero energy ready by 2032. In this environment, construction industry practitioners, vendors, and manufacturers can invest in developing products, services, and best practices to deliver competitive services and products for high-performance buildings.

Together, the benefits to occupants and industry combine with a stronger green economy, which benefits communities across the province. It also helps the province and communities meet the goals and targets they have set to reduce our contributions to climate change.



“The BC Energy Step Code provides a consistent, performance-based approach to improving building energy efficiency. This clear path allows architects to continue to be at the forefront of designing structures that meet energy reduction goals. Architects are shapers of our built environment, and play a key role in not only implementing these types of sustainable initiatives, but leading them. The AIBC will continue to be a longtime partner and supporter of the BC Energy Step Code.

Mark Vernon, CEO, Architectural Institute of British Columbia

Photo: The Budzey Building - a partnership between BC Housing, the City of Vancouver, and RainCity Housing, provides supportive rental housing as part of the Provincial Homelessness Initiative in Vancouver BC (Part 3, at least Step 3).

3

Applying the BC Energy Step Code: Policy Tools and Examples

In April 2017, the **BC Energy Step Code** became available to local governments to reference through bylaw and/or through policy to provide an incremental and consistent approach to achieving more energy-efficient buildings that go beyond the requirements of the base **BC Building Code**. Local governments may begin enforcing these requirements as of December 15, 2017. To support energy conservation and greenhouse gas reduction objectives, Section 5 of the **Building Act** ("Unrestricted Matters") provides local governments the authority to reference the **BC Energy Step Code**.

This section of the Guide provides hypothetical approaches that local governments may select to apply the **BC Energy Step Code** using a combination of tools appropriate for their circumstances – each demonstrating how to incrementally apply the Lower and Upper Steps. This is followed by a listing of policy tools that could be used by local governments to support, remove barriers, incentivize, or establish a requirement for specific step(s) across the community, by building type, by geographic area, and/or by approval mechanism (e.g., rezoning). Adjacent to the policy tools, related examples of programs in place in BC communities are provided to demonstrate how the tools can be employed to support increased energy efficiency in new buildings, demonstrating a variety of approaches suitable to individual communities.

3.1 Example BC Energy Step Code Approaches

The **BC Energy Step Code**'s flexible framework allows each local government to select steps, policy mechanisms, scale, and types of incentives suitable to each community, ensuring sufficient local government capacity to administer the program and local industry capacity to meet the new standards. Figure 3 below shows three example approaches that could be taken to suit different communities. Guidance for selecting your community's approach is provided in Section 4.

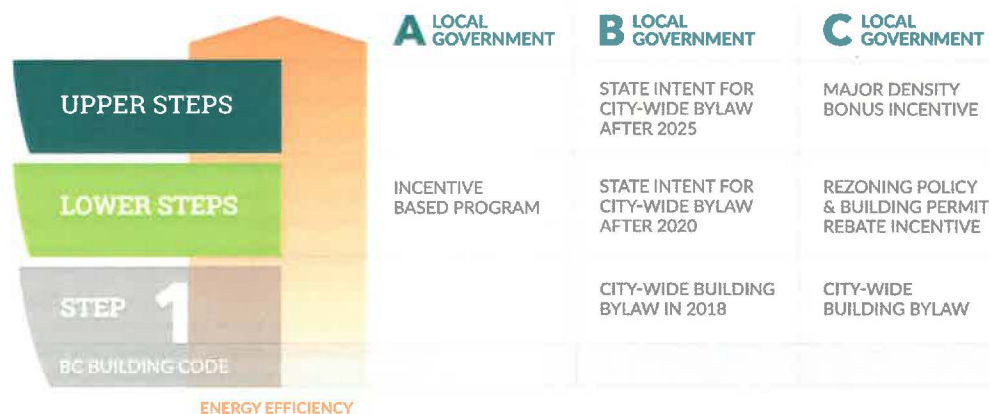


Figure 3: Three examples of BC Energy Step Code strategies for local governments

Local Government A may be new to requiring energy efficiency in buildings, in this example. Perhaps this government has reviewed local capacity, and has determined that capacity is insufficient to implement Upper Steps, but sees the value in preparing for future changes in the *BC Building Code* as the province moves towards net-zero energy ready buildings by 2032. This government may decide to begin with a cautious approach, offering a voluntary, incentive-based program. This government might achieve its objectives via an Energy Advisor rebate program, building permit rebate, fast tracking of building permits, density bonus, or other voluntary incentives.

Local Government B may find through consultation with local industry that there is sufficient capacity to achieve Step 1 across the community, because there is familiarity with and expertise for energy modelling, airtightness testing, and meeting performance-based requirements. The local government may have previously provided an incentive program for these elements, supported capacity-building initiatives, or found industry has met these requirements in several existing buildings in the community to date. Also following consultation with industry, the local government may determine that, with appropriate capacity-building efforts and successful implementation of Step 1, they intend to require the Lower Steps for all buildings after three years. The local government may also decide to indicate the intent to require Upper Steps, if Lower Steps are successfully implemented, after 8–10 years of implementation. This provides a clear indication to industry how the local government is supporting the transition to net-zero energy ready buildings over the next decade or more.

Local Government C may understand through internal and external consultation that the community has more experience with high-performance buildings, and more industry and internal administrative capacity to deliver them. This local government may be ready to take a more ambitious, multi-faceted approach, building on previous programs that support energy-efficient buildings in the community. In this case the local government may adopt several steps as follows: Step 1 could be introduced in a jurisdiction-wide building bylaw, Step 3 could be a mandatory requirement for rezoning across the jurisdiction, and Upper Steps could be negotiated in select circumstances or locations. To encourage the highest level of energy efficiency that supports the community's sustainability, affordability, and health objectives, the government might also introduce a design competition. This local government would also likely provide an indication of timing for future requirements.

A Role for the Regional District

With respect to *BC Energy Step Code*, regional districts may play two separate roles: first, the regional district may consider the applicability of adopting these higher building requirements where it administers and enforces the *BC Building Code*, and second, the regional district may play a role in coordination and communication among all local governments in a region. Although each member municipality will determine an appropriate approach for its community, the regional district can keep members informed of activities, successes, challenges, and other important information to support successful incremental adoption of the new performance standards. Where industry works across several municipal boundaries in a region, a regional district can host conversations to support coordinated or staggered implementation of requirements, taking into consideration capacity at a region-wide scale.

“ BC engineers work to high standards to support our communities for the future. The BC Energy Step Code is a valuable tool for achieving energy reduction goals, and provides a consistent approach that will bring great benefit to the work that our members, licensees, and other members of the building community, are doing.

Ann English, P.Eng., CEO and Registrar, Engineers and Geoscientists BC

Photo: Foundation for a Passive House, North Vancouver BC (Part 9, Step 5).



3.2 Outline of Policy and Bylaw Tools

Several policy tools are available to local governments to reference the *BC Energy Step Code*, as outlined in this section. Some of these tools provide **general awareness and policy support**, others are suitable for **providing incentives** to achieve specified steps, some may be used to **require targeted buildings** to achieve specified steps, and finally, others are important to review to **remove barriers** to achieving the requirements of the *BC Energy Step Code*. Governments may also employ some tools to **demonstrate leadership** and support adoption of the *BC Energy Step Code*. It is prudent to conduct a legal review prior to moving forward with one or more of these tools, particularly if you are considering the use of a tool that your local government has not employed previously.

Many tools have already been used in communities around the province to support energy efficiency in buildings. This section also provides examples demonstrating how the tools have been put into practice in BC communities, supporting a range of energy efficiency equivalent to Lower and Upper Steps.

How One Tool can be Employed to Achieve Various Outcomes

Several of the tools identified in this section may be applied in different manners with vastly different results. Depending on how it is implemented, one tool could be applied to simply encourage a few early adopters to conform to the identified steps, or to incentivize a moderate to substantial uptake of the identified steps. **It is up to each local government to work with community stakeholders to select the tool(s) that are most suitable for their circumstances.**

For example, a density bonus tool can be applied to obtain a range of results. A density bonus is a zoning tool that permits developers to build more floor space than would otherwise be allowed – thereby yielding more revenue from their project – in exchange for providing community amenities, which may include energy efficiency.

When the bonus floor space offered entails only a small increase in value over current allowance, the tool functions best as a voluntary encouragement for energy-efficient buildings among a minority of new buildings (e.g., 5%). However, when the bonus floor space offered amounts to a significant increase in value, then the result can be significant uptake, with the vast majority of new buildings opting to meet the higher energy efficiency standards (e.g., 95% or more).

When applying a density bonus tool to incentivize achieving a particular step, it is important that the density be “new” and be commensurate in value to the incremental investment being made in energy efficiency.¹

1. For more information about best practices for community amenity contributions, refer to the Ministry of Community, Sport and Cultural Development guide *Community Amenity Contributions: Balancing Community Planning, Public Benefits and Housing Affordability* (http://www.cscd.gov.bc.ca/igd/intergov_relations/library/CAC_Guide_Full.pdf).



“The BC Energy Step Code presents a great opportunity for the building industry to help meet our provincial climate change goals through the design and construction of more energy-efficient buildings. We look forward to collaborating with local governments to ensure its pragmatic and orderly implementation.

Bob de Wit, CEO, Greater Vancouver Home Builders' Association

Photo: Clayton townhome development in Surrey BC, achieving ENERGY STAR for new homes (Part 9, Step 3).



A. Tools for general awareness and policy support

TOOL DESCRIPTION

The *Local Government Act* authorizes the development of **official community plans (OCPs)** to provide a vision for the community over a minimum 5-year time period. OCPs are significant because, after their adoption, all bylaws and works undertaken by a Council or Board must be consistent with the plan.

A **community energy and emissions plan (CEEP)**, also sometimes called a **community energy plan** or **climate action plan**, provides a vision and sets a target for how a community will reduce its energy use and greenhouse gas emissions over time. It provides specific actions and implementation plans for achieving the target, and is useful to indicate the policy direction a community will take.

A **neighbourhood plan** or **local area plan** sets out a strategy for the planning of a specific area within a local government and for a timescale as specified by the local government. The plan must consist of a written statement and map, which set out the local government's objectives for the plan area.

Local governments may provide **tools** for building assessment and performance measurement and **learning forums** to connect industry with energy efficiency expertise, practitioners and products.

A **sustainability checklist** is a non-regulatory tool used to encourage new development and buildings that support and advance community sustainability objectives. Local governments may require development applications include submission of a checklist as part of the approvals process.

BC ENERGY STEP CODE CONSIDERATIONS

- Include a policy statement about *BC Energy Step Code* to provide a **clear signal** to the community and industry that energy efficiency is important.
- Include *BC Energy Step Code* as an action in the CEEP to provide a **clear signal** to the community about upcoming expectations with respect to new buildings.
- **Pilot a new energy efficiency policy in one geographic region** before expanding to cover the whole community.
- Provide learning forums and tools to **support market transformation** in your community.
- Include the *BC Energy Step Code* on your sustainability checklist to **signal** that energy efficiency is important to the community and to **support voluntary uptake** of the *BC Energy Step Code*.

RELATED CASE STUDY

City of Surrey West Clayton Neighbourhood Concept Plan

STEPS 1 TO 3, PART 9 & 3

The City developed a neighbourhood plan that includes a density bonus policy where additional density will be provided to new developments in exchange for achieving higher standards of energy efficiency. The objectives of the density bonus policy include the following:

- To mitigate the emissions of greenhouse gases associated with the operation of buildings.
- To minimize the demand for electricity and natural gas in buildings.
- To reduce building operating costs for owners and occupants.
- To improve the comfort and indoor air quality of buildings.

The additional density on offer varies by building size and type, as do the energy-efficiency requirements that must be met in exchange. For example, residential developments with buildings less than four storeys may obtain additional density between two and five units per acre, in exchange for having all buildings be certified to meet the ENERGY STAR® Canada standard (approximately Step 3). For buildings greater than or equal to four storeys, additional floor area will be provided in exchange for building compartmentalized suites, installing in-suite heat-recovery ventilators, undertaking building commissioning, and meeting airtightness standards.



Photos: Top: City of Surrey rendering of types of development possible in the West Clayton Neighbourhood Concept Plan, adjacent to an aerial photo showing the current land use. Bottom: Stakeholders participate in a planning process in Surrey BC.



B. Tools to provide incentives

TOOL DESCRIPTION

Greenstreaming, or “fast-tracking,” is an incentive that local governments can offer developers to achieve energy efficiency (or other environmental objectives) in new developments.

The **climate action revenue incentive program (CARIP)** provides a grant to BC Climate Action Charter signatories that meet a set of requirements - including a requirement to publicly report progress toward carbon neutrality in their operations. The grant is equivalent to 100% of the local government's direct expenditure on the carbon tax.

