CITY OF VANCOUVER

GUIDE TO THE CERTIFIED PROFESSIONAL PROGRAM



VERSION 3.0 DECEMBER 5, 2023





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List of Referenced Documents

Documents referenced in this Guide will change from time to time, so Certified Professionals must regularly download the most current versions. Refer to the City of Vancouver's Certified Professional Program website: http://vancouver.ca/home-property-development/certified-professional-program.aspx.

Certification of Professionals By-law - https://bylaws.vancouver.ca/6203c.pdf

<u>CP Program Process Flowcharts</u> - <u>https://vancouver.ca/files/cov/cp-new-existing-buildings-permit-review-process-flowchart.pdf</u>

Certified Professional Letters of Assurance -

Schedule CP-1 - https://vancouver.ca/files/cov/cp-1-letter-fillable-bylaw2019.pdf

Schedule CP-2 - https://vancouver.ca/files/cov/cp-2-letter-fillable-bylaw2019.pdf

Schedule CP-3 - https://vancouver.ca/files/cov/cp-3-letter-fillable-bylaw2019.pdf

Registered Professional Letters of Assurance –

<u>Schedule A - https://vancouver.ca/files/cov/schedule-a-confirmation-commitment-by-owner-building-bylaw-2019.pdf</u>

<u>Schedule B</u> - <u>https://vancouver.ca/files/cov/schedule-b-assurance-professional-design-field-review-building-bylaw-2019.pdf</u>

<u>Schedule D - https://vancouver.ca/files/cov/schedule-d-commitment-building-envelope-prof-review-building-bylaw-2019.pdf</u>

<u>Schedule C-A</u> - <u>https://vancouver.ca/files/cov/schedule-c-a-assurance-professional-field-review-building-bylaw-2019.pdf</u>

<u>Schedule C-B</u> - <u>https://vancouver.ca/files/cov/schedule-c-b-assurance-of-professional-field-reviewbuilding-bylaw-2019.pdf</u>

<u>Schedule C-D</u> - <u>https://vancouver.ca/files/cov/schedule-c-d-completion-building-envelope-prof-review-building-bylaw-2019.pdf</u>

<u>Tenant Improvement Development Review Confirmation Letter</u> - https://vancouver.ca/files/cov/tenant-improvement-development-review-confirmation-letter.pdf

Guide to the Letters of Assurance in the BC Building Code 2018 and Vancouver Building By-law 2019 - https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/construction-industry/building-codes-and-standards/guides/2018guideloa.pdf

<u>CP Signing Authority Form</u> - https://vancouver.ca/files/cov/cp-signing-authority-form-fillable.pdf

<u>CP Building Permit Online Application Guide</u> - <u>https://vancouver.ca/files/cov/cp-building-permit-online-application-guide.pdf</u>

<u>CP Program Building Permit Application Form</u> - https://vancouver.ca/files/cov/cp-building-permit-app.pdf

<u>CP Program Building Permit Application Submission List</u> - <u>https://vancouver.ca/files/cov/CP-building-permit-submission-list.pdf</u>

<u>Development Cost Charge Calculations Worksheet</u> - <u>https://vancouver.ca/files/cov/development-cost-charge-calculations-worksheet.XLSX</u>

<u>Authorized Staged Construction Form</u> - https://vancouver.ca/files/cov/CP-staged-construction-form.pdf and https://vancouver.ca/files/cov/CP-staged-construction-drawing-list.pdf

<u>Project Directory</u> - <u>https://vancouver.ca/files/cov/CP-project-directory-form.pdf</u>

<u>Development Permit Confirmation Letter</u> - <u>https://vancouver.ca/files/cov/cp-confirmation-letter-no-changes.pdf</u>

<u>Development Permit Confirmation of Changes Letter</u> - <u>https://vancouver.ca/files/cov/CP-confirmation-letter-with-changes.pdf</u>

Monthly Progress Report - https://vancouver.ca/files/cov/CP-monthly-progress-report.pdf

Occupancy Permit Submission Documents Checklist - https://vancouver.ca/files/cov/occupancy-permit-submission-documents-checklist.pdf

<u>Final Design Drawings Submission Guide</u> - https://vancouver.ca/files/cov/cp-final-design-drawings-submission-guide.pdf

Final Design Drawings Checklist - https://vancouver.ca/files/cov/cp-final-design-checklist.pdf

<u>CP Permit Fee Refund Request Form</u> - https://vancouver.ca/files/cov/cp-permit-fee-refund-request-form.pdf

<u>2019 Vancouver Building By-law Part 3, Book I Division B Plans Examination Checklist</u> - https://vancouver.ca/files/cov/CP-vbbl-short-checklist.pdf

List of Abbreviations

AIBC Architectural Institute of British Columbia

AHJ Authority Having Jurisdiction

BP Building Permit

BRB Building Review Branch

CBO Chief Building Official

CP Certified Professional

CRP Coordinating Registered Professional

DBI District Building Inspector

DCC Development Cost Charge

DCL Development Cost Levy

DP Development Permit

POSSE City of Vancouver Permitting System

RP Registered Professional

RPR Registered Professional of Record

SRP Supporting Registered Professional

TI Tenant Improvement

VBBL Vancouver Building By-law No. 12511 (2019)

The terms "Building By-law, "Building Code", and "Code" are used throughout this document. All of these terms reference the current Building By-law in effect in the City of Vancouver.

All Building Code reference numbers in the Guide refer to the 2019 Vancouver Building By-law No. 12511. All italicized terms in the Guide have the same definition as given them in Subsection 1.4.1 of Division A.

All items in green text indicate substantial changes from Edition #2 of the Guide (previously titled Certified Professional Program Practice and Procedure Manual).

1. Introduction

1.1 GENERAL

The Certified Professional (CP) Program is an alternative to the conventional building permit (BP) and inspection process in the City of Vancouver. As part of this alternate process the CP provides their professional assurance to the Chief Building Official (CBO) that they will take all appropriate steps to ascertain that the design will substantially comply and the construction of the project will substantially conform in all material respects with the Vancouver Building By-law(VBBL), other applicable safety enactments, and the related development permit (DP). The CBO relies upon the CP's assurances in issuing BPs and occupancy permits for a project constructed under the CP Program. This Guide is intended to be used as a reference in executing the CP Program in the City of Vancouver.

There are many reasons why a property *owner* chooses to use this Alternate Permit Process. Usually the *owner* uses the CP Program to expedite the BP issuance. In Vancouver, the CP Program allows for staged permitting and *construction*, which can be attractive to fast track *projects*. Staged permitting is not available except on a CP *project*.

The *owner* has an expectation that the CP is looking after the *owner*'s best interests. Since the CP is also acting on behalf of the Authority Having Jurisdiction (AHJ) in undertaking plan reviews and site reviews, the CP also has an obligation to the AHJ with respect to "Code coordination" [refer to Section 4.2]. Although there may be a perceived conflict of interest in these two roles of the CP, in fact there is no conflict. The CP is bound by the Professional Governance Act and the bylaws and code of ethics of their professional regulator (Engineers and Geoscientists BC or AIBC), which mandates protection of the public as the primary responsibility of its registrants.

The use of the CP Program is not mandatory for *permit* issuance. Practicing as a CP is an earned privilege. For the CP Program to operate successfully, the CP must demonstrate competence in Code knowledge and must be familiar with procedures as outlined in this Guide. The AHJ places a high level of expectation on the CP, as a result, CP *projects* are given significantly less oversight than conventional *projects* by City staff.

1.2 HISTORY OF THE CERTIFIED PROFESSIONAL PROGRAM

The *Certified Professional* (CP) Program was originally conceived for Vancouver in late 1978. It was recognized at that time that in many instances design professionals were relying too heavily on the City's plan reviewers and inspectors for complete verification of *project* compliance with the VBBL. The program was intended to give appropriate responsibility and authority for VBBL conformance and the underlying responsibility for ensuring public health and safety in and around buildings to registered Architects and Professional Engineers.

A joint committee of the Architectural Institute of BC (AIBC), the Association of Professional Engineers and Geoscientists of the Province of BC, and the Building Officials' Association of BC (BOABC) was formed to create and coordinate the implementation of the program.

In 1980 an educational course on "Use and Occupancy", Part 3 of the BC Building Code and the VBBL, was established through the University of British Columbia's Centre for Continuing Education. CP candidates were required to attend and pass this course. Subsequent courses and examinations have been offered on a regular basis to expand the program to a wider number of participants. Although many participants have taken this course over the years, only a small handful have gone on to take on the responsibilities of a CP on a *project* in Vancouver.

The CP Program has been hosted and administered by several different organizations over the years. Currently the City of Vancouver oversees the administration of the CP Program for *projects* within the City of Vancouver through its participation in the CP Advisory Group.

1.3 PURPOSE OF THIS GUIDE

This Guide to the Certified Professional Program will serve as a reference to *Certified Professionals* (CPs) in their day-to-day activities while fulfilling their role as CPs on *projects* in Vancouver. The intent of the Guide is to establish a minimum baseline of performance to which all CPs must adhere. This minimum baseline will improve the uniformity and consistency of the application of CP services throughout the *building construction* industry. Each CP is responsible for determining if the minimum requirements in this Guide are sufficient for each specific project.

1.4 QUALIFICATIONS TO BECOME AND REMAIN A CP

Enacted pursuant to Section 306(z) of the Vancouver Charter, the <u>Certification of Professionals</u> <u>By-law No. 6203</u> enables the City to recognize a registered architect or a professional engineer as a *Certified Professional* (CP). The criteria for a *registered professional* (RP) to retain or reinstate their name on the register include:

- Maintenance of professional registration with AIBC or Engineers and Geoscientists BC
- Successful completion of the CP Course and Examination
- Maintenance of Professional Liability insurance in the amount of not less than \$1,000,000 per claim
- Demonstration of a satisfactory knowledge of the provisions of the VBBL, including attendance at mandatory update seminars
- Fulfillment of the obligations described in the letter of assurance <u>Schedule CP-1</u> when practicing as a CP

Failure to comply with the above may result in removal of the CP's registration with the City of Vancouver.

2. Application of the CP Program

2.1 INTRODUCTION

This section outlines the types of *projects* to which the *Certified Professional* (CP) Program can be applied.

2.2 NEW BUILDINGS

The CP Program is applicable to the design and *construction* of any new *building* that falls under the scope of Sentence 1.3.3.2.(1) of Division A of the Vancouver Building By-law (VBBL).

2.3 EXISTING AND HERITAGE BUILDINGS

The CP Program may be utilized for significant *alterations* and *additions* to *existing buildings*, with prior acceptance by the CBO's office of the City of Vancouver. The CP Program is intended for complex projects under Part 3 of the VBBL, where the CP's expertise with the Code adds value to the permitting process. Where a proposed *project* is simple in scope and has little Code complexity, there are other permitting streams that are more appropriate than the CP Program (e.g. field review, TIPS, non-CP processing via the Building Review Branch (BRB)). The BP applicant is encouraged to discuss the most appropriate stream for their *project* early in the design process.

Part 11 of Division B and Notes to Part 11 of the VBBL can be used to establish the extent of upgrades required to an *existing building* as part of a proposed *project*.

Due to the wide variety of conditions that could occur with *existing buildings*, the CP will prepare a building code report that includes the recommended level of upgrades. The CP must meet with the AHJ prior to the BP application to obtain acceptance in principle of the proposed level of upgrades.

Where necessary the CP or an RP will prepare one or more "Acceptance of Existing Conditions with Mitigating Features" reports to identify any significant non-Code conforming existing conditions for those portions of the *existing building* that are required to be upgraded in accordance with Part 11 of Division B (e.g. elevator cab size, heritage door hardware, etc.).