A **building permit rebate program**, or “feebate,” is an incentive program that rebates a portion or all of a fee for achieving environmental objectives, including higher energy-efficiency standards in buildings.

An **Energy Advisor rebate program** can be developed to subsidize engaging an Energy Advisor/modeller, encouraging residents and industry to adopt a performance-based approach to energy efficiency.

A **revitalization tax exemption (RTE)** is a tool for local governments to encourage various types of revitalization to achieve a range of social, economic, and environmental objectives by offering relief from property tax for a prescribed term. A revitalization program may apply to a small area(s), a certain type(s) of property, a particular activity or circumstance related to a property(ies), or an entire municipality. In 2007, the **Community Charter** [R545], which establishes authority to create RTE bylaws, was changed to make it easier for green development to apply for RTEs.

BC ENERGY STEP CODE CONSIDERATIONS

- Fast-track **BC Energy Step Code** applications as a **valuable incentive** for Lower or Upper Steps (ensuring the wait times actually decrease for these applications).
- Be sure to consider potential impacts on wait times for non-**BC Energy Step Code** applications.
- Redirect CARIP grant to **fund a program that incentivizes compliance with the BC Energy Step Code** (e.g., to fund a building permit or Energy Advisor rebate program).
- In most cases, provide a **modest incentive** to support uptake of the **BC Energy Step Code**, particularly Lower Steps.
- May be used with other benefits to incent Upper Steps.
- Consider using the local government's CARIP grant to fund this program.
- Provide a **significant incentive** toward uptake of **Step 1**, supporting a market transformation and preparing industry for higher steps.
- Provide a **moderate to high level of incentive** to support uptake of the **BC Energy Step Code**.
- May be suitable to encourage Upper Steps in some circumstances.

City of Kimberley

Building Permit Rebates

STEP 2, PART 9 & 3

The City of Kimberley has offered builders an Energy Efficient Building Incentive Program since 2014 and recently updated it to align with the **BC Energy Step Code**.

All new residential and commercial buildings in the city qualify for an initial rebate of \$500 off the cost of a building permit, subject to the completion of a pre-construction EnerGuide evaluation report. This will offset the fees associated with an Energy Advisor to complete energy modelling.

Following project completion, an EnerGuide Energy Efficiency Evaluation report from a Registered Energy Advisor must be submitted showing either the final EnerGuide level for a new building or the pre-and post-project EnerGuide levels for renovations to existing buildings.

Further building permit rebates are available, scaled to align with the **BC Energy Step Code**. A very high performing building (e.g., Step 5 equivalent performance) will generate a rebate of up to 80% of building permit fees. The City reports that the program has seen close to 90% enrollment so far in 2017, and it continues to push both builders and the municipality to keep the horizon of net-zero energy ready homes in focus. Kimberley believes that small communities will benefit from a reduced reliance upon energy as the costs for delivery, infrastructure, and maintenance are all higher in rural areas.

Township of Langley

Building Permit Rebates

ALL STEPS, PART 9

Since 2014, the Township has incentivized energy-efficient construction via a voluntary Green Building Rebate Program. The program offers builders reduced permit fees if they meet a range of performance targets, with the incentive funded by a minor sustainability fee levy applied to all building permits.

Participating builders have their plans evaluated by a Registered Energy Advisor through a subsidized cost – a service the Township funds as an educational and capacity-building component of the program. A building permit rebate of up to \$750 is available for a single-family dwelling achieving EnerGuide 80 or above, while a rebate of \$150 per unit is available for a multi-family dwelling achieving EnerGuide 82 or above.

In 2017, the Township amended the program to realign it with the revisions to the EnerGuide system, include and recognize other common industry ratings and programs, expand it to encourage energy-efficient upgrades or renovations to existing single-family dwellings, and introduce a multi-tiered rebate structure to allow for a more varied market uptake. In doing so, it has positioned the fees to align with the various performance requirements of the **BC Energy Step Code**.

Photos: Top: Energy efficient home in Langley BC that participated in the Township's program.

Bottom: Energy efficient home in Kimberley BC that participated in the City's program, photo by Chris Pullen, Cranbrook Photo.





C. Tools to provide incentives or mandate requirements

TOOL DESCRIPTION

Zoning bylaws define how specific areas of land can be used by implementing land-use policies set out in Official Community Plans and Regional Growth Strategies. A local government's core zoning authority is set out in the *Local Government Act*, Section 479. A rezoning is a legal change to the zoning bylaw to permit an alternate type of development. Rezonings typically occur in response to objectives set out in an OCP or neighbourhood plan. Local governments have considerable influence and opportunity to encourage sustainable development through rezoning. A **rezoning policy** sets out objectives or criteria that the local government wishes to achieve in projects undergoing rezoning.

A **density bonus** allows development at a level of density that surpasses the allowable FSR under the OCP or neighbourhood plan in exchange for providing Community Amenities (which help a community meet its goals). These amenities typically include parks, heritage preservation, and affordable housing. One may also offer increased density in exchange for greener development as an amenity to the community. Density bonuses must be established in **zoning bylaws** that set out the specific conditions needed in order to receive the increased FSR.

Section 516 of the *Local Government Act* permits local governments to enter into **phased development agreements (PDAs)**. These have the effect of protecting developments from subsequent zoning and development permit changes for a specified period of time. As PDAs replace zoning by way of bylaw for the term of the agreement, the process required to enter into such an agreement is consistent with that for a zoning bylaw.

Local governments are authorized to use **building bylaws** to regulate construction and to administer and enforce the *BC Building Code*. Building bylaws are applicable across the community. Building bylaws may have sections applicable only to specific building types and/or geographic areas. Sentence 8 (3) (l) and Division 8 of the *Community Charter* govern this authority.

BC ENERGY STEP CODE CONSIDERATIONS

- When used as an incentive mechanism, identify opportunities to obtain "new" density (above and beyond that already available to the property) for achieving specific steps, where the increased value is at least commensurate with the incremental investment in energy efficiency.
- See also density bonus and Phased Development Agreements.
- Can provide a **significant incentive**, and may be useful for either **Lower or Upper Steps**.
- Especially effective where land values are high.
- Negotiate a PDA requiring buildings reach specified steps (best applied for large sites).
- Could be employed for **Lower or Upper Steps**, depending on the specific circumstances of the development.
- May be particularly useful when a community is **introducing a new step** that has not been broadly met in the community to date.
- Can **require compliance** with a **Lower Step** across the whole community during the transition period (as defined in section 2.3), where the community and industry have sufficient capacity. Or, the Building Bylaw may specify requirements by building type and/or by geographic region.
- Following successful completion of the transition period, the Building Bylaw may be useful for applying **Upper Steps**; however, at this time it is most suitable for Lower Steps.

City of Richmond

Townhouse Rezoning Policy

STEP 3, PART 9

In 2014, the City of Richmond introduced a Townhouse Energy Efficiency and Renewable Energy Policy. Applicants seeking to build to a higher density by rezoning single-family lots for townhouse development are required to build to better-than-Building Code levels of energy efficiency. Under the City's policy, applicants choose from four options, including connecting to a district energy utility (DEU), installing on-site renewables to supply at least 51% of energy demand, building to the ENERGY STAR for New Homes standard or achieving an EnergyGuide score of 82 or better (under the 1 - 100 scale) for every unit in the development. While the ENERGY STAR for New Homes Standard option approximates the level of performance required for Step 3, most applicants have selected the EnergyGuide 82 option for new townhouse units, delivering a performance equivalent to Step 2 of the **BC Energy Step Code**.

City of North Vancouver

Moodyville Pre-Zoning

STEPS 4-5, PART 9 & PART 3

In May 2016, the City of North Vancouver approved an extensive rezoning that aims to quadruple the population of the city's Moodyville District – a neighborhood adjacent to the city's industrial waterfront, and to the east of the popular Lower Lonsdale district.

As part of the Moodyville area redevelopment initiative guidelines, the City has provided a Density Bonusing mechanism in the zoning bylaw to allow developers to increase their buildable floor area ratio by as much as 320% if they meet an Upper Step performance requirement equivalent (equivalent to **BC Energy Step Code** 4 or 5). This is approximately a net-zero energy or Passive House level of performance.

The City has a long history of working with the local development industry to increase energy efficiency of new buildings, and this advanced program builds on this history to further increase the levels of energy efficiency achieved in specific new buildings. North Vancouver is leading the way for other communities that may follow – demonstrating how to incrementally increase energy-efficiency requirements, and over time, gain sufficient local capacity to offer builders a significant increase in density in exchange for a significantly higher level of performance.



Photos: Top: Moodyville area before redevelopment.

Bottom: Rendering of the Moodyville area after it has undergone redevelopment, illustration by Frank Ducote.





D. Tools to remove barriers

TOOL DESCRIPTION

Local governments may adopt **design guidelines** and policies to achieve certain objectives with new developments, ranging from accessibility, to heritage preservation, to view protection, to landscaping, and many more.

Floor Space Ratios (FSRs) are established in zoning bylaws and they dictate the total floor area permitted in buildings, based on the size of the subject properties. Often, FSR is calculated to the exterior perimeter of the building (including exterior walls). This can effectively penalize buildings for featuring more highly insulated walls - they will have less habitable floor area-unless energy-performance-related FSR exclusions are implemented.

Local governments are authorized to use **building bylaws** to regulate construction and to administer and enforce the **BC Building Code**. Building bylaws are applicable across the community. Building bylaws may have sections applicable only to specific building types and/or geographic areas. Sentence 8 (3) (l) and Division 8 of the **Community Charter** govern this authority.

BC ENERGY STEP CODE CONSIDERATIONS

- Review to ensure guidelines do not **unintentionally make Upper Steps more costly** or unachievable (e.g., by encouraging building forms that are inherently energy inefficient).
- **Align** design guidelines with best practices in energy efficient design.
- Adjust FSR calculation methodologies to **ensure thicker walls with more insulation are not penalized**, by basing calculations on the habitable floor area (inside exterior walls).
- Review your Building Bylaw to **remove any procedures that unintentionally inhibit the BC Energy Step Code** (e.g., procedures for compliance with prescriptive requirements).

Resort Municipality of Whistler Gross Floor Area Calculations

REMOVING BARRIERS

In 2012, the Resort Municipality of Whistler amended their Gross Floor Area definition to exclude any incremental exterior wall thickness beyond six inches from the calculation of gross floor area for detached and duplex dwellings. This change reduced a previous barrier to the construction of thicker more energy efficient wall assemblies (e.g., Passivhaus construction methods).



Photos: Top: Spruce Grove Passive House in Whistler BC, photos by Kristen McGaughey Photography (Part 9, Step 5). Bottom: Thickness of a wall from a pre-fabricated panel built in Agassiz BC to Passive House standards, photo by Monte Paulsen (Part 9, Step 5).





E. Tools to demonstrate leadership

TOOL DESCRIPTION

A **corporate policy** can be put into place to require all new civic buildings meet a particular standard that supports a corporate or community objective.

Local governments may have opportunities to encourage other **public sector buildings** to achieve particular standards for new buildings in their community boundaries.

Provision of local government-owned land for re-development to meet OCP or neighbourhood plan objectives that are not likely to be achieved without support from the local government (for example, if the land requires remediation and renewal, or there is a desire for mixed-use development, social housing, energy efficiency, renewable energy, or other features that may be cost-prohibitive in the existing market). The price for the land can be set at a rate that is financially viable for both the local government and for the developer undertaking the project, while conforming to requirements of the *Community Charter* and *Local Government Act*.

BC ENERGY STEP CODE CONSIDERATIONS

- Include **requirements in tenders** for new facilities to achieve the Upper Steps.
- Help **transform the local market** by providing valuable experience with meeting *BC Energy Step Code*.
- Identify performance standards for institutional buildings in policy (e.g., OCP, Local Area Plan).
- Encourage applicable provincial or federal agencies to voluntarily adopt *BC Energy Step Code* standards or equivalent.
- Where additional density is proposed (particularly residential density), incorporate *BC Energy Step Code* requirements in the rezoning process.
- Include **requirements** in development approval for buildings to achieve the Upper Steps.
- Help **transform the local market** by providing valuable experience with meeting *BC Energy Step Code*.