The CP will also coordinate with the RPRs to determine if there are any *unsafe conditions* within the *existing building* that need to be corrected as part of the *alteration* or *addition project*. The existing *unsafe conditions* and the proposed remedial measures will be included in the CP's building code report.

A CRP and RPRs are required for each discipline with applicable *project* scope.

Refer also to Section 4.2.3.

2.4 NEW HOUSING AND SMALL BUILDINGS

The CP Program was originally conceived to apply to Part 3 of Division B buildings only. Sentence 6 of the <u>CP By-law</u> states that, "Where a building is evaluated for compliance with Part 3 of the Building By-law, a Certified Professional may make application for a Certified Professional Building Permit...".

Since the CP Educational Program does not include any modules on Part 9 of Division B of the VBBL, the use of Part 9 for evaluating the Building Code requirements under the CP Program is limited.

The CP Program may be used with prior acceptance by the City of Vancouver when a *building* meets the size, height, and *occupancy* requirements for Part 9 of Division B; however, the building must be evaluated using Part 3 of Division B of the VBBL. As indicated above for *existing buildings*, the City has permitting streams intended specifically for low-density housing and BP applicants are encouraged to pursue their permits via the most appropriate process.

The CP may elect to implement certain provisions of Part 9 for applicable *buildings*, provided that these Part 9 provisions are clearly described in the CP's building code report or code compliance drawings. Alternative Solution Reports are not required in order to implement the Part 9 provisions.

The following Part 9 provisions may be utilized for applicable CP *projects*, subject to the above procedure and acceptance by the CBO. This list of provisions is not exhaustive and other items from Part 9 may be applicable on a case-by-case basis.

- Waiver of fire separations within dwelling units where the uppermost floor is greater than 6
 metres above the lowest floor level;
- Spatial separation and exposure protection tables from Part 9; and
- · Provisions for egress from a dwelling unit.

A CRP and RPRs are required for each discipline with applicable *project* scope.

2.5 TENANT IMPROVEMENTS (FOR CP PROJECTS UNDER CONSTRUCTION)

The CP Program can be used for tenant improvement (TI) *projects* within a building shell where the base BP has been processed under the CP Program and where the building shell has not received its *occupancy permit*. This section outlines the procedures required for the issuance of a TI BP within the base *building* that has been issued a BP under the CP program.

The first TI project in each space of the base *building* that was processed under the CP Program may be processed under the CP Program using the base *building* CP.

The tenant must talk to Services Centre to establish the correct BP processing stream and the applicable timing for their application. An application through the Field Review Process versus through the BRB may have significantly different complexities and time frames. Refer to Figure 1 and https://vancouver.ca/home-property-development.aspx for the City's BP process options for TIs.

The specific procedure for TI BPs depends on the status of the base *building occupancy permit* when the tenant wishes to submit a TI BP. The most common examples of the status of *occupancy permit* clearance are outlined below.

- a) The base *building* shell for the tenant space is not complete and no *occupancy permit* has been issued for the base *building*. [See 2.5.1.]
- b) The base *building* shell for the tenant space is "essentially complete" with minor exceptions such as fire alarm verification, material test certificates for sprinklers, and functional testing of the fire and life safety systems; no *occupancy permit* has been issued for the base *building*. [See 2.5.2]
- c) The base *building* is partially complete and an *occupancy permit* has been issued for a portion of the base *building* that does not include the tenant space. [See 2.5.3]
- d) The base *building* is partially complete, and an *occupancy permit* has been issued for a portion of the base *building* that includes the tenant space (shell only). [See 2.5.4]
- e) The base *building* shell is complete and an *occupancy permit* has been issued for the entire *building* as shell space only (e.g. non-residential *buildings*). [See 2.5.4]
- f) The base building shell is complete, and a final occupancy permit has been issued that includes the completed portions of the base building and the shell spaces for the incomplete tenant portions. [See 2.5.4]

The CP should discuss the consequences of the different scenarios for TI work up-front with the *building owner* and the City in order to facilitate the best plan for the anticipated BP process. The *owner* should explain to potential tenants their obligations for the BP process under the CP Program.

2.5.1 BASE BUILDING SHELL IS NOT COMPLETE [EXAMPLE 2.5(A)]

If TI *construction* commences prior to the completion of the base *building* shell, there is only one option for processing the TI BP:

a) The base building CP submits a separate BP application under the CP Program for the TI work (following standard CP submission requirements as applicable for the tenant space). A CRP and RPRs are required for each discipline with applicable *project* scope. For this option, it is strongly recommended that the *owner* (or tenant) retain the same CRP and RPRs as for the base *building* for all applicable disciplines, or must present a strategic plan to the City outlining the approach to coordination with the base *building* design. The plan for coordination between base building CRP and RPR's and TI CRP and RPR's must be agreed to in advance to facilitate submission of a TI BP application under this option.

2.5.2 BASE BUILDING SHELL IS "ESSENTIALLY COMPLETE" [EXAMPLE 2.5(B)]

There are three possible options for TI BP applications for work within a base *building* when the *building* shell space is "essentially complete" (i.e. excluding such things as fire alarm verification, material test certificates for sprinklers, and functional testing of the fire and life safety systems) but has not yet been issued an *occupancy permit* by the City under the CP Program.

a) The base building CP submits a separate BP application under the CP Program for the TI work (following standard CP submission requirements as applicable for the tenant space). For this Option, the owner (or tenant) must retain a CRP and RPRs for all disciplines with

- applicable project scope, but not necessarily the same as for the base *building*. Note that only the base *building* CP may act as CP on a subsequent TI in a base *building* shell space that has not yet received an *occupancy permit*. A TI application under the CP Program for a space not previously occupied must include a <u>Tenant Improvement</u> <u>Development Review Confirmation Letter</u> to indicate the new *project*'s compliance with or variation from the base building DP.
- b) Base *building* shell is "essentially complete" The *owner* (or tenant) submits a separate BP application, not under the CP Program, for the TI work. This TI BP application can be submitted prior to base *building* shell occupancy. As outlined in Schedule CP-3, the base *building* CP must be retained to provide a review of the plans and supporting documents that have been prepared by the TI RPRs for certification of "tenant improvement compatibility" with the base *building*. The CP provides Schedule CP-3 to the TI *permit*'s CRP, including a list of TI drawings that the CP reviewed and a list of minor items within the base *building* shell that are not yet complete (e.g. fire alarm verification), as accepted by the CP and the District *Building* Inspector (DBI). The TI's CRP makes the BP application to the City under the non-CP BP process, including the original signed and sealed Schedule CP-3 in their submission. The procedure and timing for *permit* issuance for these types of TI *permits* will follow the normal non-CP *permit* procedure. The CP does not need to apply their CP stamp to the TI drawings, and the CP does not provide any site review during *construction* of the TI work.
- c) Base *building* shell is close to being "essentially complete" at the time of the TI BP application The owner (or tenant) submits a separate BP application, not under the CP Program, for the TI work. This TI BP application can be submitted prior to base *building* shell occupancy. The base *building* CP provides the tenant's CRP with a signed and sealed letter of commitment that they will submit a <u>Schedule CP-3</u>, a list of TI drawings that the CP reviewed, and a list of minor items within the base *building* shell that are not yet complete, once the base *building* shell is "essentially complete", and prior to issuance of the TI BP. This letter should also include the status of construction of the TI shell space and an estimated time for the TI shell space to be "essentially complete". The City will only accept this commitment letter if the TI BP review timing is close to matching the time when the shell space will be "essentially complete". This will vary depending upon the applicable BP processing stream. The tenant's CRP must consult the City's Services Centre for advice on timing of their application. Refer to Clause (b) above for the subsequent process for submitting the Schedule CP-3.

"Tenant improvement compatibility", as noted above, means that the CP has taken the necessary steps to ascertain that the RPRs for the TI as shown on their plans and supporting documents for the *project* have provided substantial compatibility with the original VBBL concepts for the base *building*.

"Essentially complete" means that all base *building* construction within the interior of the tenant space is complete including, but not limited to, all fire separations, building services, fire alarm devices, sprinkler and standpipe system, exit signs, base *building* lighting & HVAC, emergency lighting, plumbing, and *fire stop* of building service penetrations. Minor work on the exterior building envelope of the tenant shell space may still be underway. Fire alarm verification, material test certificates for sprinklers, and functional testing of the fire and life safety systems need not be complete. The CRP and CP will coordinate these incomplete items with the base *building*

contractor and the TI contractor at the time of base *building* occupancy to avoid incomplete TI work that could impact the testing of the fire and life safety systems.

Note that while the TI permit may be issued under the conditions described above, the AHJ will not release the *occupancy permit* for the TI work until the base *building* shell obtains an *occupancy permit*.

2.5.3 OCCUPANCY PERMIT HAS BEEN ISSUED FOR THE SHELL OF THE BASE BUILDING EXCLUDING THE AREA OF THE TENANT SPACE [EXAMPLE 2.5(C)]

The options for a TI BP application in a *building* that has been issued a partial *occupancy permit* for the shell space excluding the tenant space are the same as those outlined in section 2.5.2., including the requirements for CRP and RPRs.

2.5.4 OCCUPANCY PERMIT HAS BEEN ISSUED FOR THE SHELL OF THE BASE BUILDING THAT INCLUDES THE AREA OF THE TENANT SPACE [EXAMPLES 2.5(D), (E), AND (F)]

Where the base *building* has been issued an *occupancy permit* for a shell space that includes the area of the tenant space, BP applications for TIs do not require any involvement of the CP responsible for the base *building* BP. The tenant may submit a TI BP application directly to the City or may obtain the services of a CP. A TI application under the CP Program for a base *building* space not previously occupied requires the owner (or tenant) to retain a CRP and RPRs for all disciplines with applicable *project* scope, but they need not be the same as for the base *building*. A TI application under the CP Program for a space not previously occupied must include a <u>Tenant Improvement Development Review Confirmation Letter</u> to indicate the new *project*'s compliance with or variation from the base building DP. For TIs in buildings or spaces previously occupied, refer to section 2.3.

All TI work must be carried out under a new TI BP that is separate from the base *building* BP. The TI work cannot be done under a revision to the base *building* BP once shell *occupancy* is given.

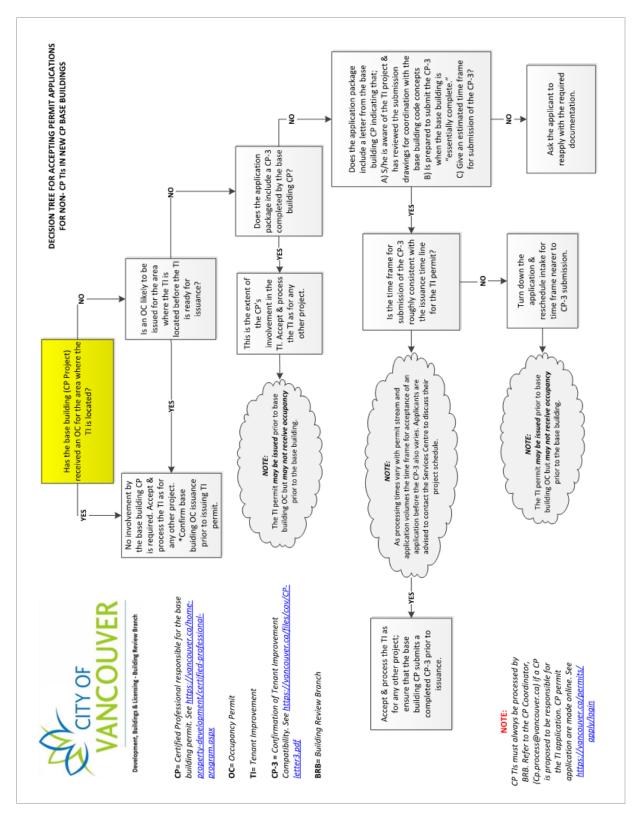


Figure 1: Decision Tree for Accepting Permit Applications for Non-CP TIs in New CP Base Buildings

3. Responsibilities of the Building Owner and Design Team

3.1 INTRODUCTION

The responsibilities of the *building owner* and design team as described in the Building Code are unchanged whether or not a CP is involved in the *construction project*. This section outlines the responsibilities of each party in the context of a CP *project*.

3.2 OWNER

The ultimate responsibility for code compliance rests with the *owner*, as stated in Article 1.2.1.2. of Division A.

As described in Subsection 2.2.7. of Division C and Schedule CP-1, the duties of the *owner* include the following:

- a) Retain a CP to undertake "code coordination";
- b) Retain a CRP to coordinate all design work and field reviews of the RPRs;
- c) Prior to issuance of a BP, have the CP deliver letters of assurance to the AHJ in the form of Schedule CP-1 from the CP, Schedule A from the coordinating registered professional (CRP), Schedule B from each of the registered professionals of record (RPRs) (architectural, structural, mechanical, plumbing, fire suppression, electrical, geotechnical), and Schedule D from the building envelope professional; and
- d) Prior to issuance of the occupancy permit, have the CP deliver letters of assurance to the AHJ in the form of <u>Schedule CP-2</u> from the CP, <u>Schedule C-A</u> from the CRP, and <u>Schedule C-B</u> from the RPRs (architectural, structural, mechanical, plumbing, fire suppression, electrical, geotechnical), and <u>Schedule C-D</u> from the building envelope professional.

When the *owner* chooses to use this alternate BP process, they must understand the roles and responsibilities of the AHJ, CP, CRP and RPRs, and other participants of the *building project*. The *owner* often chooses this alternative process so that the BP can be expedited, and does not realize there are other obligations of all the participants beyond the *permit* issuance. CPs are advised to have their contractual agreements with *owners* reflect the responsibilities and expectations as outlined in this Guide.

3.3 COORDINATING REGISTERED PROFESSIONAL

The obligations of the CRP, when part of the design team on a CP *project*, are the same as for a non-CP *project*. The CRP is responsible for coordinating the design and *field review* of the RPRs for the *building project* in order to meet the objectives of the Vancouver Building By-law (VBBL). This coordination must be undertaken throughout the duration of the design and *construction* process. Each individual *registered professional* (RP) is responsible for their own design and *field review*. The CRP is responsible for coordinating the work of each *registered professional of record* (RPR), and for the review and checking of all design documents prepared by the RPRs for the *project* throughout the term of the *project*. The CRP is the contact point between the CP, the *owner*, and each RPR and, as such, is responsible for ensuring communication between all parties.

It is the CRP's responsibility to ensure that all letters of assurance for the *project* are completed properly. The CRP submits the signed and sealed letters of assurance to the CP on the *owner*'s behalf.

By signing and sealing Schedule A, the CRP confirms that they:

- will coordinate the design work and *field reviews* of all RPRs retained for the *project* in order to ascertain that the design substantially complies with the VBBL,
- will notify the AHJ immediately if they cease to be retained on the *project*,
- will provide the CP with the Schedule B for each RPR retained on the project and the Schedule D from the building envelope professional, complete with the CRP initials on each page of the Schedules, and
- will notify the CP immediately of any RPR who ceases to be retained on the *project*, even if the firm does not change.

The CRP is responsible for ensuring that a RPR for each discipline for which a RPR is required completes Schedule B and Schedule C-B at the appropriate times during the *project*. The CRP must initial all Schedules and submit them to the CP.

By signing Schedule C-A at the end of the *project*, the CRP confirms that:

- they have fulfilled their responsibilities for coordination of *field review* by all the RPRs,
- they have fulfilled their responsibilities for coordination of the functional testing of fire
 protection and life safety systems (see Article A-2.2.7.3. of Division C Notes to Part 2 for
 further details), and that
- these systems substantially comply with both the VBBL and with the plans and supporting documents that were submitted with the BP application.

Clause A-2.2.7.2.(1)(a), Sentence A-2.2.7.2.(2), and Article A-2.2.7.3. of Division C - Notes to Part 2 of the VBBL provide further guidance on the roles and responsibilities of the CRP.

3.4 REGISTERED PROFESSIONAL OF RECORD

The registered professional of record (RPR) is the registered professional (RP) retained by the owner for the provision of the major part of the professional services within a particular discipline. The RPR is also responsible for the review and checking of all design documents prepared by any supporting registered professionals (SRPs) retained on the project within that discipline.

The RPR for each discipline must complete Schedule B at the time of BP application. By signing Schedule B, the RPR:

- Identifies the professional discipline (i.e., architectural, structural, mechanical, plumbing, fire suppression systems, electrical, or geotechnical) for which they are responsible (see A-2.2.7.3., Section 3.0 of Division C Notes to Part 2 for further details),
- Confirms that the design that they have prepared substantially complies with the requirements
 of the VBBL, except for construction safety aspects (see A-2.2.7.3., Section 1.0 of Division C Notes to Part 2 for further details),
- Confirms that they will take responsibility for *field reviews* during *construction* within their respective discipline,
- Confirms their responsibility for determining that *field reviews* have been undertaken on the work of any SRPs retained on the *project* within that discipline, and
- Commits to notifying the AHJ immediately if they cease to be retained on the *project*, even if the firm that retained that RP is still on the *project*.

Except under special circumstances, only one Schedule B and one Schedule C-B should be completed and submitted by one RPR for each discipline. Refer to the <u>Guide to the Letters of Assurance in the BC Building Code 2018 and Vancouver Building By-law 2019</u> for further information.

If a staged BP process is utilized for the *project*, each RPR will submit their Schedule B with their completed plans and supporting documents for that stage when they are submitted to the AHJ for such stage.

Division C - Notes to Part 2 of the VBBL provides further guidance on the roles and responsibilities of RPRs.

3.5 CONTRACTOR

The role of the *contractor* is to construct the *building project* in accordance with the contract documents provided by the RPRs and to request clarification of the intent where the requirements of the contract documents are not clear.

The responsibility for *construction* safety as described in Part 8 of Division B rests with the *contractor*.

3.6 AUTHORITY HAVING JURISDICTION

The responsibility of the AHJ is to provide the necessary administrative procedures to facilitate the CP Program, including review of the BP submission documents, issuance of BPs, periodic monitoring of *construction* with the CP, witnessing of functional testing of fire and life safety systems, review of *occupancy permit* documents, receipt of final design drawings, and issuance of *occupancy permits* (or provisional/final approval).

The responsibility of the AHJ also includes the issuance of information bulletins from time to time in order to inform the CPs, CRPs, and RPRs of recent interpretations or policies by the AHJ.

The AHJ will provide access to key staff who have the authority to make decisions.

The CP will make arrangements to meet with the AHJ at the *project* site on a regular basis and at critical times during *construction*. The frequency of such site visits will be determined by the CP and the AHJ based on the complexity of the *project* and type of activities that are underway.

District Electrical, Plumbing and Gas Inspectors (where applicable) will provide the same level of monitoring of construction on CP *projects* as they do on non-CP *projects*.

4. Responsibilities of the CP

4.1 INTRODUCTION

The CP is the main point of contact for the AHJ with respect to coordination of the various *permits* that are required for *building projects*. This *permit* coordination duty includes communication with the *owner* and the design team on specific Building Code issues and solutions and conveying any conditions or requirements of the BP.

Responsibility for substantial Code compliance is multi-faceted and complex. The VBBL has three Divisions (A, B and C), addressing Compliance, Objectives and Functional Statements; Acceptable Solutions; and Administrative Provisions. Division B, Acceptable Solutions, includes 12 Parts, describing the design requirements for buildings and construction sites. In addition, there are numerous referenced standards.

The CP is not expected to be an expert on all portions of the building code or the reference standards. However, the CP is expected to have a thorough knowledge of Division A; Parts 1 and 3 of Division B; and Division C. The CP is also expected to have conceptual knowledge of certain standards referenced in Part 3 (for example, but not necessarily limited to NFPA 13, 13R, 14, 80, and 96, and CAN/ULC S524, S537, and S1001). In addition, the CP is expected to have knowledge of when to apply other referenced standards and when to obtain advice from other RPs.

The CP provides an independent review of the design and *field review* process, which is intended to replace monitoring that is traditionally carried out by the AHJ. The CP acts on behalf of the AHJ with respect to plan review and site review services. The introduction of a CP into a *project* substantially reduces the monitoring and reviewing activities of the AHJ.

4.2 CODE COORDINATION FROM THE CP'S POINT OF VIEW

The role of the CP is to provide "Code coordination" for building projects.

"Code coordination", as defined in Schedule CP-1, includes the following tasks:

- 1. act on behalf of the *owner* as the *owner*'s representative in matters involving the City of Vancouver in relation to the BP, related *project construction* and related *occupancy permit*;
- 2. ascertain that the required "registered professionals of record" for the project have been retained to provide design and field review in accordance with the VBBL;
- 3. obtain the necessary letters of assurance of professional design and commitment for *field* review from the "registered professionals of record" for the project and deliver the originals of same to the CBO when applying for the BP for the project;
- 4. obtain the other necessary documents required to support the *BP* application and deliver same to the CBO when applying for the BP for the *project*;
- 5. apply for and obtain a BP for the *project* in accordance with the process as described in the VBBL;

- 6. provide "design review" of the plans and supporting documents prepared by each of the "registered professionals of record" for the project;
- 7. ascertain that the "registered professionals of record" have incorporated in their plans and supporting documents, the requirements of the VBBL Division A; Division B Parts 1 and 3; and Division C;
- 8. ascertain that the Division A; Division B, Parts 1 and 3; and Division C VBBL requirements governing the *project* are compatible between the plans and supporting documents prepared by each "registered professional of record";
- 9. provide "site review" of the components of the plans and supporting documents prepared by each of the "registered professionals" of record for the project;
- 10. keep records of all "site reviews" by the CP and of any corrective action required and taken as a result of these "site reviews". Discrepancies noted during "site reviews" must be tracked and the resolution of these discrepancies noted such that a list of significant unresolved discrepancies can be provided at any time;
- 11. "monitor field review activities" of the "registered professionals of record";
- 12. monitor and report on significant events and changes in the *project*;
- 13. submit a monthly summary progress report to the *Chief Building Official* during *construction* of the *project*;
- 14. consult with the CBO if any unresolved variances in interpretation of the VBBL arise between the CP and the "registered professionals of record";
- 15. consult with the CBO if any unresolved issues with respect to the VBBL arise between the CP and the *contractor*:
- 16. review relevant shop drawings with respect to the requirements of Division A, Division B, Parts 1 and 3 and Division C of the VBBL;
- 17. notify the CBO in a timely manner of any significant known, unresolved contraventions of the VBBL or BP requirements;
- 18. obtain the necessary letters of assurance of professional *field review* and compliance from the "registered professionals of record" for the project and deliver the originals of same to the CBO when applying for the occupancy permit for the project;
- 19. obtain the other necessary documents required to support the *occupancy permit* application and deliver same to the CBO when applying for the *occupancy permit* for the *project*;
- 20. apply for *occupancy* approval for the *project* in accordance with the process as described in the VBBL; and
- 21. apply the *CP* stamp to all relevant documents that are submitted to the CBO. Affixing their CP stamp to a document confirms that the CP has provided the relevant portion of "Code coordination" applicable to that document.