Regional District of East Kootenay

Regional collaboration to advance energy efficiency

PART 9, ALL STEPS

Since 2013, the Regional District of East Kootenay has supported, together with the Columbia Basin Trust and BC Hydro, a community energy management program that supports all municipalities in the region in achieving energy efficiency and GHG emission reduction goals. By taking a collaborative, region-wide approach, smaller municipalities in the region have been able to undertake an array of successful initiatives, including:

- Facilitating the East Kootenay Energy Diet for home retrofits
- Hosting builder workshops to introduce performance-based compliance approach and techniques for improving and measuring energy efficiency
- Developing supporting policies for energy-efficient buildings, including a voluntary incentive policy to encourage performance pathway for building code compliance and an incremental building permit rebate aligned with Step 2-5 of the *BC Energy Step Code*
- Development of 'Building a Legacy' a year-long engagement initiative to educate and train builders, trades, realtors, consumers and local government staff and elected officials
- Construction of a set of mobile wall assembly units, suitable for hands-on training for all stakeholders as part of 'Building a Legacy'

Within the Regional District, the City of Kimberley and District of Sparwood have been early adopters of the supporting policies for enhanced compliance and Step 2-5 rebate structures. Builders from across the East Kootenay have engaged in training, with over 40 builders gaining Energy Star certification in 2016. Further to coordinating all of these initiatives, the regional community energy manager also supports each local government staff and council through responses to inquiries, research and regular communication.



Photos: Left: Thermal image being taken during a builders' workshop in Fernie BC; the home is designed to achieve at least Part 9, Step 3.



Right: Blower door testing during a builders' workshop held in Invermere BC; the home is expected to exceed EnerGuide84 (equivalent to Part 9, Step 3).

4

Developing Your BC Energy Step Code Strategy

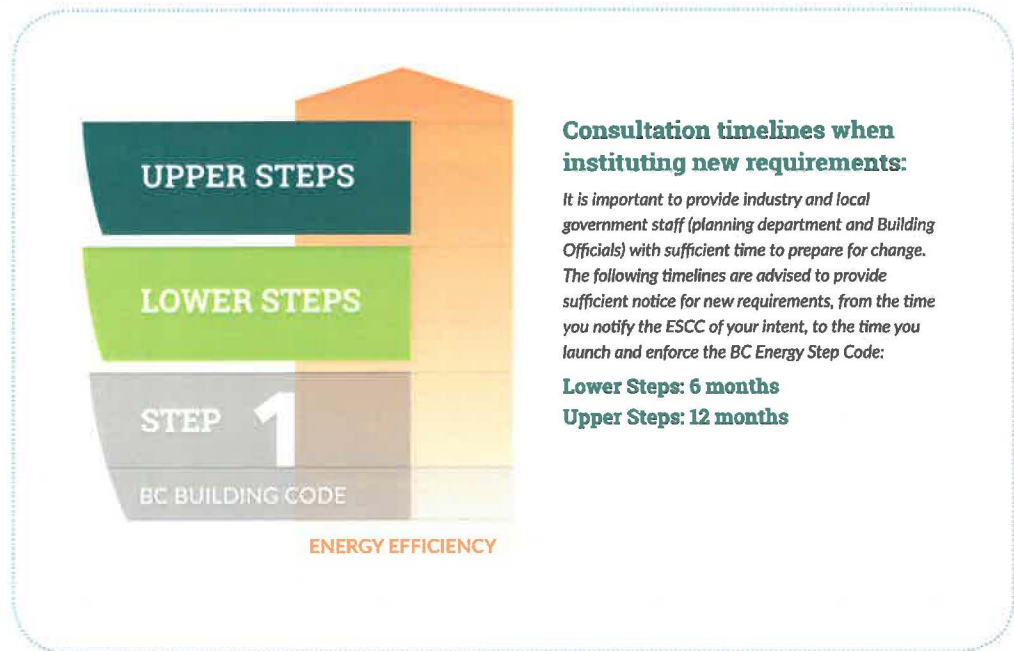
4.1 Key Steps to Develop Your Strategy

All local governments are encouraged to develop a comprehensive strategy when incentivizing or requiring one or more steps. Taking a strategic approach to the *BC Energy Step Code* will involve understanding the scope and opportunity provided by the legislation, as well as consulting with relevant stakeholders in your organization and community to identify and assess risks and opportunities.

These discussions will inform the approach that is most suitable to your community, and will give your local building community time to plan and prepare for the coming changes.

For the transition period – at least until 2020 – local governments that are considering the application of the *BC Energy Step Code* on a community-wide scale should only require the Lower Steps, except in specific circumstances where Upper Steps might be required when paired with appropriate benefits.

The following section outlines the key steps to defining an approach to the *BC Energy Step Code* suitable to your community. Each community will need to establish a specific process that fits its circumstances.





Refer to the BC Energy Step Code web site (energystepcode.ca) for resources, updates, training publications, and webinars.

1

Review resources.

- Review communications, awareness and training publications, and webinars available at: energystepcode.ca
- Contact BC Housing to help identify energy-efficient buildings and energy-efficiency expertise in your area
- Join a local government Peer Network to work together on effective **BC Energy Step Code** implementation. Contact BC Hydro for more information (sustainablecommunities@bchydro.com)

2

Notify the ESCC of intent to consult and reference the BC Energy Step Code.

Visit energystepcode.ca to obtain the form and instructions on how to notify the ESCC

3

Consult, define your program details **and prepare** policies and/or bylaws.

A. Conduct consultation

- Establish a process and determine who you need to engage and why (see 4.2)
- Develop clear timelines that meet the Provincial policy (see 4.3)
- Re-engage as needed, being sure to incorporate sufficient time should your approach change after consultation

B. Consider appropriate tools

- Identify **tools** to reduce barriers, mandate changes, and/or demonstrate leadership in civic buildings (see 3.2)

C. Review policies and processes

- Streamline affected development approvals
- Minimize the impact on building permit approval timelines (see 4.4)
- Harmonize with district or alternative energy policies (see 4.5)

D. Identify communications and awareness needs

- Which staff, elected officials and advisory members need training?
- How can your local government support industry to connect with training resources?
- What local communication materials need to be updated or created?

E. Adopt policies and bylaws, based on consultation outcomes

F. Identify clear timeframes and indicate future intentions (see 4.6)

G. Identify how to monitor your program's success (see 4.7)

H. Identify opportunities to demonstrate leadership

- Local government corporate policies and tenders (see 4.8)

5

Launch and administer the BC Energy Step Code as defined for your community.

4.2 Consultation: Who to Engage and Why

Engaging with the appropriate stakeholders while defining your strategy will shape an approach that is suitable to your local building culture. The level of engagement needed will vary by community and by the type and extent of the proposed new policy, program, or bylaw.

Conducting meaningful engagement with the stakeholders identified not only helps you develop a suitable approach, it helps raise awareness and prepare industry for changes that will be coming in your community and across the province.

An overview of important stakeholders, and their role in strategy development and implementation includes:

- **Staff:** Planning, development, and building compliance staff will help define the strategy. Staff can identify potential alignments or conflicts with existing policies, processes, and bylaws, and identify preferred policy tools. Staff can also identify opportunities for communicating about the *BC Energy Step Code* with the community – through front-desk inquiries, at pre-application meetings, during building permit application, and others.
- **Elected officials and approval bodies:** Elected officials need to understand the *BC Energy Step Code*'s purpose and objectives, be briefed on the outcomes of the consultation process, provide support for the program, and communicate the community's approach and priorities with respect to energy efficiency and the *BC Energy Step Code*. Approval bodies, including design review panels and planning commissions, will need to understand the purpose and objectives, and how increasing energy efficiency may change the form and design of new buildings.

- **Industry:** Representatives from the appropriate building sector (Part 3, Part 9, or both – including designers, builders, energy professionals, trades, and suppliers) will be key participants in identifying the types of policy tools and incentives that are appropriate for the steps being proposed, and identifying potential conflicts with existing policies, processes, and bylaws that need to be addressed. As a best practice, local governments may also consider using forums to facilitate connections among Energy Advisors, builders, designers, construction companies, and suppliers.
- **Neighbouring local governments:** Many industry professionals and trades work across several municipalities, so an important aspect of understanding how available industry is to deliver services in your community is knowing what demand there may be for these services in the region. Neighbouring communities can provide information on type and scale of programs being put in place, and may be interested in aligning programs to enhance regional consistency.
- **Public:** Public engagement helps share messages, gauge support for new objectives, and gather input during strategy development. The public should be introduced to alternative building designs that may appear more frequently, and the benefits of energy-efficient buildings.

Ideas and Resources for Engaging Stakeholders

- The Energy Step Code Council is pleased to make a Microsoft PowerPoint™ presentation available, upon request, to local government staff and elected officials. The presentation is a primer on the standard, explaining how it came to be, how it works, and how local governments are already requiring or incentivizing high-performance buildings. Request a copy of this presentation to use in your community through the "contact" section of energystepcode.ca.
- Host an "all parties" forum to bring together your building officials and planners, designers, Energy Advisors, builders, trades, and suppliers to ensure that everyone that will deal with proposed new *BC Energy Step Code* provisions is on the same page and has the same interpretation of the new requirements.
- Collaborate with local networks, industry associations, and schools to distribute primers and notices about workshops.
- Have building officials attending site visits alert the builder of the upcoming changes, providing handout materials and other communication materials.
- Create information boards or notices to post at City Hall, and at local building centres, plumbing suppliers, and other areas that interested parties may convene or frequent.

4.3 Provincial Policy: Timelines and Grace Periods

The *Provincial Policy* provides guidance for the successful implementation of the *BC Energy Step Code*, based on input from the multi-stakeholder members of Energy Step Code Council. The following summarizes key guidelines from the *Provincial Policy* with respect to notifying the ESCC of your plans, providing sufficient time to industry to prepare for new requirements, and providing appropriate grace periods for applications in place prior to new requirements coming into force.

Notifying the Energy Step Code Council

It is important to **notify the Energy Step Code Council through the Building and Safety Standards Branch** at two (2) key points in your process:

1. When you plan to begin consultation with industry on your proposed approach.
2. When you have established or ratified a bylaw, policy, or program that references the *BC Energy Step Code*.

To notify the ESCC of your intentions, complete the notification form available through the Building and Safety Standards Branch, or by visiting energystepcode.ca. Keeping the ESCC informed ensures you have access to the most recent information and resources available, and it allows the ESCC to track and monitor the *BC Energy Step Code* implementation province-wide.

Minimum Timelines for Requiring the BC Energy Step Code

It is also important to **provide industry and local government staff** (planning department and building officials) **with sufficient time to prepare for change**. The *Provincial Policy* establishes minimum timelines for implementing new requirements, beginning when your local government gives notice to the Energy Step Code Council that you are initiating consultation with industry on a proposed approach, and ending at the time the new requirement comes into force.

These timelines are summarized as follows:

- **Lower Steps:** New or expanded requirements for Lower Steps may be enforced no sooner than six months after notification.
- **Upper Steps:** New or expanded requirements for Upper Steps may be enforced no sooner than one year after notification.
- **Transitioning existing programs** implementing equivalent steps:¹ Communities may transfer existing programs to *BC Energy Step Code* equivalents without delay. Expanding the application of an existing program requires three months notice.

Local governments may adjust these timelines in consultation with local industry and may obtain guidance from the Energy Step Code Council. If a local government chooses to adopt a higher step than was put out during consultation, or plans to change an existing program by broadening the scope, increasing step level, or changing the approach, then the minimum notification timeline should be reset. Requirements may not come into force until December 15, 2017 – though local governments may adopt bylaws in advance of this date.

Grace Period for In-Stream Applicants

At the time a local government enacts the *BC Energy Step Code*, applicants that have previously initiated an application for a new building(s) – rezoning, development permit, development variance permit, or building permit – with detailed design drawings, are considered “in-stream” and should be permitted to build to the energy standards in place at the time of application, as long as they have submitted an application for a full building permit application within one year.

Planners will need to incorporate the new *BC Energy Step Code* provisions into discussions as early as possible when discussing complex applications that are not ready for development application submittal prior to enforcement of the *BC Energy Step Code*.

1. After December 15, 2017, existing programs with technical building requirements in bylaw will no longer be enforceable and need to be redefined for equivalence to the *BC Energy Step Code*. Communities that are transferring existing energy-efficiency policies or programs to their *BC Energy Step Code* equivalents may do so without delay. See Appendix B for an equivalency table.



“The BC Energy Step Code offers the development industry a more flexible, performance-based rather than prescriptive, approach to meeting the energy-efficiency standards of the BC Building Code. We are moving from having inconsistent standards across BC to a new, coordinated benchmark, aligned with future net-zero provincial requirements. The Urban Development Institute is proud to have been at the table since day one, intends to remain involved and is supportive of the Best Practices Guide.

Anne McMullin, President/CEO,
Urban Development Institute

Photo: Participants providing input to a planning process through an energy charrette in Surrey BC.

The BC Energy Step Code training webinars for building officials are valuable resources (available at energystepcode.ca).

4.4 Changes for Building Officials, Permits, and Inspections

The *BC Energy Step Code* represents a significant change to how buildings demonstrate compliance with energy-efficiency requirements, and local governments administering and enforcing the *BC Energy Step Code* may need to establish new procedures for determining compliance. Some local governments may already be incorporating these changes in order to accommodate performance-based compliance under the base *BC Building Code*. Where this approach is new, new procedures may be needed for accepting energy models and for airtightness testing, as described below.

Under the *BC Energy Step Code*, each building will require an energy model, and the model must demonstrate the building is designed to meet the requirements set out for the specified step (see Appendix A for the list of requirements). New procedures may include evaluating whether the documentation is complete and meets the standards for energy models that are set out in the regulation.



For Part 9 buildings, energy models will typically be prepared by Registered Energy Advisors retained by the builder or designer. Part 9 energy models will be prepared using software, such as HOT2000, which generates results according to the EnerGuide Rating System.



For Part 3 buildings, energy modelling is within the scope of Letters of Assurance, and the role of the building official does not change.

Inspections will no longer need to verify prescriptive requirements (for example, there are no minimum or maximum requirements for insulation, door/window/skylight U-values, or equipment efficiency in the *BC Energy Step Code*). Instead, the requirements for components are dictated by the energy model submitted with the permit application.

To prepare for these changes, local governments may wish to:

- **Have building officials complete** the *BC Energy Step Code* training webinars for building officials (available at energystepcode.ca).
- **Review** and update compliance procedures to accommodate the change in approach.
- **Review** best practices in energy modelling (see resources noted in section 5).
- **Develop** a policy that clearly defines the "due diligence" requirements for your local government.
- **Stipulate requirements** related to documentation of final compliance (other than those required for Part 3 buildings in the *BC Building Code*) to verify the energy model details are the same as the actual construction of the building.
- **Obtain guidance** from legal counsel on appropriate procedures for accepting assurances.
- **Define procedures** for completing airtightness testing.
- **Establish** the level of interaction needed with the Energy Advisor on site for the inspection.
- **Identify** procedures for what happens if a building fails to meet the airtightness requirements.
- **For Part 9 buildings**, check that air and vapour barrier products and materials conform to a standard listed in the *BC Building Code*.
- **Check** that the building has a ducted supply ventilation system (as the *BC Energy Step Code* does not permit the use of a passive ventilation system).

Alternative Solutions

Building to the *BC Energy Step Code* is likely to drive an increase in the use of alternative solutions. As builders are required to increase the airtightness of the building, and improve the building envelope, equipment, and systems, this may require design approaches, materials, and equipment that are not currently listed as acceptable solutions in the *BC Building Code*. The *BC Building Code* does allow for alternative solutions to be proposed to the Authority Having Jurisdiction, but processing these requests can be time consuming, complex, and expensive. Local governments should anticipate this increase in alternative solution requests and have a process in place to process them efficiently. This will be more of an issue in Upper Steps where building performance is being pushed well beyond conventional practices.

4.5 Harmonizing with Existing Policies and Priorities

Local governments are well accustomed to balancing across multiple objectives. Two examples of relevance to successfully implementing the *BC Energy Step Code* are discussed below: strategies to maintain affordability and considerations for district energy and/or alternative energy policies.

A Strategy for Energy-Efficient and Affordable Housing

During the development of the *BC Energy Step Code*, the Energy Step Code Council placed much care and attention on identifying an incremental series of energy-efficient building standards that may be suitable in different regions or circumstances. Some of these standards are achievable today in a cost-effective manner, while others require new capacity, training, or higher initial costs. Because each community in BC faces different contexts with respect to capacity, cost of building, affordability, housing supply, and land market conditions, each local government will need to consider which tools and approaches are most suitable in their communities. This is why there are multiple steps, so that each local

government can introduce energy efficiency in a step-wise manner that works for the community.

Consider the following tips to help minimize impacts on affordability as you develop your *BC Energy Step Code* strategy:

- **Familiarize** yourself with the incremental costs of achieving the steps for different building types and climate zones by reviewing the results of BC Housing's costing study (discussed in section 2.6).
- **Review** BC Housing's *An Illustrated Guide on Cost-Effective Tips and Optimization for High-Performance Homes and Buildings* (available fall of 2017 at energystepcode.ca).
- **Check** energystepcode.ca for links to information about provincial or utility incentives and financial mechanisms that may be available to industry.
- **Review** the tools in section 3.2 and consult with local industry and real estate to determine a suitable level of incentive for your community.
- **Support** industry learning through builder forums, linking to listings of energy modellers and airtightness testers, promoting training events, etc.
- **Ensure** design guidelines align with cost-effective and energy-efficient building forms.
- **Exclude** additional wall thickness related to increased insulation from floor space ratio (FSR) calculations.
- **Start with Lower Steps** because these can use conventional materials and approaches.
- **Consider Lower Steps** for very small single-family homes and coach houses, since the Upper Steps are more difficult to attain for very small buildings.
- **Ensure** that new regulations and permitting processes do not negatively impact approval timelines.
- **Provide a clear direction** for the future so industry can prepare for upcoming changes to local building requirements.

More energy-efficient homes are likely to experience reduced energy costs and lower maintenance expenses, which can help improve affordability for home occupants.

District Energy, On-Site Renewable Energy, and BC Energy Step Code – Friends or Foes?

Encouraging renewable district energy systems and on-site renewable energy generation are two actions that BC local governments have pursued in support of their climate action goals. Some communities have developed renewable district energy systems that require certain adjacent buildings to connect to the system, while other communities have encouraged or required a certain amount of on-site renewable energy generation be installed. Meeting these requirements can involve increased capital investment beyond that required to meet the base *BC Building Code*.

The *BC Energy Step Code* focuses on making buildings need less energy, regardless of the source of energy, which can also involve increased capital investment (especially for the Upper Steps). Since highly energy-efficient buildings have much lower heat demand, it may be challenging to maintain a financially viable renewable district energy system that serves very efficient buildings. Moreover, requiring investments in both the energy supply and demand may involve higher costs.

Local governments need to consider these policies in tandem. Where a building is required to connect to a renewable district energy system, the local government should carefully review the implications before setting *BC Energy Step Code* requirements (through research and discussion with the district energy provider), in particular in relation to meeting Upper Steps. Looking forward, it is important that new renewable district energy systems incorporate the shift towards net-zero energy ready buildings as the minimum requirement in the *BC Building Code* by 2032 into financial projections and feasibility studies.

For some building designs, Upper Steps of the *BC Energy Step Code* requirements may be challenging to meet (e.g., a south-facing building designed with a high ratio of glass). In these cases, developers may offer to invest in on-site renewable



“By incentivizing and requiring energy-efficient new construction, the BC Energy Step Code will help drive market demand for a range of high-performance building products including mineral-fibre insulation. The regulation stands to stimulate this manufacturing sector, allowing BC companies to meet the growing demand with a wider range of more competitive products and assemblies. This will attract investment, spur innovation, and create new opportunities and skilled jobs in Canada's clean-growth economy.”

Jay Nordenstrom, Executive Director,
NAIMA Canada

Photo: Bullitt Center, a high-rise commercial concrete building in Seattle, Washington. Photo by Nic Lehoux.

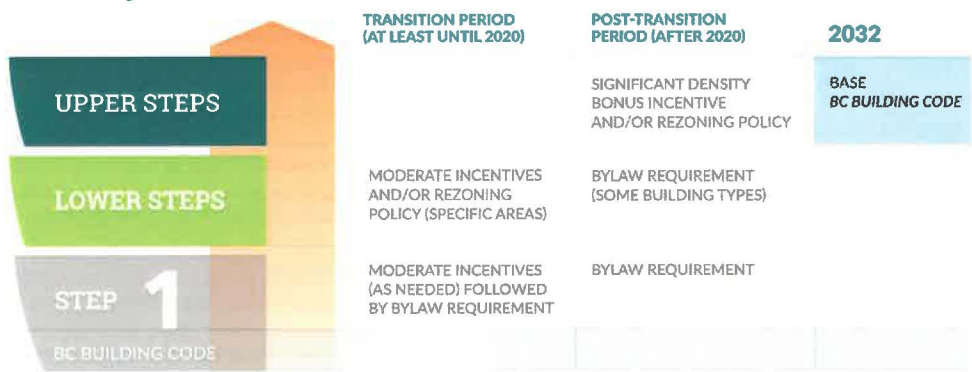
energy as an alternative to reaching higher energy efficiency standards. It is important for local governments to develop policies that are flexible to accommodate these types of cases.

4.6 A Clear Direction for the Future

Each community will need time to develop and transform their local energy-efficient building market. For many communities, adapting to performance-based compliance will call for a significant outlay of effort, and will consume the first few years of implementing the *BC Energy Step Code*. For communities with established energy-efficiency policies, transitions may be much easier.

Depending on your community's objectives, there may be a desire to reach for Upper Steps over the longer term in advance of future *BC Building Code* updates. To sufficiently prepare industry and the community, it will be beneficial to indicate a schedule of increased *BC Energy Step Code* performance that your community may require over the coming years. It will also be helpful if a few early adopters are provided significant incentives to achieve Upper Steps in specific locations – demonstrating what is feasible in the community. Figure 4 outlines two example strategies to increase energy requirements over time (assuming a 3-year transition period).

Community 1:



Community 2:

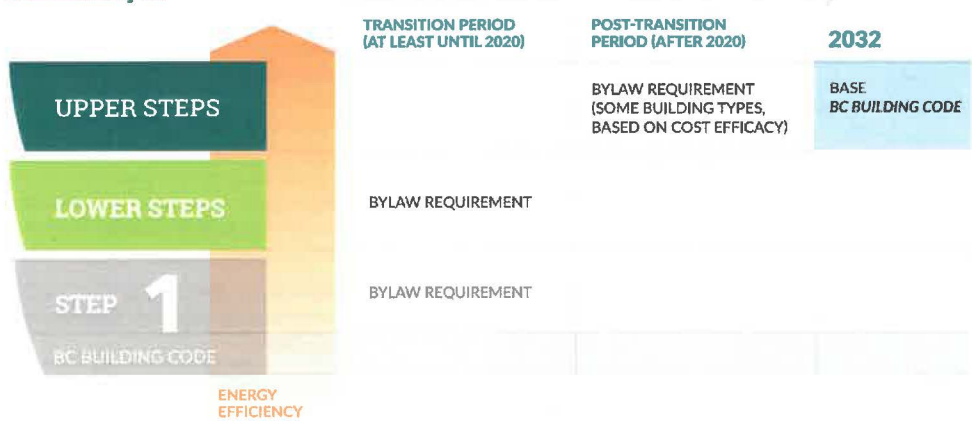


Figure 4: Two example paths for adopting increasing steps over time

4.7 Monitoring, Evaluating, and Adjusting

Once you have developed your strategy, it will be important to monitor progress to see if you are reaching your community's objectives with respect to the **BC Energy Step Code**. An annual assessment of progress will provide you with critical information that may lead you to either make adjustments to your strategy, or to keep a steady course. Monitoring and evaluation will also indicate the appropriate time to increase performance requirements.

Here are some factors to consider tracking to support your program evaluation:

- Industry and local governments find the steps clear.
- Steps are reported to enhance consistency in development industry.
- Anticipated costs (including time) and benefits are realized.
- There is good awareness and education across industry.
- Continuous learning is happening in industry and at the local government.
- Processing times have not slowed down.
- The number of development applications and building permit values have not gone down.
- Economic opportunities are realized.

As numerous staff will be responsible for implementing various elements of the strategy, defining a clear monitoring and evaluation process during the strategy, including required data needs, will help ensure evaluations are based on accurate quantitative and qualitative data, and that this information is regularly collected and tracked.

To support a smooth transition toward net-zero energy ready buildings by 2032 across the province, the Energy Step Code Council will also be tracking key information about the uptake of the **BC Energy Step Code** in all communities. Be sure to provide the ESCC with monitoring and evaluation results from your community, as well as relay any pertinent case studies and lessons, to support the province-wide transition, by responding to ESCC surveys and requests for information (likely to be conducted annually).

4.8 Take Leadership in Civic Facilities

The Energy Step Code Council is encouraging local governments to consider specifying the Upper Steps as a tender requirement for new public amenities, such as a community centre or recreation complex.

In the past decade, a number of governments across Canada (local, provincial, and federal) have helped increase industry familiarity with high-performance building techniques and products by requiring high-performance building standards, through green-building rating and certification systems, as a condition of public tender. This is a proven way of using public sector leadership to help prepare the local market for broader uptake. The Province and BC Housing are taking steps towards leadership in new public sector buildings and affordable housing projects. Local governments can also work with provincial and federal agencies to encourage new institutional buildings to be built to the Upper Steps, further supporting market transformation toward high-performance buildings in the community.