Schedule CP-1 includes the following defined terms:

• "Design review" means the activities necessary to ascertain that the design of the *project* will substantially comply, in all material respects, with the requirements of Division A; Division B, Parts 1 and 3; and Division C of the VBBL.

- "Monitoring field review activities" means ascertaining that the "registered professionals of record" are providing field reviews as required by Division C, Part 2 of the Building By-law, and includes keeping records of all field review reports prepared by each "registered professional of record". The owner will instruct each "registered professional of record" to highlight in their field review reports any significant variation from the documents accepted in support of the BP and any corrective action as needed. The CP will review the variations highlighted in the field review reports and notify the CBO, in a timely manner, of significant unresolved variations from the documents accepted in support of the BP.
- "Registered professional of record" means a RP retained to undertake design work and field review pursuant to Schedules B and C-B of Subsection 2.2.7 in Division C of the VBBL.
- "Site review" means the activities necessary in the CP's professional judgment to ascertain that the *construction* of the *project* substantially complies, in all material respects, with the requirements of Division A; Division B, Parts 1 and 3; and Division C of the VBBL and the requirements of the BP and monitoring for compliance with the DP issued for the *project*.

The CP's fundamental role is to ascertain that the RPRs have been retained for the design and *field review* of all Code related aspects (Parts 1 to 7 inclusive, relevant portions of Part 9, and Part 10 in Division B) and to monitor that they are fulfilling their specific roles and responsibilities with respect to the *project*.

The role of the CP is different from the RPRs in that traditionally the CP does not produce drawings that form part of the *construction* documents. They bring to the *project* a specialized knowledge of the Building By-law in order to coordinate and monitor the implementation of such Code requirements by the RPRs.

The CP does not relieve the CRP of their responsibility in the first instance for substantial compliance with all relevant Parts of the Building By-law, nor for coordination of all design documentation and *field reviews* by the RPRs. The CP has an authoritative role in the review and interpretation of items related to the requirements of Parts 1 and 3 in Division B of the Building By-law. The CRP also carries this responsibility, but it is expected that the CRP will confer with the CP in matters related to Parts 1 and 3 of Division B.

4.2.1 PARTS 4, 5, 6, 7, AND 10 OF DIVISION B

The CP education course does not contain any sessions on Parts 4 through 10 of Division B in the Building By-law. It is not a fundamental requirement of being a CP that the CP is an expert in any or all of these Parts of the Code. The CP's responsibility for Code-related matters in Parts 4 to 10 is described below.

The CP is required to carry out a detailed review of the *project* design to assure compliance with Parts 1 and 3 of Division B in the VBBL, and also has a responsibility for "Code coordination" with Parts 4 to 7 and 10 of Division B.

It is not intended that the CP assume responsibility for the compliance of either the technical design or subsequent *field reviews* with Parts 4, 5, 6, 7, or 10 of Division B. However, because the CP is effectively "standing in the shoes of the AHJ", the CP needs to provide a level of overview beyond simply obtaining drawings and letters of assurance. These overview activities should typically include:

• Providing "design review" of the drawings prepared by the RPRs as defined in Schedule CP-1;

- Reviewing the drawings to assess their general level of completeness and establishing that the requirements of Division C, Section 2.2 "Administration" have been followed;
- Collecting the Checklist for Professional Structural Concept Review where applicable by the Engineers and Geoscientists BC Quality Management Guidelines and submitting it to the AHJ with the BP application;
- Reviewing the design documents of the specialty design disciplines under Parts 4, 5, 6, 7, and 10 of Division B for compatibility with the Fire Protection, Occupant Safety, and Accessibility provisions of Part 3 and the general requirements of Parts 1, 2 and 3 of Division A;
- Submitting any peer review reports requested by the AHJ;
- Bringing to the attention of the RPRs any code coordination issues observed on site and checking that these are appropriately addressed, and
- Applying for and obtaining the necessary revisions to the BP as required for design changes during construction and as documented by the appropriate RPR(s).

In addition to the general overview function, the CP shall carry out the following specific tasks:

- Ascertain that the CRP has confirmed that the owner has retained registered professionals (RPs) to provide design and field review services;
- Collect signed and sealed plans and supporting documents from the RPRs and submit such plans and supporting documents to the AHJ with the BP application;
- Collect letters of assurance (Schedules A, B and D) from the CRP for the confirmation of their design and commitment for *field review* and submit such letters to the AHJ at the appropriate stage of BP application;
- Confirm that the documentation received from the RPRs meets the minimum requirements set forth in this Guide before making the BP application;
- Review to confirm that the applicable items for the project have RPRs in place;
- Monitor the field review activities of the RPRs as defined in Schedule CP-1;
- Confirm that the appropriate trade, street *occupancy*, and hoarding *permits* have been taken out and review the arrangements with the *contractor* to call out the inspectors at the appropriate times:
- Report to and consult with the CBO as described in Schedule CP-1;
- At the end of the project, collect letters of assurance (Schedules C-A, C-B and C-D) from the CRP; and
- Collect other occupancy permit submission documents and submit to the AHJ.

4.2.2 PART 10 – ENERGY AND WATER EFFICIENCY

Division B - Part 10 – Sentence 10.2.1.1.(1) requires that, except as permitted by Sentence (2), all buildings shall be designed and constructed in conformance with Subsection 10.2. for the purpose of energy efficiency.

Refer to https://vancouver.ca/home-property-development/large-building-energy-requirements-forms-checklists.aspx for detailed information on the energy design requirements and the forms to be submitted with BP applications.

The responsibility of the CP is to collect these forms from the design team and submit them to the City along with the BP application documents.

4.2.3 PART 11 - EXISTING AND HERITAGE BUILDINGS

As described in Section 2.3 of this Guide, the CP Program can be used for *alterations*, *additions* and changes of *major occupancy* to *existing buildings* and *heritage buildings* in certain cases.

The CP must be familiar with the requirements of Part 11 and the upgrade triggers that are described in Notes to Part 11 – Article A-11.2.1.2.

Due to the wide variety of conditions that can occur in *alterations*, *additions* and changes of *major occupancy* to *existing buildings* and *heritage buildings*, it is critical that the CP consult with the AHJ at an early stage of the design development to determine an acceptable approach to upgrades and whether the *project* is eligible for the CP Program. The CP must submit a Part 11 code analysis indicating the upgrade triggers and schematic design drawings in a mandatory preapplication meeting with the BRB. In evaluating the appropriate level of upgrades, the AHJ will look at the broad picture of the proposed development. If the proposed modifications to an *existing building* significantly extend the life of the *building*, consideration should be given to life safety upgrades that reflect the increased life cycle of the *building*. The CP is responsible for preparing minutes of the pre-application meeting in a timely manner and submitting them for concurrence to the City staff who participated in the meeting.

The CP will coordinate the upgrade requirements with the CRP and RPRs and provide to the AHJ the following documents as part of the BP application for *alterations* or *additions* and changes of *major occupancy* to *existing buildings* and *heritage buildings*:

- A building code report that includes the following aspects:
 - Description of the proposed construction
 - Description of the compliance of the work proposed with Part 3 and/or the Alternative
 Compliance Measures of Part 11
 - Analysis to determine the extent of upgrade required by Division B Notes to Part 11 Article A-11.2.1.2.
 - Identify the building elements that will be upgraded
 - Identify any *unsafe conditions* that will be upgraded
- "Request for Acceptance of Existing Condition with Mitigating Features" application to identify building elements that would normally require upgrading, but are not feasible to upgrade (e.g. elevator cab size, heritage door hardware, etc.)
- Code compliance drawings as described in Section 5.2.9 of this Guide

4.3 USE OF CP STAMP AND PROFESSIONAL SEAL

For CPs who are architects – refer to AIBC Bylaws, Schedule A, Professional Standard 8.0 for the use of professional seals.

For CPs who are professional engineers – refer to Engineers and Geoscientists BC Bylaw 7.3.7 and the Guide to the Standard for the Authentication of Documents.

Generally, the CP will apply their CP stamp, complete with the CP's initials and date, to the following documents:

- Every page of drawing sets from the CP, CRP, or RPR that are submitted for BP;
- Every page of the letters of assurance from the CP, CRP, and RPR that are submitted for BP;
- The first page of other BP submission documents (e.g. detail books, door schedules);
- The first page of Addressing Drawings that are submitted for BP application (note that professional seals are not required on Addressing Drawings);
- The first page of drawings submitted for trade permits (e.g. plumbing, fire suppression, and electrical permits);
- The first page of each alternative solution request form;
- The first page of drawing sets from each RPR that are submitted for final design drawings;
 and
- The first page of other required correspondence to the AHJ.

The purpose of the CP stamp is to signify that these documents form part of the CP *project* and shall not constitute an approval of design services rendered by others.

The CP stamp also identifies that the CP has undertaken "code coordination" as it relates to the document which bears their CP stamp.

The CP will apply their professional seal as prescribed by the applicable professional association to the following documents:

- at least one page of the building code report that is prepared by the CP;
- the letters of assurance (<u>Schedules CP-1, CP-2, and CP-3</u>) prepared by the CP;
- the first page of alternative solution request forms that are prepared by the CP;
- every page of the code compliance drawings prepared by the CP.

Engineers and Geoscientists BC require their registrants to include their firm's Permit to Practice Number on every authenticated document: see Bylaw 7.3.7 (14). This means that all documents to which a CP who is a professional engineer applies their professional seal must also include the CP's firm's Permit to Practice Number – e.g. their code compliance report, code compliance drawings, Schedule CP-1, etc. The Permit to Practice Number is not provided if the CP applies only their CP stamp to a document.

• CPs must confirm that each RPR's Permit to Practice Number is included on documents as required prior to submitting to the AHJ.

- Each drawing in a set is considered a separate document and must include the RPR's Permit to Practice Number.
- The Permit to Practice Number may be applied by type, handwriting, electronic means, rubber stamp or any other method that is visible and legible.

4.4 USE OF DIGITAL CERTIFICATE FOR PROFESSIONAL SEALS AND CP STAMPS

All drawings and documents must be submitted digitally with valid AIBC or Engineers and Geoscientists BC digital certificate for professional seals and CP stamps and uploaded directly to POSSE. Refer to https://vancouver.ca/files/cov/cp-building-permit-online-application-guide.pdf and https://vancouver.ca/home-property-development/electronic-permit-applications.aspx for the City's procedures for POSSE submissions using the AIBC or Engineers and Geoscientists BC digital certificates.

Refer to the following websites for further information on the use of professional seals and AIBC or Engineers and Geoscientists BC digital certificates:

AIBC Bylaws: https://aibc.ca/about/regulatory-authority/legislation-and-bylaws/

Engineers and Geoscientists BC – Quality Management Guides – Guide to the Standard for the Authentication of Documents: https://www.egbc.ca/getmedia/bf1c2174-de3b-45b2-812f-cceb6958e1e8/EGBC-Authentication-of-Documents-V3-0.pdf.aspx

Digital Seals: https://notarius.com/en/

4.5 DELEGATION OF RESPONSIBILITY

In the early 1980s when the CP Program was first implemented, it was envisioned that the CP would personally review the drawings and supporting documents for the *projects* in which they were engaged. It was also envisioned that the CP would personally liaise with the AHJ and the rest of the design and construction team over the course of the *project*. As the business aspect of CP services developed, it became increasingly common for CPs to enlist the aid of non-CPs and technical staff who are not architects or professional engineers to aid them in their activities. Although this practice may be acceptable, the following general principles apply.

- The CP is the primary point of contact for the *project* in the eyes of the AHJ. Whenever a
 Code issue arises which requires input from the AHJ, the CP must personally be at the
 forefront of all such communications.
- It is acceptable for non-CP supporting staff to make non-Code related inquiries to the AHJ in relation to the *project*. For example, if information is required about the status of a *permit* application and what, if any, review groups have outstanding items, non-CP supporting staff are free to pursue this information.
- A CP can assign activities to others but cannot delegate their ultimate responsibility for the obligations described in the Schedule CP-1.
- CPs may have circumstances which take them away from their projects for a period of time.
 The CP stamp implies a level of knowledge and review. So long as drawings and documents are CP stamped, CPs can substitute for each other. The CP may <u>assign</u> their work to another

- CP. Assignment to CPs from a different firm is permitted, provided the substitute CP demonstrates that they are adequately covered by professional liability insurance. The CP of record shall inform the substitute CP of any special design characteristics of the *project*. The CP of record shall maintain overall knowledge of the *project* and will be expected to liaise with the substitute CP upon their return. The CP of Record will notify the AHJ prior to any temporary assignment of responsibility to another CP. This notification can take the form of a letter or the City's template, signed, sealed and CP stamped by the CP of record, clearly denoting the dates the CP of record is away and identifying the substitute CP.
- If drawings and supporting documents are to be submitted for a *project* while the CP of record is absent, the <u>substitute</u> CP should apply their own CP stamp, but annotate it with "Stamped on behalf of [name of CP of record]".
- Note that AIBC and Engineers and Geoscientists BC do not permit a CP or RPR to delegate authority to another *registered professional* when it relates to applying their professional seal.

Guidelines regarding delegation of the CP's authority during *construction* are provided in Section 7.4.1.1 of this Guide.

Responsibilities During Building Design Development

5.1 INTRODUCTION

The CP must review appropriate drawings and supporting documents at various stages of design development to ascertain substantial compliance with the Building By-law for documents to be submitted for BP. The CP must also assist the design team through provision of Building By-law interpretations and clarifications.

The CP must be aware of the many interdisciplinary aspects of the Building By-law:

- Part 3 of Division B has several direct and indirect references to other Parts of the VBBL including Parts 4, 5, 6, 7, 9, and 10 of Division B;
- Division B, Part 3 requirements often involve several disciplines beyond architectural design, including structural, mechanical, plumbing, fire suppression, electrical, geotechnical, landscape, etc.; and
- Subsection A-2.2.7 of Division C Notes to Part 2 of the VBBL identifies the interdependency and roles of RPRs for fire and life safety systems.

The responsibility that each component design substantially complies with the Building By-law rests with the RPR for such component (i.e. the architect is responsible for architectural components such as guards and windows designed by others, structural engineer for structural components such as trusses and connections designed by others, etc.).

The CP can reasonably rely upon the RPRs for substantial Code compliance of their designs; however, the CP provides a review for "code coordination" of plans and supporting documents prepared by the RPRs to ascertain that the design substantially complies with the requirements of Part 3 of Division B.

Confirmation that the design has been coordinated by the CRP is documented by the letter of assurance Schedule A.

Confirmation that the design substantially complies with the Building By-law is documented by the series of letters of assurance Schedule B from the various RPRs.

Confirmation that the CP has undertaken "Code coordination" of the design is documented by the letter of assurance Schedule CP-1.

5.2 REVIEW OF PLANS AND SUPPORTING DOCUMENTS

5.2.1 ARCHITECTURAL

The CP must review the architectural plans and supporting documents for the following:

· Reference to the Building By-law in effect;

- General level of completeness and adequacy to provide sufficient information for *construction* and instructions as outlined in Division C, Subsections 2.2.2 and 2.2.3 of the Building By-law;
- Civic addressing and suite numbering are clearly indicated and are consistent with Subsection 1.10.1 of Division C (refer to Section 6.3.1. of this Guide);
- Detailed review to ascertain substantial compliance with Division A; Parts 1 and 3 of Division B; and Division C in the Building By-law, and review for "Code coordination" with other disciplines, including alternative solutions; and
- Energy Statements on the drawings

5.2.2 STRUCTURAL

The CP must review the structural plans and supporting documents for the following:

- Reference to the Building By-law in effect;
- General level of completeness and adequacy to provide sufficient information for *construction* and instructions as outlined in Division C, Subsections 2.2.1. and 2.2.4.;
- Review for "Code coordination" with other disciplines, including alternative solutions;
- Provision of basic design criteria for live, dead, wind, and seismic loads;
- · Reference to the geotechnical report provided, including soil bearing capacity; and
- · Criteria relative to rebar concrete cover.

5.2.3 MECHANICAL, PLUMBING AND FIRE SUPPRESSION

The CP must review the mechanical, plumbing, and fire suppression drawings and supporting documents for the following:

- · Reference to the Building By-law in effect;
- General overview as outlined in Division C, Subsections 2.2.3., 2.2.6. of Book 1 of the Building By-law and Section 2.2 of Division B of Book 2 of the Building By-law as they pertain to Part 3 of Division B:
- Review to ascertain that the appropriate design standards have been utilized (e.g., NFPA 10, 13, 13R, 14, 96, etc.);
- Review for "Code coordination" with other disciplines, including alternative solutions;
- · Review the sequence of operations of fire and life safety systems;
- Review penetrations of fire-resistance rated assemblies for the required fire dampers and fire stop systems;
- Ascertain that the standpipe hose connections are indicated and correctly located on both the plumbing/sprinkler drawings and the architectural drawings;
- The architect should confirm to the CP that the architectural backgrounds are substantially consistent with the BP set of architectural drawings;
- · Review the fire department connection location;

- Ascertain that the mechanical systems for high building requirements are incorporated into the drawings and supporting documents;
- Review that the drawings indicate fire rated duct enclosures and check that services are not indicated in exits unless they serve such exits; and
- Energy Statements on the drawings

5.2.4 ELECTRICAL

The CP must review the electrical drawings and supporting documents for the following:

- · Reference to the Building By-law in effect;
- General overview as outlined in Division C, Subsection 2.2.3 of the Building By-law, as it pertains to Part 3 of Division B;
- Review to ascertain that the appropriate design standards have been utilized (e.g. CAN/ULC-S524);
- Review for "Code coordination" with other disciplines, including alternative solutions;
- Review for placement of fire alarm devices and general design criteria (i.e. Subsections 3.2.4 and 3.2.6 of Division B);
- Review for location of exit signs for consistency with Code compliance drawings;
- Review for coordination of emergency lighting and power provisions;
- · Review the sequence of operation of fire and life safety systems;
- · Energy Statements on the drawings; and
- The architect should confirm to the CP that the architectural backgrounds are substantially consistent with the BP set of architectural drawings.

5.2.5 GEOTECHNICAL

The CP must review the geotechnical plans, geotechnical report and supporting documents for the following:

- Reference to the Building By-law in effect;
- General level of completeness and adequacy to provide sufficient information for *construction* and instructions as outlined in Division C, Article 2.2.4.6., including type and condition of the *soil* or rock, groundwater conditions, factored bearing pressures and lateral earth pressures for the design of retaining and foundation walls;
- Review for "Code coordination" with other disciplines, including alternative solutions;
- Review that the project description matches the proposed development (e.g. number of storeys and type of construction); and
- Review if soil anchors, shoring system or underpinning encroach onto neighbouring property and if the owner has the appropriate encroachment permissions in place.

5.2.6 LANDSCAPE

The CP must review the landscape drawings and supporting documents for the following:

- Reference to the Building By-law in effect;
- General level of completeness and adequacy to provide sufficient information for construction and instructions as outlined in Division C, Subsection 2.2.2 of the Building By-law;
- Review for "Code coordination" with other disciplines, including alternative solutions;
- Review firefighter access requirements, including fire access roads where applicable;
- Review for adequate clearances and paved surfaces in front of fire department connections;
- · Review for combustible components in noncombustible buildings;
- Review for green roof assemblies per Article 3.1.14.4.;
- Review climbability of planters or landscape features near guards;
- · Review exterior exit stairs and ramps, including guards and handrails; and
- Review coordination of landscape features to avoid compromising egress paths.

5.2.7 OTHER CONSULTANTS

The CP must review the other consultants' (e.g. interior design, commercial kitchen, kitchen hood fire suppression, elevator consultant, civil engineers, etc.) drawings and supporting documents for the following:

- · Reference to the Building By-law in effect;
- General overview to determine the impact on the BP application (e.g. flame spread rating of interior wall finishes); and
- Review for "Code coordination" with other disciplines, including alternative solutions.

5.2.8 ALTERNATIVE SOLUTIONS

Alternative solutions allow for flexibility in *building construction*. They provide the design team with a means to employ innovative *construction* materials and design methods in their *building projects*. Frequently, specialty RPs are called upon to prepare alternative solutions for submission to the AHJ for review and acceptance. In these instances, each alternative solution must be reviewed for code coordination and stamped by the CP prior to submission to the AHJ. The CP should identify the alternative solutions in the building code report and code compliance drawings. Refer to the <u>Guide to the Letters of Assurance</u> for further information on alternative solutions.

The CP must review an alternative solution submission for the following:

- Correct project address;
- Proper project description;
- Overall check that the requirements outlined in Subsections 2.3.1. and 2.3.2. of Division C are incorporated into the submission;
- · Correct objective and functional statements; and

• Confirm that the mitigating features of an accepted alternative solution have been incorporated into the drawings and supporting documents prepared by the RPRs.

5.2.9 CODE COMPLIANCE DRAWINGS AND BUILDING CODE REPORT

The Code compliance drawings and building code report are the primary tools that the CP must prepare in advance of the BP submission. The Code compliance drawings and building code report are also useful to the design team to aid in development of an approach to Code compliance of the *building* design.

All information on the drawings must be legible and clearly presented. The drawings must be of a sufficient size and resolution that they can be readily reviewed and printed.

The Code compliance drawings and building code report for a staged BP application must be current and must demonstrate a complete and compliant building at the time of the Stage 1 BP application. If changes are made to the architectural backgrounds or code compliance concepts for subsequent stage applications, the CP must update and resubmit their code compliance drawings and building code report to reflect the current design.

The typical Code information to be documented in the Code compliance drawings and building code report is listed below. Depending on the simplicity of the *project* some of these may not be required.

- Project address and legal description
- BP number
- DP number
- BP Data Sheet
- Occupancy classification(s)
- Firewalls
- Classification for Subsection 3.2.2 of Division B
- Spatial separation analysis
- Fire department access route location(s), fire department response point(s)
- Fire separations (clearly distinguishable and including a legend)
- Fire-resistance ratings (clearly distinguishable and including a legend)
- · Occupant loads
- Exits
- Exit capacity
- Exit remoteness
- Exit exposure
- Travel distance
- Fire department connections
- Standpipe connections

- Compliance with Subsection(s) 3.2.6 and/or 3.2.8 including identification of additional mechanical and electrical provisions
- Accessibility
- Washroom fixture analysis
- List of proposed alternative solutions and fallback solutions (i.e. Code-compliant and viable design solutions to be used in the event that alternative solutions are not accepted by the AHJ)
- Identification on the plans of the location where alternative solutions apply

In addition to this information, it is beneficial if any "contentious" Code issues that require discussion are clearly identified on the code compliance drawings and in the building code report. This will aid in resolution of problem areas in a timely fashion.

The Code Compliance Drawings and Report must be sufficiently detailed such that compliance of the project with the Building By-law is clearly demonstrated. The report must:

- · be specific to the project,
- analyze how the Building By-law requirements are being met,
- contain more than a simple reiteration of the requirements of the Building By-law,
- · not include Building By-law references that don't apply to the project, and
- in accordance with the Professional Governance Act, Section 57, clearly distinguish between facts, assumptions, and opinions.