“ The BC Energy Step Code gives local governments a tool to consistently and clearly indicate what they want to accomplish on efficiency, and the authority to do it. The prescriptive approach in the building code is open to interpretation, and it doesn't really achieve the goal of what it is trying to do. The performance approach allows builders to be flexible and allows the builder and the designer to look for solutions that best fit the situation.

Mark Bernhardt, a building contractor in Victoria, BC

Photo: Spruce Grove Passive House in Whistler BC, photo by Kristen McGaughey Photography (Part 9, Step 5).

5

A Primer on the Technical Requirements

5.1 Whole-Building Energy Modelling

To meet the requirements of a given step of the *BC Energy Step Code*, a whole-building energy model of the proposed building design must be completed prior to construction to demonstrate to local government building officials that the building's modelled design meets or exceeds a set of defined requirements. Energy models are usually prepared by trained energy modellers, who work in collaboration with builders and/or designers to demonstrate how the energy-efficiency requirements will be met. This is already common practice for high-efficiency buildings in BC, and is an optional compliance path for meeting the energy-efficiency requirements in the base *BC Building Code*.

After construction, the responsible party must prepare documentation that the building meets the specifications set out in the energy model. The responsible party varies depending on the building type:

Part 9 buildings: the owner is responsible for preparing the appropriate documentation. In practice, this responsibility is likely to be delegated to the designer, builder, or Energy Advisor.

Part 3 buildings: the qualified professional (architect or engineer) is responsible for preparing letters of assurance.¹

To improve consistency, transparency, and comparability, the *BC Energy Step Code* uses the same metrics for each step, with progressively increasing performance requirements at each step (see Appendix A for a summary of these requirements). The metrics represent modelled energy use in relation to the building envelope and the equipment and systems.

1. Letters of assurance, introduced in the 1992 *BC Building Code*, are uniform, mandatory documents intended to clearly identify the responsibilities of key professionals in a building project.

What is an Energy Model?

An energy model calculates how much energy a proposed building is expected to use. The energy consumption can relate to space heating, hot water heating, ventilation, lighting, appliances, and plug loads. The modelling is done by a trained energy modeller who understands modelling software, construction details, and code requirements. The energy model accounts for the size and geometry of the building, the climate location, the effective insulation values of assemblies such as walls, ceilings, and windows, and the mechanical systems that heat and ventilate the house. Standard operating conditions are assumed for the quantity and living habits of the occupants. The *BC Building Code* identifies acceptable modelling and airtightness tools and procedures (for acceptable procedures for Part 3 buildings refer to Part 8 of the National Energy Code of Canada (NECB) and City of Vancouver Energy Modelling Guidelines).¹ *Professional Practice Guidelines – Whole Building Energy Modelling Services* from Engineers and Geoscientists BC and AIBC will provide guidance for using energy models to comply with regulations, incentive or rating programs, and as a design tool in developing higher performing buildings.²

Who Prepares Energy Models?



For Part 9 buildings, an Energy Advisor can provide both energy modelling and airtightness testing - the two compliance services needed for Part 9 buildings. Registered Energy Advisors are third-party consultants who have been trained and licensed through their organization and Natural Resources Canada, and there are numerous registered in BC.³ Since the availability of Registered Energy Advisors varies by region, it is important to ensure Part 9 builders have access to a Registered Energy Advisor when considering adopting the *BC Energy Step Code* program in their communities.



For Part 3 buildings, an architect, engineer, or trained energy modeller can provide energy modelling needed to achieve the steps, and numerous architectural and engineering consulting firms currently provide these services throughout BC. Many new commercial buildings currently use this approach and are already capable of achieving the Lower Steps.

1. <http://vancouver.ca/files/cov/energy-modelling-guidelines-v1.0.pdf>

2. The guidelines are expected by the end of 2017 and will be available at www.apeg.bc.ca and www.aibc.ca.

3. To obtain a list of Registered Energy Advisors, visit <https://www.nrcan.gc.ca/energy/efficiency/housing/service-providers/15807>. A Training Gap Analysis and Industry Capacity Assessment was conducted for the ESCC in 2017, and this estimated sufficient capacity to serve 60% of new Part 9 building in 2018 and 100% by 2020, with the roll-out of the ESCC training strategy.

5.2 The Building Envelope

The “building envelope” refers to the physical barrier separating a building’s heated or cooled interior from the outside elements. It includes the walls, roof, floors, windows, skylights, and doors (see Figure 5). If the temperature inside a building is different than the outside, heat will naturally move through the envelope. If a lot of outdoor air seeps into the building, heating or cooling systems may kick in to bring the air to room temperature (especially if it is much colder or warmer outside compared to inside), and this can use a lot of energy. A high-quality building envelope manages the air that moves between indoors and outdoors, and reduces the requirements on a building’s mechanical systems.

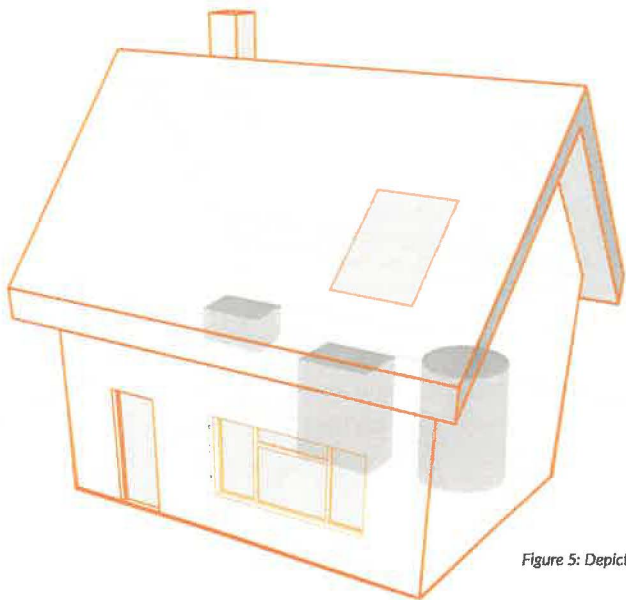


Figure 5: Depiction of the building envelope

The key elements of a high-performance building envelope include:

- **Insulation** that helps to slow the movement of energy through the walls and keeps the building at a comfortable temperature – warm during cold months and cool during warm months.
- **Windows, doors, and skylights** that are well positioned to make optimal use of the sunlight and reduce heat loss on north-facing sides. They are also highly insulated to reduce flow of heat/energy through the glass and frames.
- **Minimized thermal bridges** using special framing techniques, or by installing a continuous layer of insulation around the outside of the whole building. Slab extensions (e.g., for balconies) should be minimized, or use support materials that vastly reduce thermal bridges.
- **Airtightness** that maintains a continuous air barrier around the building, where possible, then seals up any necessary seams – such as those around windows, doors, balconies, and other protrusions.

More information is available in BC Housing’s *An Illustrated Guide to Achieving Airtight Buildings*, which will be made available on energystepcode.ca upon its publication in the fall of 2017.

What is a Thermal Bridge?

A thermal bridge is a spot in the building envelope that transfers heat more quickly than the rest of the building envelope – for example, a metal-framed wall has a thermal bridge at each stud because metal transfers more heat than the insulation between the studs. With appropriate training and materials, builders can learn to construct building envelopes that reduce or eliminate these bridges, reducing energy consumption. The image in Figure 6 shows the results of “thermal imaging” – a tool for seeing where heat is being transferred through the building envelope. On the top, the image shows thermal bridges at every stud, as well as leaking around windows and through the roof. On the bottom, the addition of an air barrier and continuous insulation has reduced thermal bridges, and improved sealing around windows and doors.

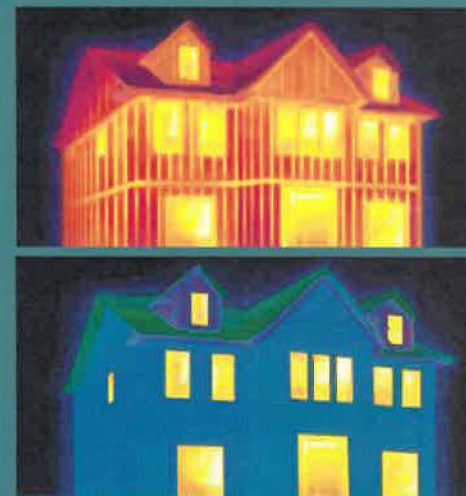


Figure 6: Example thermal images of a building demonstrating thermal bridges. Areas that are red and yellow show a lot of heat escaping through the building envelope. Blue and green areas show much less heat is escaping. Photo credit: Dow Chemical Company.

5.3 The Equipment and Systems

An energy-efficient building will minimize the energy needed to run all of the heating, cooling, ventilation, and hot water equipment and systems. By focusing first on a high-quality envelope, the energy needed for heating and cooling is already greatly reduced and will require less energy from equipment and systems. That said, there are still significant opportunities to reduce energy use with efficient equipment (see Figure 7 for a depiction of the equipment and systems in a building).

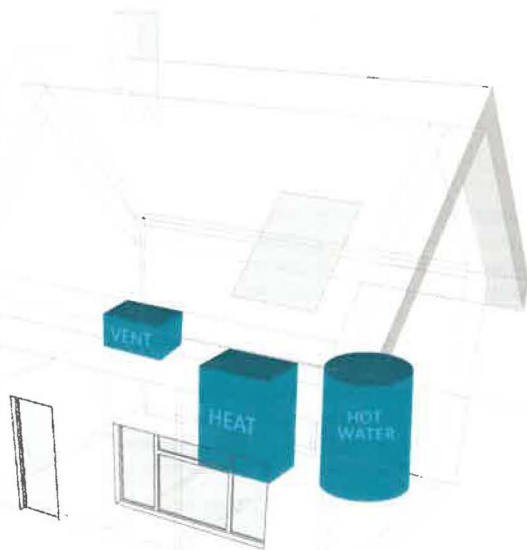


Figure 7: Depiction of the equipment and systems in a building

The key elements of high-performance equipment and systems include:

- **Heating systems** in efficient buildings vary greatly from high-efficiency furnaces and boilers to heat pumps or electric baseboard heating (where the building envelope is very efficient and only a small amount of baseboard heat is needed). An important consideration when selecting a heating system is to ensure it is sized to match the needs of the building.
- **Cooling systems** play a smaller role in energy use in BC, though they may become more important over time as summer peak temperatures increase due to global climate change. While they currently have limited use in homes, they are typically quite efficient in commercial applications. In energy-efficient buildings, cooling can be provided through high-efficiency air conditioning systems, or through heat pumps. Cooling needs are reduced with efficient building envelopes, together with windows that cut solar gain.
- **Ventilation systems** are important for providing fresh air to a building. To be most energy-efficient, these systems will capture and transfer heat from the air exiting the building to the new replacement air entering the building through the use of a Heat or Energy Recovery Ventilator (HRV or ERV). This is also a chance to filter the new air to reduce pollutants.
- **Hot water systems** in efficient buildings vary from high-efficiency tanks and boilers, to on-demand systems that heat water only as needed, to heat-pump systems. Efficient systems may also capture heat from the drainwater and transfer it to preheat the hot water.

Heat-recovery ventilators (HRV)/Energy-recovery ventilators (ERV): These systems harvest the heat from stale outgoing air and use it to preheat incoming air, supplying fresh outside air to the space while reducing the amount of energy needed to bring it up to room temperature. HRVs and ERVs help buildings improve energy efficiency, and can be helpful in achieving the Upper Steps. ERVs can also help control indoor humidity levels.



Photo: Spruce Grove house in Whistler BC, by Kristen McGaughey Photography.

5.4 Airtightness Testing

Airtight construction minimizes air leaks through holes, cracks, or gaps in the building envelope. In addition to reducing the loss of heated air, it also reduces drafts, making the building much more comfortable. Airtight construction involves maintaining a continuous air barrier around the building where possible, then sealing up any necessary seams – such as those around windows, doors, balconies, and other protrusions. **This means paying attention to detail during the construction process to reduce or eliminate holes or gaps in the building's air barrier.** This is already required in the base *BC Building Code*, but there is no requirement to test it.

In the *BC Energy Step Code*, airtightness testing is required for all steps and all building types before occupancy. Part 9 buildings must meet escalating levels of airtightness for Steps 2 to 5. In homes, a “blower door test” is used to evaluate airtightness (see text box to the right for a depiction of an airtightness test).

Although airtightness testing has been used in homes for many years (including as a requirement for Federal and Provincial incentive programs in the past), the testing of airtightness in large commercial buildings is a newer practice in BC.¹ The *BC Energy Step Code* introduces required airtightness testing and reporting using specific methods for all Part 3 buildings, but there are no required levels of airtightness that must be met to achieve the steps. Note that the building energy model must account for the result of the airtightness tests for Part 3 buildings in Steps 2 to 4.