6. Responsibilities of the CP During the Building Permit Application Stage

6.1 INTRODUCTION

It is the responsibility of the CP to take a lead role in collecting all of the required BP submission documents and amalgamating them into a complete BP submission package. The CP will review the BP submission documents prior to making the BP application.

6.2 PERMIT APPLICATION PROCEDURE

The CP BP process is outlined in the <u>CP process flow chart</u>. CP applications must be made online via the City's permitting system (POSSE). Refer to the <u>CP Building Permit Online Application Guide</u> for detailed instructions on how to access and use the system.

The CP and the City's BP processing staff together are responsible for identifying the *project*-specific required clearances.

BRB staff are responsible for an overall cursory examination of the Code compliance drawings and building code report, the completeness of the submitted documentation, the verification of the required departmental clearances, the issuance of the BP and associated documentation, and the ultimate clearance at the final design drawing stage.

6.3 DOCUMENTATION SUBMISSION REQUIREMENTS

The CP must make the BP application on the <u>Certified Professional Building Permit Application</u> Form. All related drawings and documents submitted for the CP BP application are required to bear the stamp of the CP as outlined in Section 4.3. The submission requirements are outlined in the <u>Certified Professional Program – Building Permit Application Submission List</u>.

The Building Permit Application Submission List only lists the BP submission documents that are required by the BRB. There are additional documents that must be submitted as part of the BP application to other City departments.

6.3.1 ADDRESSING DRAWINGS

The CP must coordinate the civic addressing and suite numbering with the architect and the assigned BRB staff as described in Subsection 1.10.1 of Division C.

The architect must prepare Addressing Drawings and the CP must review such drawings to confirm the following features prior to submitting to the City as part of the initial BP application:

• Label suites with civic addresses (number and street name) or unit numbers and approved uses (per DP).

- Shell spaces must have a suite number; "future" suite numbers to be assigned for each door from the street or corridor (suite numbers are "activated" when the demising walls are constructed).
- Suites on upper floors are sequentially numbered clockwise from the elevator. The first suite to the left of the elevator door opening is the "01" suite.
- Suites on the ground floor are numbered clockwise from the point of entry (e.g. the principal entrance door).
- Development *permit* quality drawings are acceptable.
- Must be labelled "Issued for Addressing Review".
- Must not be labelled "Draft" or "Not For Construction".
- Addressing plans to include site/landscaping plan, all floor plans including underground parkade and roof plan, and building elevations.
- Addressing plans do not have to be signed and sealed by the architect but do require a CP stamp.

The assigned BRB staff will open the Addressing review group in POSSE.

Drawings are reviewed by the Addressing Coordinator and address/suite notification is sent to CP and outside agencies.

The City will file the Addressing Plans against the address to be used for future file research for enquiries, Tl/alteration permits and business licenses.

6.3.2 DCCs AND DCLS

Development Cost Charges (DCCs) and Development Cost Levies (DCLs) are fees payable by property developers based on the square footage of new construction and building additions. DCLs contribute to City facilities such as parks, childcare facilities, social and non-profit housing, and engineering infrastructure. DCCs are collected by municipalities on behalf of both Metro Vancouver and Translink and fund regional wastewater and transportation infrastructure.

- Information on DCLs can be found at https://vancouver.ca/home-property-development/development-cost-levies.aspx.
- Information on Metro Vancouver DCCs can be found at http://www.metrovancouver.org/services/liquid-waste/drainage/development-cost-charges/Pages/default.aspx.
- Information on Translink DCCs can be found at https://www.translink.ca/about-us/about-translink/taxes-and-charges/development-cost-charges.

Applicable DCCs and DCLs must be paid prior to issuance of any BP. They are due in full prior to Stage 1 issuance on a staged CP permit.

The DCLs are calculated based on the DP drawings by Development Review Branch staff. The DCCs are calculated based on the BP drawings. For CP projects, the <u>DCC worksheet</u> is submitted by the CP, but can be completed by the architect or CRP.

6.3.3 STAGED BUILDING PERMITS

In order to expedite the BP process, the City may issue a staged BP. The City is prepared to authorize up to three stages. Typical stages include excavation and shoring; foundation to grade; and remainder of the work. Due to the complexity of some *projects*, additional stages may be authorized by the AHJ. The CP and BRB staff should determine the number of stages prior to the issuance of the initial BP. Note that "full structure" stages are not permitted due to their timing impact on related trades permits – typically trades contractors wish to mobilize on site shortly following the construction of the structure; however, trade permits, particularly sprinkler system permits, are highly dependent on coordination with the reviewed and issued architectural BP drawings, which are not submitted with a "full structure" stage.

For staged *permit* applications the CP will need to complete and submit to the City the <u>Certified Professional Program – Authorized Staged Construction Form and <u>Certified Professional Program – Authorized Staged Construction Drawing List</u>, and either the <u>Certified Professional Program – Development Permit Confirmation Letter or Certified Professional Program – Development Permit Confirmation of Changes Letter, as applicable, for each stage.</u></u>

For staged *permit* applications, the drawing and document submission for each stage must be able to stand alone as a complete package. Each stage must be accompanied by a separate Authorized Staged Construction Form. The CP and BRB staff will jointly confirm the submission requirements at the Code compliance meeting.

6.4 BP ISSUANCE PRIOR TO DP ISSUANCE

The following guidelines are in place to address situations where it is desired to commence construction prior to issuance of the related DP for the project. It should be noted that projects that proceed in this fashion proceed entirely at the owner's risk.

6.4.1 EXCAVATION AND SHORING

As permitted by an amendment to the Zoning & Development By-law (<u>By-law No.13123</u>), BP applications submitted via the CP Program will be considered for issuance of Stage 1 (excavation and shoring only) in advance of DP issuance in the following circumstances and subject to the following:

- · As recommended by the Director of Planning
- The development must include one of the following uses: Cultural and Recreational Uses, limited to Artist Studio, Community Centre or Neighbourhood House, Library, Museum or Archives, and Park or Playground; Dwelling Uses, developed as Social Housing or Secured Market Rental Housing; Institutional Uses; or any other use which the Director of Planning reasonably considers to be similar to the foregoing.
- No existing residential rental units on-site prior to excavation.
- The "prior to permit issuance" letter has been issued for the DP, and substantial progress has been made by the design team in satisfying the "prior-to" conditions.
- All conditions of BP issuance must be met (all review groups cleared, all fees paid, etc.).

• BP conditions are as follows: "This building permit has been issued without the issuance of a related development permit. Work authorized under the first stage of this building permit is limited to excavation and shoring work only. The City will not authorize any subsequent stage under this building permit until the development permit for this project has been issued. All work authorized under this staged building permit is at full risk to the owner. Should the development permit for this project not be issued, then the owner is responsible to return the building site back to its original condition prior to the excavation. Should the approved development permit require changes to the design of the project, then the owner will be responsible to revise the building permit drawings to reflect the design changes required under the development permit."

Note:

- DCCs and DCLs are required to be paid in full prior to BP issuance (first stage).
- A letter of credit (LOC) and Section 219 covenant on the property title may be required prior to issuance of an excavation *permit*. The value of the LOC is based on the cost to backfill the excavation in the event that the DP is not issued.
- The <u>Development Permit Confirmation Letter</u> may be annotated to read "the drawings submitted... substantially comply with the Development Permit drawings as submitted" rather than "as issued". The <u>Development Permit Confirmation of Changes Letter</u> will not be accepted.

7. Responsibilities of the CP during the Building Construction Stage

7.1 INTRODUCTION

Issuance of the BP is typically followed by immediate commencement of *construction*. At this time, the CP's role transitions from monitoring the design process to monitoring the *construction* process. The CP continues to be the primary liaison between the design team and the AHJ in the resolution of Code compliance issues.

The CP's responsibilities during the *construction* stage include the following:

- The CP and CRP will schedule an initial site meeting with all consultants and prime contractors to clarify each party's roles and responsibilities.
- Prior to construction the CP will establish with the District Building Inspector (DBI) a protocol
 of anticipated joint field reviews leading up to the City Demonstration [refer to Subsection 8.2.3
 of this Guide].
- Field review reports from all consultants shall be forwarded to the CP and CRP so that both
 the CP and CRP can monitor the field reviews by the consultants to determine if any Coderelated issues arise.
- The CP and CRP will prepare and submit monthly summary reports of the project construction
 progress to the AHJ. These reports will identify any major Code-related issues that have
 arisen during construction.
- The CP has an ongoing obligation to consult with the AHJ on any unresolved By-law issues or interpretation variances, as outlined in Schedule CP-1.

7.2 TRADE PERMITS

The CP shall confirm with the *contractor* that all electrical, sprinkler, plumbing, gas, and mechanical trade *permits* are obtained prior to the applicable trade commencing work. The CP shall review the electrical, plumbing and fire suppression drawings that are submitted for trade *permits* to determine if there are any variations from the BP set of drawings that would conflict with the original design intent or the accepted alternative solutions.

The CP must advise the *contractor* that prior to submitting any drawings to the AHJ for trade *permits*, the drawings must be sent to the CP for review and for application of the CP stamp.

7.3 CONSTRUCTION SAFETY

Construction safety is the responsibility of the *contractor* and their *construction safety officer*. The CP should not assume responsibility for, nor give instructions with respect to, worksite safety.

The CP's responsibility with respect to Part 8 of the Code (Safety Measures at Construction and Demolition Sites) is limited to ascertaining that the *construction safety officer* and *construction safety plan* are in place where required. Since CPs are generally not involved in demolition permits, the CP's responsibility for Part 8 does not include demolition.

Notwithstanding the above, as registered professionals, CPs are bound by either the AIBC Code of Ethics and Professional Conduct or Engineers and Geoscientists BC Code of Ethics and must report any risk of significant harm to the environment or to the health and safety of the public.

7.4 FIELD REVIEWS DURING CONSTRUCTION CONDUCTED BY THE RPRs

The responsibility for ascertaining that the *construction* substantially complies with their plans and supporting documents rests with each RPR for their relevant *project* components.

The responsibility for constructing the *project* in accordance with the contract documents rests with the *contractors*. The final design drawings that are submitted to the AHJ will reflect the contents of the contract documents.

The CP will submit final design drawings to the AHJ for their records prior to issuance of the occupancy permit.

7.4.1 SITE REVIEWS DURING CONSTRUCTION CONDUCTED BY THE CP

The responsibility of the CP during *construction* is to provide "Code coordination" of the *field* reviews that are performed by the RPRs. Furthermore the CP provides their own site reviews to supplement the *field reviews* that are provided by the RPRs, as a secondary check and balance to ascertain that the *construction* substantially complies with Division A; Parts 1 and 3 of Division B; and Division C of the VBBL. The CP's site reviews are undertaken in lieu of the inspections by the DBIs.

The CP's site review is an overview of the Division B, Parts 1 and 3 requirements, whereas the RPRs provide a detailed technical review of components in their particular disciplines. Each RPR is required to keep a record of each *field review* performed and of any corrective action taken as a result of the *field review* (see Building By-law Sentence 2.2.7.3.(2) of Division C).

The difference in the scope of site review by a CP and a *field review* by an RPR is illustrated in the following examples:

- The CP reviews guards relative to location, height, and climbability in conjunction with the
 architect; the architect (RPR), in conjunction with the structural engineer or specialty engineer,
 reviews guards for installation and structural capacity; and the architect (RPR) reviews exterior
 guard installation details relative to technical *building* envelope details.
- The CP, in conjunction with the architect (RPR), reviews fire separations (e.g. shaft walls, party walls, public corridors, etc.) and closures (e.g. fire doors, shutters, glass, *fire stops* etc.).