1. Although newer to BC, all commercial and residential buildings over three stories have required whole-building airtightness testing in Washington State and Seattle building codes since 2009.

What is a Blower Door Test?

A **blower door test** is a standardized test to measure how tightly a building is sealed against air leakage and heat loss. To perform the test, a technician closes all doors and vents and temporarily installs an air barrier in a doorway that uses an integrated fan (see Figure 8). The fan changes the pressure inside the building, allowing the tech to measure how quickly air is entering or leaving the building via cracks and leaks. The test results show how much air passes through the building envelope, when the building is at a specified pressure. While a blower door test is required pre-occupancy, it may also be helpful at a midpoint inspection to ensure any leaks in the envelope are repaired before drywall is in place.



Figure 8: Blower door test in action

5.5 Metrics used in the BC Energy Step Code

The following metrics are used in the **BC Energy Step Code** to assess which step a building achieves. The Building Envelope Metrics and the Equipment and Systems Metrics are demonstrated through a whole-building energy model of the design, while the Airtightness Metric is demonstrated through an on-site test of the building before occupancy. See **Appendix A** for a table of the required values by step for different climate zones and different building types.

Building envelope metrics

PART 9

Thermal Energy Demand Intensity (TEDI): The amount of annual heating energy needed to maintain a stable interior temperature, taking into account heat loss through the envelope and passive gains (i.e., the amount of heat gained from solar energy passing through the envelope or from activities in the home like cooking, lights, and body heat). It is calculated per unit of area of the conditioned space over the course of a year, and expressed in kWh/(m²-year).

Peak Thermal Load (PTL): The maximum amount of energy needed to heat a building on the coldest day of the year, expressed in W/m² of conditioned space. Energy modellers also refer to this as "Design Heat Loss."

Equipment and systems metrics

Percent Lower than EnerGuide Reference House: An EnerGuide reference house establishes how much energy a home would use if it was built to base building code standards. This metric identifies how much less energy - stated as a percentage - the new home will require compared to the reference house.

Mechanical Energy Use Intensity: The modelled amount of energy used by space heating and cooling, ventilation, and domestic hot water systems, per unit of area, over the course of a year, expressed in kWh/(m²-year).

PART 3

Total Energy Use Intensity: The modelled amount of total energy used by a building, per unit of area, over the course of a year, expressed in kWh/(m²-year). It includes plug loads - appliances, lighting, entertainment systems, and so on - and process loads, namely heating, cooling, fans, and other mechanical systems. Some exceptions for unique situations are permitted (for example, electric vehicle charging), as outlined in the modelling guidelines referenced in the **BC Energy Step Code** regulation. This metric may be challenging to achieve for specific buildings that have high process loads (for example, restaurants, hospitals, or large computer server farms).

Airtightness metrics

Air Changes per Hour at a 50 Pa Pressure Differential (ACH₅₀): The number of times the full volume of air in the building exchanges in an hour when a building is at a specified pressure, different than the outdoor air pressure, as measured by a "blower door test". This measures the airtightness of the building (or how much air leaks through the building envelope).

Air Leakage Rate: A measure of the rate that air leaks through the building envelope per unit area of the building envelope, as recorded in L/(s-m²) at a 75 Pa pressure differential.



6

Conclusion

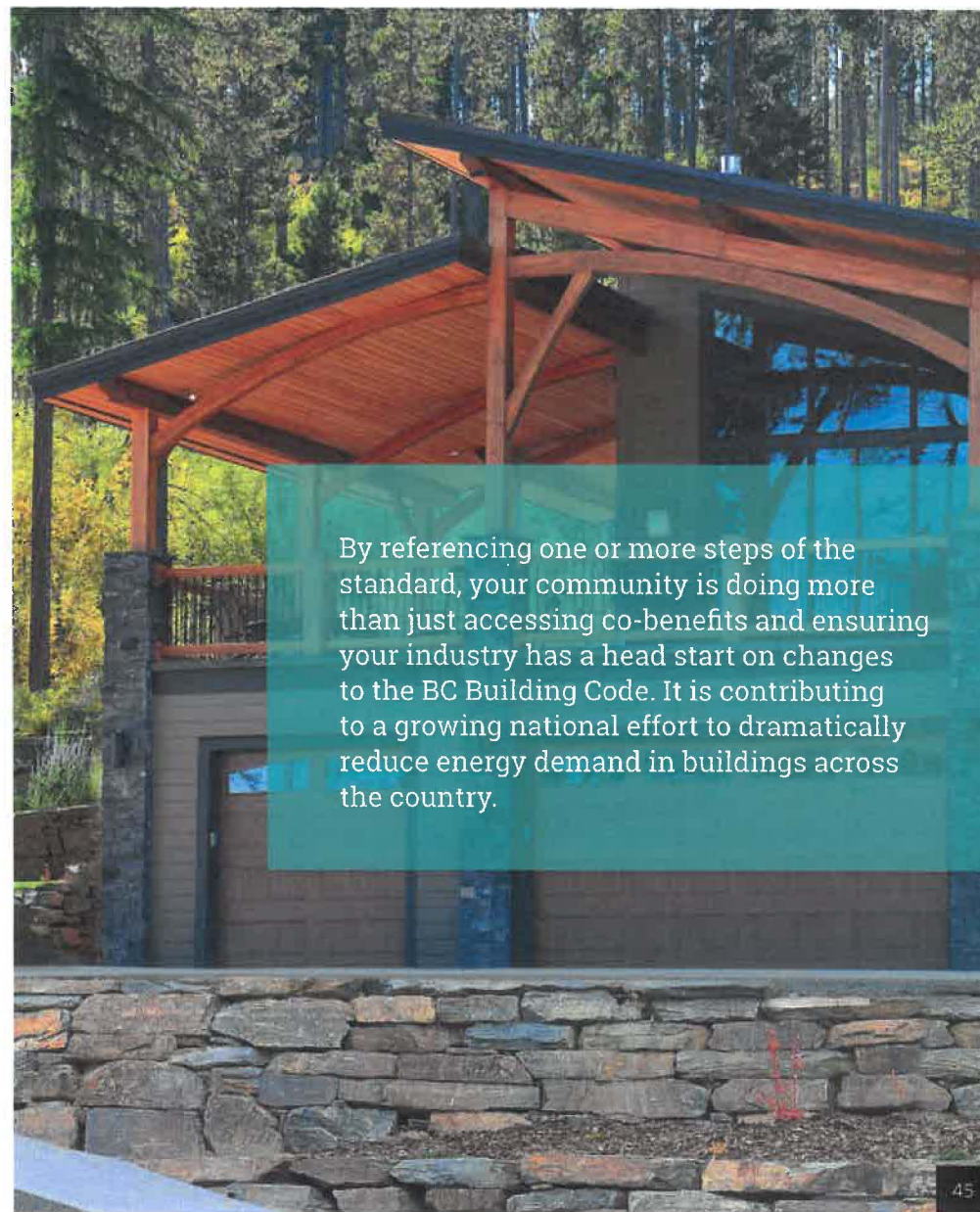
The **BC Energy Step Code** emerged from a desire to provide a consistent set of higher-efficiency standards for the building industry, while offering local governments a simple and effective set of standards to support their efforts to meet targets for energy efficiency and greenhouse gas emissions. The Energy Step Code Council is keenly interested in ensuring the **BC Energy Step Code** is adopted in a coordinated and thoughtful manner to ensure these benefits come to fruition for all parties. For that reason, it is important that local governments follow the guidance offered in this document.

Governments that do adopt one or more steps of the **BC Energy Step Code** will be getting a head start on coming revisions to the base **BC Building Code**. Over the coming years, the Province of British Columbia has committed to gradually align the base **BC Building Code** with the **BC Energy Step Code** standard. Eventually, the Lower Steps will be required practice for all construction – across the board – followed by the Upper Steps. By 2032 all new buildings will be net-zero energy ready as the minimum code.

The Energy Step Code Council is also encouraging local government leadership by requiring the Upper Steps for any public-building project that may be on the horizon, such as a community centre or public-safety complex. These buildings will serve as high-profile case studies – building local capacity while demonstrating to the market what can be accomplished.

By referencing one or more steps of the standard, your community is doing more than just accessing co-benefits and ensuring your industry has a head start on changes to the **BC Building Code**. It is contributing to a growing national effort to dramatically reduce energy demand in buildings across the country.

Photo: Energy efficient home in Kimberley BC, that participated in the City's program. Photo by Chris Pullen, Cranbrook Photo (Part 9, at least Step 2).



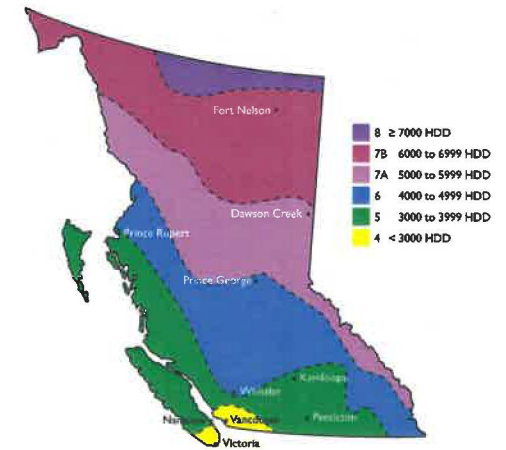
By referencing one or more steps of the standard, your community is doing more than just accessing co-benefits and ensuring your industry has a head start on changes to the BC Building Code. It is contributing to a growing national effort to dramatically reduce energy demand in buildings across the country.

Appendix A: Step Code Metrics for Energy Efficiency

Table 9.36.6.3.A. Requirements for Buildings Located Where the Degree-Days Below 18°C Value is Less than 3000 (Climate Zone 4)¹

Forming Part of Sentence 9.36.6.3.(1)

STEP	AIRTIGHTNESS (AIR CHANGES PER HOUR AT 50 PA PRESSURE DIFFERENTIAL)	PERFORMANCE REQUIREMENT OF BUILDING EQUIPMENT AND SYSTEMS	PERFORMANCE REQUIREMENT OF BUILDING ENVELOPE
1	N/A	EnerGuide Rating % lower than EnerGuide Reference House: not less than 0% lower energy consumption or Conform to Subsection 9.36.5.	
2	≤ 3.0	EnerGuide Rating % lower than EnerGuide Reference House: not less than 10% lower energy consumption or mechanical energy use intensity $\leq 60 \text{ kWh/m}^2\text{.year}$	Thermal energy demand intensity $\leq 45 \text{ kWh/m}^2\text{.year}$ or Peak thermal load $\leq 35 \text{ W/m}^2$
3	≤ 2.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 20% lower energy consumption or mechanical energy use intensity $\leq 45 \text{ kWh/m}^2\text{.year}$	Thermal energy demand intensity $\leq 40 \text{ kWh/m}^2\text{.year}$ or Peak thermal load $\leq 30 \text{ W/m}^2$
4	≤ 1.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 40% lower energy consumption or mechanical energy use intensity $\leq 35 \text{ kWh/m}^2\text{.year}$	Thermal energy demand intensity $\leq 25 \text{ kWh/m}^2\text{.year}$ or Peak thermal load $\leq 25 \text{ W/m}^2$
5	≤ 1.0	Mechanical energy use intensity $\leq 25 \text{ kWh/m}^2\text{.year}$	Thermal energy demand intensity $\leq 15 \text{ kWh/m}^2\text{.year}$ or Peak thermal load $\leq 10 \text{ W/m}^2$



Map of BC Climate Zones, where zones are defined by the number of Heating Degree Days (HDD) in one year. The BC Energy Step Code for Large and Complex Buildings (Part 3) is only available in Climate Zone 4.