The CP takes a lead role in the coordination of the functional testing of the fire and life safety systems in cooperation with the CRP (refer to Schedule A for the role of the CRP).

Confirmation that the *field reviews* and the functional testing of the fire and life safety systems have been coordinated by the CP and CRP is documented by the letters of assurance Schedules CP-2 and C-A.

Confirmation that the *field reviews* have been undertaken to ascertain that the *construction* substantially complies with the Building By-law and supporting documents is documented by the series of letters of assurance Schedules C-B from the various RPRs.

Confirmation that the CP has undertaken "Code coordination" of *field reviews* by the *registered professionals* is documented by the letter of assurance Schedule CP-2.

7.4.1.1 Extent to Which CP Site Reviews May be Delegated

When the CP Program was originally developed in the early 1980s, it was envisioned that the CP would be personally conducting the critical Code-related site reviews on the *project* plus personally monitoring *field reviews* by other *registered professionals* of record. As the business aspect of the CP services has developed, it has changed so that some site reviews are being undertaken by non-CPs under the direct supervision of the CP. Although this procedure may be acceptable, the following guidelines outline the extent to which non-CPs can conduct site reviews:

- It is expected that the CP or their delegate will be present on site a minimum of once per month and will prepare a monthly summary progress report during *construction* of the *project*;
- Notwithstanding the minimum requirement, the CP or their delegate is required to provide additional site reviews depending on the stage and complexity of *construction*;
- The CP is expected to have an overall knowledge of the Code-related site reviews conducted by their staff;
- It is expected that the CP will be made aware of any changes, deviations, etc. by their delegate;
- The CP will make arrangements to meet with the DBI at the *project* site on a regular basis at critical times during *construction* (e.g. first storey framing, first stair handrail, etc.). The frequency of such site meetings will be determined by the CP and the DBI based on the complexity of the *project* and the type of activities that are underway, and

A CP can assign site review activities to others, but cannot delegate their ultimate responsibility for the obligations described in Schedule CP-1.

Specific scenarios regarding performance of site reviews by others are outlined in the following sections.

7.4.1.2 Performance of CP Detailed Site Reviews by other CPs

The CP may assign site reviews to another CP within the same firm. Site reviews by CPs from a different firm will only be permitted under special circumstances (e.g. holidays or illness of the CP of Record). The CP of Record shall inform the substitute CP of any special design characteristics of the *project*. The CP of Record shall maintain overall knowledge of the site review status. The CP of Record will notify the AHJ prior to any assignment of CP site review responsibilities to other CPs. See Section 4.5.

7.4.1.3 Performance of CP Detailed Site Reviews by Non-CPs

Many architectural and engineering firms have non-CP staff members who routinely conduct site reviews on *projects*. If a CP intends to delegate any site review to a non-CP, the CP must be confident the reviewer is knowledgeable and experienced in the particular aspects of the *building* components that are to be reviewed. The CP is required to meet the standard of Direct

Supervision as defined by Engineers and Geoscientists of BC or AIBC, as applicable. The CP must not delegate site reviews to non-CPs outside their firm.

7.4.2 FIELD REVIEWS CONDUCTED BY RPRs

Each RPR is expected to conduct *field reviews* of the *building* components for which they are responsible as outlined in the submitted Schedule B. The *field reviews* by each RPR are an integral part of the *field review* process and are independent of the site review responsibilities of the CP.

The RPRs are expected to conduct their *field reviews* prior to the site review by the CP or their delegate.

The CP can reasonably rely upon the RPRs to ascertain that the technical aspects of their designs have been constructed in substantial conformance with their plans and supporting documents.

7.4.3 CP'S MONITORING OF FIELD REVIEWS UNDERTAKEN BY THE PROJECT TEAM

Prior to *construction* the CP and CRP shall establish a process for monitoring the submission of *field review* reports. This includes having the RPRs provide a written *field review* report of each *field review* and transmitting this report to both the CRP and the CP immediately after such *field review*. The RPRs must identify any substantial Part 3 non-compliance issues to the CP in their reports. The CP will review these reports and monitor – or initiate as necessary – any corrective action necessary to address such Part 3 Code-related issues. Should corrective action not be followed through, the CP will notify the AHJ for appropriate action. If necessary, the CP may have to recommend to the AHJ that a stop work order be placed on the *project*.

The CP's <u>monthly progress reports</u> to the AHJ must be submitted to the DBI promptly, in each month between permit issuance and final occupancy, and will include the following details:

- Project name, address, and BP number;
- · Date of monthly report;
- Detailed description of the job progress to date;
- Detailed listing of shop drawings that have been reviewed by the CP for the month;
- Listing of any critical Code issues that were identified for the month;
- · Listing of any change to the design that warrants a minor amendment to the DP or BP; and
- Status of minor amendments to the DP and revisions to the BP (if applicable).

Monthly progress reports must be submitted each month between permit issuance and final occupancy, including months when there is no activity on site. When there has been no activity on site, the report must state this and provide an estimated date of resumption of work, confirmation that the site has been left in a safe and secure condition, and indicate any concerns with the situation.

The CP can reasonably rely upon the expertise of the other RPRs on the *project* to conduct the appropriate *field reviews* for *construction* elements related to Parts 4, 5, 6, 7, and 10 of Division B. If, in the opinion of the CP, the *field review* reports provided by the other RPRs seem to be insufficient or inappropriate for the particular stage of *construction*, the CP shall review these

concerns with the CRP and the RPR in question. In the event that a satisfactory resolution is not forthcoming, the CP shall notify both the *owner* and the AHJ.

The frequency of *field reviews* by the RPRs and site reviews by the CPs is entirely at the discretion of each individual RPR and CP and can vary from *project* to *project* to address various factors:

- Level and nature of risk, complexity, unknown conditions and duration of the construction;
- Standard of practice for the type and nature of work to be reviewed;
- Detail of architectural and engineering documentation prepared for the project;
- Experience, reputation and method of selection (e.g. public tender, pre-qualified bidders or negotiated) of those constructing the *project* (i.e. builders); and
- Number of deficiencies found early in the project.

Table 1: Sample Field Review Components

PROJECT COMPONENT	APPLICABLE RPR (FIELD REVIEW)	CP (SITE REVIEW)		
Excavation & shoring		For the purposes of preparing the monthly report		
Dampproofing	Primary responsibility	N/A		
Drain tile		N/A		
Plumbing site servicing		N/A		
Electrical site servicing		N/A		
Backfill		N/A		
Structural (prior to each pour)		For the purposes of preparing the monthly report		
Interior walls and closures		Code coordination per Schedule CP-1		
Rough in plumbing		Code coordination per Schedule CP-1		
Rough in sprinklers		Code coordination per Schedule CP-1		
Rough in mechanical		Code coordination per Schedule CP-1		
Rough in electrical		Code coordination per Schedule CP-1		
Exterior wall system		Code coordination per Schedule CP-1		
Firestopping of penetrations		Code coordination per Schedule CP-1		
Insulation		Code coordination per Schedule CP-1		
Drywalling		Code coordination per Schedule CP-1		
Finish plumbing		For the purposes of preparing the monthly report		
Finish mechanical		For the purposes of preparing the monthly report		
Finish electrical		For the purposes of preparing the monthly report		
Architectural finishes/millwork		Code coordination per Schedule CP-1		
Commissioning		Code coordination per Schedule CP-1		
Consultant demonstration	Supporting role	Primary responsibility		
City demonstration	Supporting role	Primary responsibility		

Notes:

- 1. The role of the CRP is not reflected in this table; refer to 3.3 for further details.
- 2. Refer to 4.2.1 for a discussion of Parts 4, 5, 6, 7, and 10.
- 3. Refer to 7.4.1.1 for an explanation of when CP site reviews can be delegated.

Table 1 is provided as a sample guide for *field reviews* by the RPRs and site reviews by the CP. Each *project* is unique and may warrant variation from this sample guide. It is at the discretion of each RPR and each CP to determine the appropriate frequency of *field reviews* and site reviews to suit the unique circumstances of each *project*.

7.5 REVIEW OF SHOP DRAWINGS

The CRP has overall control over the distribution of shop drawings. The CP will identify to the CRP which shop drawings they want to review. The CRP should keep the CP informed as to the status of shop drawings in the event that the CP considers it necessary to review certain shop drawings that were not included in their original list. The CP will review the relevant shop drawings with respect to Division A, Division B Parts 1 and 3, and Division C requirements. Note that all shop drawings submitted to the AHJ for trade permit application or final design drawing submission must include the CP's stamp.

Table 2 provides a sample list of shop drawings and related documents that can be used as a guide to identify roles and responsibilities of the various participants (as applicable to the *project*, including alternative solutions).

Table 2: Sample Review of Shop Drawings

	RPR	CRP	СР	REMARKS (VBBL reference #s)
ARCHITECTURAL				
Exterior cladding systems	Х	Х	Х	3.1.5., 3.2.3.
Windows	X	X	X	3.2.3., 3.3.1.19.
Fire shutters	X	X	X	3.1.8.
Fire doors and frames	X	X	X	3.1.8.
Hardware	X	X	X	3.1.8., 3.4.6.16.
Elevators	X	X	X	3.2.6., 3.5.2.1., 3.8.3.19., 3.5.4.1.
Escalators	X	X		
Architectural finishes	X	X	X	3.1.13.2., 3.4.4.2.(2)
Millwork	X	X		
Handrails/guards	X	X	X	3.3 and 3.4
Firestopping	X	X	X	
Fire and sound separation assemblies	X	X	X	At discretion of CP
Interior signage	X	X	X	
STRUCTURAL				
Structural steel	Х	Х		
Manufactured wood products	X		X	For ULC listed assemblies
Roof trusses	X	X		
Precast concrete	X	X		
Concrete mix designs	X			
Concrete test reports	X			
Unbonded post tensioned slabs	X			

	RPR	CRP	СР	REMARKS (VBBL reference #s)
MECHANICAL				
HVAC equipment Hot water tanks Boilers and furnaces Fire dampers Grilles & diffusers Balancing reports	X X X X X	X X X X X		
FIRE SUPPRESSION				
Sprinklers Hydraulic calculations Firestopping service penetrations Structural capacity	X X X	X X X	X X X	Appropriate system design, etc. Stamp only
PLUMBING				
Plumbing fixtures Plumbing equipment Backflow prevention devices Pumps Firestopping service penetrations Structural capacity	X X X X X	X X X	X X X	Appropriate system design, etc. Stamp only
ELECTRICAL				
Fire alarm system Fire alarm graphic annunciator Exit signs Lighting fixtures Emergency lighting Emergency generator Electric heating Firestopping service penetrations Structural capacity	X X X X X X X	X X X X X X	X X	3.2.4. and 3.2.6. Coordinate with fire department

7.5.1 REVIEW OF SPRINKLER AND STANDPIPE SHOP DRAWINGS

The CP's review of sprinkler shop drawings will include the following:

- General completeness of the drawings
- Verify the applicable building code and reference design standards
- Confirmation from the architect RPR, as evidenced by the architect RPR's shop drawing review stamp, that the architectural backgrounds are correct and are consistent with the accepted BP drawings
- Location and number of fire department connections and fire hydrants

- Location of Class I standpipe hose connections
- Provision of a fire pump where required
- Sprinkler zones are consistent with Article 3.2.4.8.
- Close spaced sprinklers for parkade assault security glazing per Article 3.3.7.7.
- Dedicated water curtain sprinklers for exit exposure protection per Sentence 3.2.3.13.(5)
- The use of combustible sprinkler piping only as permitted by Article 3.2.5.13.
- Correct references to alternative solutions where they impact the sprinkler or standpipe design
- Review that mitigating features of alternative solutions that impact the sprinkler or standpipe
 design have been incorporated. This applies when the CP is the author and responsible RP
 of the alternative solution as well as when there is a separate RP taking responsibility for the
 alternative solution.
- The sprinkler shop drawings must bear the shop drawing review stamp of the RP who is taking responsibility for the alternative solution.