1. See Sentence 1.1.3.1.(1) of Division 2 and Table C-2 in Appendix C of the Regulation of the Minister of Natural Gas Development and Minister Responsible for Housing and Deputy Premier, Building Act, Ministerial Order No. M158, dated April 6, 2017 (<http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/revisions-and-mo/mo158-bcreg138-2017-bcbcreg.pdf>)

Table 9.36.6.3.B. Requirements for Buildings Located Where the Degree-Days Below 18°C Value is 3000 to 3999 (Climate Zone 5)¹

Forming Part of Sentence 9.36.6.3.(1)

STEP	AIRTIGHTNESS (AIR CHANGES PER HOUR AT 50 PA PRESSURE DIFFERENTIAL)	PERFORMANCE REQUIREMENT OF BUILDING EQUIPMENT AND SYSTEMS	PERFORMANCE REQUIREMENT OF BUILDING ENVELOPE
1	N/A	EnerGuide Rating % lower than EnerGuide Reference House: not less than 0% lower energy consumption or Conform to Subsection 9.36.5.	
2	≤ 3.0	EnerGuide Rating % lower than EnerGuide Reference House: not less than 10% lower energy consumption or mechanical energy use intensity ≤ 90 kWh/m ² .year	Thermal energy demand intensity ≤ 60 kWh/m ² .year or Peak thermal load ≤ 55 W/m ²
3	≤ 2.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 20% lower energy consumption or mechanical energy use intensity ≤ 75 kWh/m ² .year	Thermal energy demand intensity ≤ 60 kWh/m ² .year or Peak thermal load ≤ 45 W/m ²
4	≤ 1.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 40% lower energy consumption or mechanical energy use intensity ≤ 45 kWh/m ² .year	Thermal energy demand intensity ≤ 40 kWh/m ² .year or Peak thermal load ≤ 40 W/m ²
5	≤ 1.0	Mechanical energy use intensity ≤ 25 kWh/m ² .year	Thermal energy demand intensity ≤ 15 kWh/m ² .year or Peak thermal load ≤ 10 W/m ²

1. See Sentence 1.1.3.1.(1) of Division 2 and Table C-2 in Appendix C of the Regulation of the Minister of Natural Gas Development and Minister Responsible for Housing and Deputy Premier, Building Act, Ministerial Order No. M158, dated April 6, 2017 (<http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/revisions-and-mo/mo158-bcreg138-2017-bcbcreg.pdf>)

Table 9.36.6.3.C Requirements for Buildings Located Where the Degree-Days Below 18°C Value is greater than 3999 (Climate Zone 6, 7a, 7b, and 8)¹

Forming Part of Sentence 9.36.6.3.(1)

STEP	AIRTIGHTNESS (AIR CHANGES PER HOUR AT 50 PA PRESSURE DIFFERENTIAL)	PERFORMANCE REQUIREMENT OF BUILDING EQUIPMENT AND SYSTEMS	PERFORMANCE REQUIREMENT OF BUILDING ENVELOPE
1	N/A	EnerGuide Rating % lower than EnerGuide Reference House: not less than 0% lower energy consumption or Conform to Subsection 9.36.5.	
2	≤ 3.0	EnerGuide Rating % lower than EnerGuide Reference House: not less than 10% lower energy consumption or mechanical energy use intensity ≤ 100 kWh/m ² .year	Thermal energy demand intensity ≤ 70 kWh/m ² .year or Peak thermal load ≤ 55 W/m ²
3	≤ 2.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 20% lower energy consumption or mechanical energy use intensity ≤ 85 kWh/m ² .year	Thermal energy demand intensity ≤ 60 kWh/m ² .year or Peak thermal load ≤ 50 W/m ²
4	≤ 1.5	EnerGuide Rating % lower than EnerGuide Reference House: not less than 40% lower energy consumption or mechanical energy use intensity ≤ 55 kWh/m ² .year	Thermal energy demand intensity ≤ 50 kWh/m ² .year or Peak thermal load ≤ 45 W/m ²
5	≤ 1.0	Mechanical energy use intensity ≤ 25 kWh/m ² .year	Thermal energy demand intensity ≤ 15 kWh/m ² .year or Peak thermal load ≤ 10 W/m ²

1. See Sentence 1.1.3.1.(1) of Division 2 and Table C-2 in Appendix C of the Regulation of the Minister of Natural Gas Development and Minister Responsible for Housing and Deputy Premier, Building Act, Ministerial Order No. M158, dated April 6, 2017 (<http://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/revisions-and-mo/mo158-bcreg138-2017-bcbcreg.pdf>)

Table 10.2.3.3.A. Energy Performance Requirements for Residential Occupancies

Forming Part of Sentences 10.2.3.3.(1) and (2)

STEP	EQUIPMENT AND SYSTEMS – MAXIMUM TOTAL ENERGY USE INTENSITY (KWH/M ² •YEAR)	BUILDING ENVELOPE – MAXIMUM THERMAL ENERGY DEMAND INTENSITY (KWH/M ² •YEAR)
1		Conform to Part 8 of the NECB
2	130	45
3	120	30
4	100	15

Table 10.2.3.3.B. Energy Performance Requirements for Business and Personal Services or Mercantile Occupancies

Forming Part of Sentences 10.2.3.3.(1) and (2)

STEP	EQUIPMENT AND SYSTEMS – MAXIMUM TOTAL ENERGY USE INTENSITY (KWH/M ² •YEAR)	BUILDING ENVELOPE – MAXIMUM THERMAL ENERGY DEMAND INTENSITY (KWH/M ² •YEAR)
1		Conform to Part 8 of the NECB
2	170	30
3	170	20

Appendix B: Relation Between BC Energy Step Code and Other Certification Programs

The following table provides an approximate "equivalency" between certification standards developed by third parties and the *BC Energy Step Code*, where such a comparison is possible. The table may assist with local governments that are transitioning existing programs and bylaws to conform with the changes to the *Building Act*. Compliance or certifications to third-party standards do not guarantee compliance with the *BC Energy Step Code*.

Part 9:

STEP 1	EnerGuide Rating System, Built Green Bronze
STEP 2	Built Green Silver
STEP 3	ENERGY STAR, Built Green Gold and Platinum
STEP 4	R2000
STEP 5	Passive House, Net-Zero Energy Ready

There are several certification programs and rating systems that support greater energy efficiency, but equivalencies to the *BC Energy Step Code* have not been established for every program. Some also address aspects of building design that are beyond the scope of the *BC Energy Step Code*. Programs such as LEED and Built Green take a holistic approach, addressing a broad spectrum of direct and indirect sources of GHG emissions as well as important aspects of sustainability such as water efficiency, ecological impact, and the health and wellness of occupants.

The energy efficiency requirements of the available certification programs and rating systems may align and contribute to the achievement of the *BC Energy Step Code*. For example, the EnerGuide rating system can be the basis for demonstrating compliance to steps 1, 2, 3 and 4 of the *BC Energy Step Code* for Part 9 buildings, as detailed earlier in this document. In turn, the LEED rating system leverages the EnerGuide Rating System to establish a minimum required level of energy performance and award points for greater efficiency; this facilitates the voluntary application of LEED in conjunction with the *BC Energy Step Code*.



“The University of British Columbia developed energy efficiency requirements for campus buildings back in 2006, and introduced performance-based targets in 2013. We’re now in the process of aligning our standards with the BC Energy Step Code. It’s great to be part of a province-wide market transformation, and my team is happy to be in good company with other jurisdictions that are now starting to move up the same high-performance staircase.

*John Madden, Director, Sustainability and Engineering,
University of British Columbia*

*Photo: North Park Passive House condominium development,
Victoria BC, photo by Ryan Hamilton (Part 9, Step 5).*

The background of the slide is a photograph of a row of brick townhouses. The image is dimmed with a teal overlay. A solid yellow rectangle is positioned in the upper right corner. A teal rectangular box is centered on the slide, containing white text.

Visit the BC Energy Step Code web site
(energystepcode.ca) for resources, updates,
training publications, and webinars.

Sections of Zoning Bylaw to be Deleted

Delete section 4C03 in its entirety

4C03 Density Bonus for Energy Performance

(1) Commercial, Industrial, Institutional and Multi-Family Residential Buildings:

Notwithstanding the floor space ratio established in a commercial, industrial, institutional or multi-family zone, where a building meets either: LEED – New Construction or LEED – Core and Shell (2009) 'Gold' or, Built Green 'Gold', and achieves a specific energy performance target, the maximum floor space ratio may be increased in accordance with the following Table 4C03.1:

PERFORMANCE TARGET		DENSITY (FSR) BONUS			
LEED – NC/CS (2009) Gold +	Built Green Gold +				
No Commitment	No Commitment	None			
Minimum Baseline 6 / 8 EA 1 Points	Minimum Baseline EnerGuide 80	0.02			
9 / 11 EA 1 Points	EnerGuide 82		0.04		
14 / 16 EA 1 Points	EnerGuide 84			0.06	
19 / 21 EA 1 Points	EnerGuide 86				0.08

TABLE 4C03.1

(2) Single-Family Residential Buildings

Notwithstanding the floor space ratio established in Table 502.2, the floor space permitted on a lot in any single family residential zone, including neighbourhood residential zones, may be increased in increments of 0.02 up to 0.08 for new buildings which meet Built Green 'Gold' and achieve an Energuide energy performance level established in the following Table 4C03.2:

PERFORMANCE TARGET	FLOOR SPACE BONUS				
Below Energuide 80	None				
Energuide 80		0.02			
Energuide 82			0.04		
Energuide 84				0.06	
Energuide 86					0.08

TABLE 4C03.2

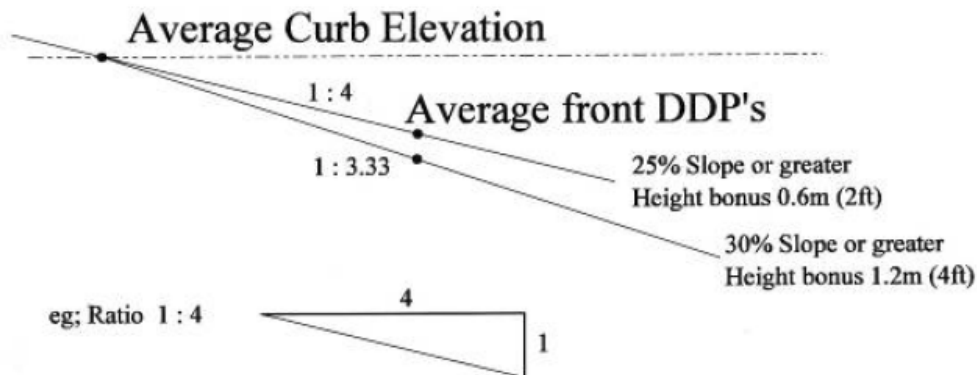
Delete subsection (iii) of section 502.2

502.2 General Regulations

The following regulations shall apply to all buildings and structures in single-family residential zones except for neighbourhoods listed and delineated in 502.1 Schedule 'A' ;

a) Single-Family Residential Buildings:

- (i) shall not exceed either the maximum height or maximum eave height stipulated in Table 502.1 except that where the average elevation of the front datum determination points is below the average street curb elevations so that a line joining the two average elevations inclines at a slope of 25% or greater below the horizontal, then
 - the allowable height of the principal building is bonused with an increase in height of 0.6m (2 ft.) for a slope of 25% or greater or 1.2m (4 ft.) for a slope of 30% or greater;
 - the allowable eave height is bonused with an increase of 0.6m (2 ft.) for a slope of 25% or greater or 1.2m (4 ft.) for a slope of 30% or greater to the extent that the height of the eave above finished grade does not exceed 6.71m (22 ft.); as illustrated by the following diagram:



Lot Width	Roof Pitch	Maximum Height	Maximum Eave Height
Less than 10.06m (33 ft.)	Flat Roof	6.71m (22 ft.)	6.71m (22 ft.)
	3 in 12 slope or greater	7.32m (24 ft.)	
10.06m - 12.19m (33 ft. – 40 ft.)	Flat Roof	6.71m (22 ft.)	6.71m (22 ft.)
	3 in 12 slope or greater	7.32m (24 ft.)	
	4½ in 12 slope or greater	7.92m (26 ft.)	
12.3m – 15.2m (41 ft. – 49 ft.)	Flat Roof	6.71m (22 ft.)	6.71m (22 ft.)
	3 in 12 slope or greater	7.32m (24 ft.)	
	4½ in 12 slope or greater	7.92m (26 ft.)	
	6 in 12 slope or greater	8.53m (28 ft.)	
15.24m (50 ft.) or greater	Flat Roof	6.71m (22 ft.)	Shall not exceed 5.49m (18 ft.) at the minimum; 1.83m (6 ft.) side yard but then may increase at a 45° angle inwards to a maximum eave height of 6.71m (22 ft.)
	3 in 12 slope or greater	7.32m (24 ft.)	
	4½ in 12 slope or greater	7.92m (26 ft.)	
	6 in 12 slope or greater	8.53m (28 ft.)	

Table 502.1
(Bylaw 7152)

- (ii) shall not extend above a line projected at a vertical angle of 45° inward from the point of maximum eave height with the exception of dormers of no more than 2.44m (8 ft.) in width and gable ends.
- (iii) Notwithstanding the floor space ratio established in Table 502.2, the maximum allowable floor space permitted on a lot in any single family residential zone, including neighbourhood residential zones may be increased for new buildings meeting a Built Green 'Gold' level plus a minimum energy performance level, as indicated in Table 4C03.2.

(Bylaw 7829)

Delete subsection (d) of section 4B88-5

4B88-5 Density

(a) The maximum permitted floorspace is regulated as follows:

Lots (as per plan of subdivision attached as Schedule B to Bylaw 8109)	Floor Space Ratio
Lots 1-4	0.35 + 11.5 m ² (124 sq ft)
Lots 5-12	0.35 + 43.0 m ² (463 sq ft)

(b) The area above 4.27m (14 ft) shall be counted as if it were an additional floor level for the purpose of determining the total floor area of a building.

(c) The floor space ratio exemptions for an RS1-5 lot found in Section 410 of the Zoning Bylaw apply to CD88.

(d) Notwithstanding the floor space ratio established for CD88, the maximum allowable floor space permitted on a lot in CD88 may be increased for new buildings meeting a Built Green 'Gold' level plus a minimum energy performance level as indicated in Table 4C03.2.

**DISTRICT OF NORTH VANCOUVER
COUNCIL WORKSHOP**

Minutes of the Council Workshop for the District of North Vancouver held at 6:05 p.m. on Monday, July 17, 2017 in the Committee Room of the District Hall, 355 West Queens Road, North Vancouver, British Columbia.

Present: Acting Mayor J. Hanson
Councillor R. Bassam
Councillor M. Bond
Councillor R. Hicks
Councillor D. MacKay-Dunn
Councillor L. Muri

Absent: Mayor R. Walton

Staff: Mr. D. Stuart, Chief Administrative Officer
Ms. C. Grant, General Manager – Corporate Services
Mr. G. Joyce, General Manager – Engineering, Parks & Facilities
Mr. D. Milburn, General Manager – Planning, Properties & Permits
Mr. A. Wardell, Acting General Manager – Finance & Technology
Mr. B. Dwyer, Manager – Development Services
Mr. T. Lancaster, Manager – Community Planning
Ms. M. Welman, Manager – Strategic Communications & Community Relations
Ms. L. Brick, Deputy Municipal Clerk
Ms. C. Archer, Confidential Council Clerk

1. ADOPTION OF THE AGENDA

1.1. July 17, 2017 Council Workshop Agenda

MOVED by Councillor MURI

SECONDED by Councillor MACKAY-DUNN

THAT the agenda for the July 17, 2017 Council Workshop is adopted as circulated.

CARRIED

2. ADOPTION OF MINUTES

2.1. June 20, 2017 Council Workshop

MOVED by Councillor MURI

SECONDED by Councillor MACKAY-DUNN

THAT the minutes of the June 20, 2017 Council Workshop are adopted.

CARRIED

3. REPORTS FROM COUNCIL OR STAFF

3.1. District of North Vancouver Public Engagement Approach

File No. 04.1400

Ms. Charlene Grant, General Manager – Corporate Services, reported that the purpose of this Council Workshop is to introduce the new draft public engagement guide. The document is a practical how-to guide for staff in all departments to provide direction and planning tools for public engagement. It standardizes and spells out terms to provide clarity and consistency for both staff and the public. It was noted that the focus of the guide is on discretionary public engagement, as opposed to statutorily required communications.

Council gave the Communications Department a clear mandate in 2013, as implementation of the Official Community Plan (OCP) began, to become more proactive with communications and consistent with the approach and messaging, to hear more broadly from the community and find innovative ways to reach the public. As communications activities became more complex, a need was identified to update the public engagement policy, which had last been revised in 1996.

Ms. Grant provided background on the project, noting there has been a strong ethic for and good work in public engagement by District staff, as well as a need for guidance to improve consistency. It was explained that previous policy was developed at a time when the web was the only technological concern and now, the paradigm shift to social media and mobile communications has made information more democratic and easily available. Extensive research was undertaken, including surveying staff and the public, reviewing academic papers, frameworks and policies from other municipalities and best practices and interviewing other municipalities and professional practitioners.

Ms. Grant reviewed the widely-used International Association for Public Participation (IAP2) Spectrum, noting that the language used to describe the continuum of public engagement levels defines what is being promised to participants:

- Inform: to provide information, such as construction updates or snow clearing procedures;
- Consult: to obtain feedback, such as online surveys;
- Involve: to work with the public throughout the process, such as the development of Official Community Plan local implementation plans;
- Collaborate: to partner with the public in each step of the process, including development of alternatives, such as the Delbrook Deliberative Dialogues; and,
- Empower: the decision is made by the public, such as an election or referendum.

It was noted that the guide is in draft form, to be refined and improved incorporating Council feedback from this workshop. A revised draft will be returned for Council consideration.

Council discussion ensued and the following comments and concerns were noted:

- Expressed concern regarding reaching representative samples of residents;
- Recommended including thresholds for public engagement such as a specific percentage of residents or affected residents;
- Commented regarding the importance of listening to the community, encouraging involvement and using a consistent approach;

- Noted that Council makes final decisions except in elections and referenda;
- Requested the results of the public opinion survey regarding engagement;
- Cautioned that the North Shore News does not reach all members of the community; and,
- Remarked that the public engagement tools used for discretionary engagement could also enhance statutory communications.

In response to a question from Council regarding thresholds required for input to be representative of the community, Ms. Grant advised that part of the planning process for each public engagement will be to set those targets.

In response to a question from Council regarding the public survey results, Ms. Grant reported that approximately three-quarters of respondents want to participate subject to an interest in the topics and as long as their input is meaningful. Differences were seen in the different age cohorts, although all age groups reported a preference for online surveys and to not attend meetings in person.

In response to a question from Council regarding hearing from a more diverse sample of the population, Ms. Grant advised that having many different ways to participate helps increase participation. It was noted that self-selection will always be an issue with public engagement and more research will be undertaken on how to reach hard-to-reach groups. Staff noted that technology provides less expensive options for engagement such as online surveys and automatic updates on topics of interest.

In response to a question from Council regarding which other municipalities use the IAP2 spectrum, Ms. Mairi Welman, Manager – Strategic Communications and Community Relations, reported that it is used in organizations worldwide to ensure consistency and a common understanding of the terms being used.

MOVED by Councillor MURI

SECONDED by Councillor BOND

THAT the District of North Vancouver Public Engagement Guide, attached to the July 10, 2017 report of the Manager – Strategic Communications and Community Relations entitled District of North Vancouver Public Engagement Approach, is received for information;

AND THAT the Public Engagement Approach detailed in the July 10, 2017 report of the Manager – Strategic Communications and Community Relations entitled District of North Vancouver Public Engagement Approach is approved.

DEFEATED

Opposed: Councillors BASSAM, HANSON and HICKS

MOVED by Councillor MURI

SECONDED by Councillor BASSAM

THAT this item be referred back to staff to be refined and returned to Council.

CARRIED

Opposed: Councillor BOND

3.2. New Construction Bylaw and *Building Act* Update

File No. 09.3800.01/000.000

Mr. Dan Milburn, General Manager – Planning, Properties & Permits, reported that District staff have been working on a draft Construction Bylaw and are working with the other North Shore municipalities to develop North Shore-wide standards.

Mr. Brett Dwyer, Manager – Development Services, reported that the new Construction Bylaw will establish requirements and processes for review, approval, inspection and completion of construction projects. The new bylaw is one of several District bylaws that address construction impacts, including the Street and Traffic Bylaw, Tree Bylaw and Zoning Bylaw.

The guiding principles used to draft the new bylaw are:

- Life safety and public safety are paramount;
- Reduce municipal risk by following the Municipal Insurance Association's (MIABC) model bylaw;
- Delegation of authority to staff to review, issue, inspect and enforce construction activities; and,
- Clarity, consistency and ease of use with simplified language, removal of redundant provisions, revision of ambiguous provisions and grouping of related provisions.

Mr. Dwyer highlighted the following improvements to the original Building Bylaw in the new Construction Bylaw:

- Requirement for a Building Envelope Professional to oversee all provisions of the BC Building Code related to energy efficiency to do with all aspects of the building envelope including, insulation and air-tightness;
- Risk-based inspections to allow high-performing contractors with reliable records to have individual, lower-risk inspections waived; and,
- Proactive provisions regarding sediment and erosion control to address concerns regarding environmental impact of construction sites.

In response to a question from Council regarding ticketing for environmental offences, Mr. Dwyer advised the new bylaw is more proactive. Mr. Milburn advised that the fines need be sufficient to deter violations and not so high that they most often remain unpaid. Staff is also considering recommending progressive fines for repeat offenders.

In response to a question from Council regarding risk-based inspections and liability, Mr. Dwyer advised that scoring for deficiencies has been tracked for a full year for all contractors. Mr. Milburn noted that having a clear system spelled out in the bylaw reduces risk and that MIABC has provided direction on this item.

Council discussion ensued and the following comments and concerns were noted:

- Commented that enforcement of the Standards of Maintenance Bylaw may reduce the number of demolitions;
- Noted adjacent neighbours need to be informed regarding the regulations for excavation; and,
- Commented regarding the District's Good Neighbour Policy.

Mr. Dwyer advised that the next steps are to incorporate Council feedback, consult with stakeholders and then return the new Construction Bylaw for Council consideration.

Mr. Dwyer reported that the Provincial Government has enacted the *BC Building Act* (the *Act*) to respond to industry complaints regarding inconsistent building standards between municipalities. It establishes the Province as the sole authority to set building standards and the *BC Building Code* as the construction standard province-wide. Municipalities will no longer be able to set higher standards than the *BC Building Code* and any local building requirements will be invalid as of December 15, 2017, with some exceptions. Mr. Dwyer highlighted green building density bonusing and the prohibition of stacked-rock walls as local regulations that will no longer have effect after this date.

Mr. Dwyer reviewed the local building requirements that will continue to apply following December 15, 2017, noting that there are unrestricted matters, time-limited unrestricted matters and matters that have been deemed out of scope of the *Act*.

Unrestricted matters are not subject to the restriction on local building requirements under the *Act* and can be regulated by local government to a higher standard than the *BC Building Code*:

- Accessible parking;
- Flood construction levels;
- District energy systems;
- Heritage protection;
- Development Permit Areas (DPA's);
- Sound transmission limiting the transmission of external sound into a building;
- Firefighting access design and firefighting water supply; and,
- Radio repeaters for emergency communication.

Time-limited unrestricted matters can be regulated by a municipality to a higher standard provided the requirement is adopted before, and not amended after, December 15, 2017:

- Fire sprinklers; and,
- Accessibility of buildings and adaptable dwelling units.

Municipalities are able to apply to the Province for Local Variations to request Provincial approval for a municipality to regulate a specific matter to a higher standard than contained in the *BC Building Code*. It was noted that approval to continue the District's prohibition of stacked-rock walls could be requested under this provision.

The *Act* also requires mandatory qualifications for all building officials, with a four-year transition ending February 28, 2021. Mr. Dwyer noted the District is well-positioned to have all requirements under this provision met by this date.

Mr. Dwyer provided an overview of the *Energy Step Code*, to be used in conjunction with the *BC Building Code* to incrementally improve energy efficiency of new buildings. The *Energy Step Code* moves from the current *BC Building Code* requirements at Step 1 to Net Zero ready at Step 5. Net Zero ready is defined as a building built to high energy efficiency standards ready, with additional measures, to

generate enough onsite energy to meet its own energy needs. It was noted that the industry is not yet ready to build to Step 5 requirements and the Province has advised municipalities to start at lower steps. It was noted that District staff is working with the other North Shore municipalities on a common approach to implementing the *Energy Step Code*. Consensus was reached between the municipalities to implement Step 2 on July 1, 2018, with redevelopments requiring rezoning to meet Step 3.

Councillor MURI left the meeting at 7:53 p.m.

MOVED by Councillor MACKAY-DUNN

SECONDED by Councillor BASSAM

THAT the July 5, 2017 report of the Manager – Development Services entitled New Construction Bylaw and Building Act Update is received for information.

CARRIED

Absent for Vote: Councillor MURI

4. Public Input

4.1 Mr. Corrie Kost, District Resident:

- Commented on community input;
- Expressed concern regarding the proposed flexible framework for public engagement; and,
- Queried how *BC Building Act* regulations will impact housing costs.

4.2 District Resident:

- Commented regarding public engagement with those directly impacted by a decision; and,
- Noted that the North Shore News is not delivered to all addresses in the District.

4.3 Mr. Keith Reynolds, District Resident:

- Commented on self-selection in public engagement; and,
- Noted that meaningful engagement allows Council to make final decisions with better information.

4.4 Mr. Juan Palacio, District Resident:

- Commented that young people are not always aware of what is happening at the municipal level or that they have a say, resulting in anger after decisions are made.

4.5 Mr. Peter Thompson, District Resident:

- Queried the accessibility of building permit records for owners.

5. ADJOURNMENT

MOVED by Councillor BASSAM

SECONDED by Councillor MACKAY-DUNN

THAT the July 17, 2017 Council Workshop is adjourned.


CARRIED

(8:04 pm)

Absent for Vote: Councillor MURI



Mayor



Municipal Clerk