7.6 CHANGES DURING CONSTRUCTION

The CRP must coordinate design changes during *construction* with the RPRs, and advise the CP to review for Code issues and implications. The CRP must confirm whether the changes are sufficiently significant that DP minor amendments and/or BP revisions are required, as described below. If BP revisions are required, the CRP must collect the appropriate documents from the RPRs and submit to the CP for submission to the City. Delay in obtaining required DP minor amendments and/or BP revisions may result in a stop work order until the issues are resolved.

It is recognized that changes can and do occur during *construction*. Changes can be of varying significance with respect to the Code and/or the issued DP. The CP, in consultation with the CRP, must determine whether a change warrants further discussion with the BRB. Minor design/*construction* changes need only be identified on the final design drawings. Major design/*construction* changes will require consultation with the BRB prior to proceeding and may lead to a BP revision, request for acceptance of an alternative solution, and/or a required DP amendment. *Construction* and/or *occupancy* may be delayed where these issues are not identified and dealt with at the appropriate stage.

For guidance, the following is a list of items that might be considered major design/construction changes. This list is not a comprehensive list of items that could trigger a DP Minor Amendment or BP Revision. The CP should review with the DBI and the BRB regarding questionable project changes.

- · Permitted use or major occupancy;
- Building exterior (e.g. doors, windows, siding, rooftop units, venting, change in overall building form or dimensions including height);
- Substantial interior re-configuration of a suite;
- Floor area (e.g. mezzanine, loft, storage rooms, additional floors, enclosing balconies);

- On-site parking, loading and bicycles configuration, dimensions and vertical clearances (e.g. parking added or deleted, layout changes);
- Number and address of dwelling units or tenancies;
- Reconfiguration of suites such as amalgamating or subdividing CRUs;
- · Changes to exit and egress systems;
- Modifications to the excavation and shoring design;
- Substantial landscape changes that could affect firefighting access, street trees or DP conditions:
- · Change to firefighting access;
- Revision to alternative solutions and additional alternative solutions.

7.7 PUBLIC ACCESS TO DISPLAY SUITE(S) AND SALES CENTRE WITHIN A BUILDING UNDER CONSTRUCTION

An *owner* may require access by the public to a *building* that is under *construction* in order to view a display suite(s) or sales centre within the *building*. A separate BP is not required in this situation. The CP and the *owner* will coordinate the safety provisions with the *contractor* and the DBI. The *contractor* is to implement and enforce the necessary safety procedures required to allow access by the public.

Not all of the fire and life safety systems are required to be completed. However, the following safety principles are applicable to a display suite(s) or sales centre within a *building* under *construction*:

- Provide safe access to and egress from the proposed display area(s) (e.g. handrails, guards, etc.), including access for persons with disabilities on ground floor suites (if the display suite(s) or sales centre is located above the ground floor the CP will discuss with the DBI the appropriate level of accessibility);
- Provide overhead protection if access to or egress from the proposed display area(s) is beneath or adjacent to overhead *construction* activities;
- Provide hoarding or similar physical protection to access the display area(s) and to separate and secure the display area(s) from the *construction* zones;
- Provide "Construction Zone Do Not Enter" signage to separate the display area(s) from the construction zones;
- Provide temporary emergency lighting and temporary signage (including exit signage)within the display area(s) providing access and egress for the public; and
- Post a graphic plan within the display suite(s) or sales centre to indicate the egress route(s).

8. Responsibilities of the CP during the Building Occupancy Stage

8.1 INTRODUCTION

The *construction* process invariably gives way to the *occupancy* process. Any new *construction* or a change of use requires a new *occupancy permit*. In addition, the issuing of this *permit* shall not relieve the *owner* or occupier from the responsibility of complying with the Zoning and Development By-law or any other pertinent By-laws, Acts or Regulations. This *permit* is not a representation or warranty that the By-laws of the City of Vancouver or other enactments have been complied with, since resources at the City only permit random review and inspection. The City of Vancouver will accept no responsibility or legal liability should any person suffer loss, injury or damage as a result of the *building* not complying with By-laws. Accordingly, persons should make such independent investigations or inquiries as they see fit to determine whether the *building* complies with all relevant By-laws or enactments.

The purpose of this section is to provide guidelines for the preparation and submission of supporting documents to the City for the *occupancy permit* under the *Certified Professional* Program.

There are various types of occupancy permits available:

- Base building shell occupancy permit (e.g. non-residential buildings where Tis are not part of the base BP);
- Occupancy permit for a portion of the building that is complete and base building shell
 occupancy permit for the unfinished portion (e.g. residential tower where penthouse units are
 not completed, or mixed-use building where lower floor(s) commercial units are not
 completed);
- Occupancy permit for a portion of the building that is complete without shell occupancy for the
 remainder (e.g. major complex with multiple occupancy components, one or more of which
 may be occupied safely while work continues on the balance of the building refer to Section
 8.6 and Attachment 1, Guideline for the Occupancy of Partially Completed Buildings;
- Occupancy permit with Work Required (e.g. safe to occupy with minor Building By-law work still required, refer to Section 8.4); and
- Occupancy permit when the entire building is safe to occupy and substantially complete (e.g. all required Building By-law work is complete).

8.2 FUNDAMENTAL PRINCIPLES AND MECHANISMS FOR OBTAINING AN OCCUPANCY PERMIT

The CP takes the lead role, in cooperation with the CRP, for the "Code coordination" aspects of the *occupancy permit* procedures including the coordination of the functional testing of the fire and

life safety systems per letter of assurance Schedule A. Note that compliance with the CAN/ULC S1001 is the responsibility of the CRP and RPRs and is not the responsibility of the CP, other than to confirm that is has been completed.

RPRs must only release their letters of assurance when all elements are substantially complete. Both Engineers and Geoscientists BC and AIBC have strict policies that a RPR must not issue their letter of assurance (Schedule C-A, C-B or C-D) until the defined portion of the *project* as described in the *occupancy permit* application is substantially complete.

The CP must not request the City Coordinated Fire and Life Safety Systems Demonstration (City Demonstration) until the Consultant Coordinated Fire and Life Safety Demonstration (Consultant Demonstration) has been satisfactorily completed as described in Article A-2.2.7.3. of Division C – Notes to Part 2 in the Building By-law.

All applicable Schedules C-B and C-D must be completed by the RPRs and collected and initialled by the CRP. The CP must not release a Schedule CP-2 until receipt of the Schedule C-A from the CRP plus all the Schedules C-B and C-D from the RPRs.

Minor construction deficiencies are common on all construction projects. Where accepted by the CBO, an "Occupancy Permit with Work Required" can be issued to cover minor work. The CP must confirm in writing to the CBO once all "Work Required" has been substantially completed. [Refer to Section 8.4 on outstanding non-life safety issues.]

Under the CP Program, the mechanism for obtaining an *occupancy permit* has been altered from the method described in Subsection A-2.2.7. of Division C – Notes to Part 2 in the VBBL in order to reduce the pressure on RPRs to release their Schedule C-B prematurely. This alternate method includes eight steps as follows:

- 1. Occupancy coordination In advance of the intended date of completion, the CP will coordinate the activities required for occupancy in consultation with the CRP and contractor. Where completion of the building will occur in more than one occupancy phase (i.e. only a portion of the building is safe to occupy and substantially complete), the CP will prepare a project-specific occupancy protocol for the partially-completed building that identifies the portion of the building that will be occupied, describes the level of completion in incomplete areas, temporary safety measures, and the coordination of construction activity and building occupant and public safety measures to be provided. The CP will submit the project-specific occupancy protocol to the District Building Inspector for their review prior to the City Demonstration. [See Section 8.6 and Attachment 1.]
- 2. Test Protocol the CP prepares and submits to the DBI a project-specific test protocol that will be used for the functional testing of the fire and life safety systems.
- 3. Consultant Demonstration trade contractors demonstrate to the CP, CRP and RPRs that the fire and life safety systems are functional and operational as designed.
- 4. City Demonstration CP coordinates the CRP, RPRs and trade contractors in demonstrating to the City representatives (i.e., District Building/Plumbing/Sprinkler/Gas/Electrical Inspectors, and Fire Prevention Officer) that the fire and life safety systems are functional and operational as designed.
- 5. Consultant Final the CP, CRP and RPRs conduct final field reviews and prepare deficiency lists. The trade contractors complete the work identified in the deficiency lists. The contractors responsible for the applicable trade permits must obtain final clearance cards

- from the applicable City Trade Inspectors (i.e., plumbing, sprinkler, gas, and electrical) and submit a copy to the CP.
- 6. Prior to Final City Clearance, the CP is required to submit all applicable *occupancy permit* submission documents.
- 7. Final City Clearance the CP will undertake a final review with the DBI. The CP will confirm with the Occupancy Clerk that other City Departments and Government agencies (e.g., Ministry of Environment, Ministry of Highways, BC Safety Authority, Vancouver Coastal Health Authority, etc.) have provided their final clearance, as appropriate.
- 8. Once all Departments have cleared, the City will issue the occupancy permit.

Steps 3, 4, 5 and 6 can happen simultaneously. The above steps form an overview of the *occupancy permit* procedures. Refer to Attachment 2, Occupancy Procedure for Certified Professional Projects, for a full description of the procedures.

8.2.1 TEST PROTOCOL

The CP will deliver to the DBI a *project*-specific test protocol for the functional testing of the fire and life safety systems. The CP will submit this test protocol to the DBI 48 hours prior to the City Demonstration.

The test protocol will include the following features:

- · Date and time for the Consultant Demonstration
- Required attendees for the Consultant Demonstration
- Required status of completion of the fire and life safety systems
- · Required equipment for the functional testing
- Description of the intended operation of the fire and life safety systems
- · Required equipment for the functional testing
- Description of preliminary set up for the functional test
- · Description of the procedure for the functional test
- Description of the expected integration and operation of the various fire and life safety systems (fire alarm sequence, fire alarm matrix, mechanical fan operation, etc.)

Note that for a high *building* with scissor stairs, the test protocol must include a smoke test of the scissor stairs to demonstrate that the smoke does not leak between the adjacent stair shafts. This test should be completed prior to the City Demonstration. The DBI should attend this test.

8.2.2 CONSULTANT DEMONSTRATION

The CP, in conjunction with the CRP, shall coordinate and conduct a Consultant Demonstration of the functional testing of the fire and life safety systems in accordance with the established *project*-specific test protocol. The trade *contractors* are to fully demonstrate to the Consultants that the fire and life safety systems are functionally integrated and perform as required by the applicable By-laws, Codes and standards. The CP will prepare a detailed report of the results of the Consultant Demonstration. Any deficiencies identified in the Consultant Demonstration of the fire and life safety systems shall be corrected and retested prior to the City Demonstration. Upon

satisfactory completion of the Consultant Demonstration, the CP will request the City Demonstration.

8.2.3 CITY DEMONSTRATION

The CP should submit an *occupancy permit* application to the Occupancy Clerk at least three weeks prior to the City Demonstration. The CP shall contact the DBI one week prior to the scheduled date for the City Demonstration so the DBI can notify the appropriate city staff to attend the Coordinated City Final Demonstration.

The CP, in conjunction with the CRP, shall coordinate and conduct the City Demonstration of the functional testing of the fire and life safety systems based on the test protocol that was previously submitted to the City. The DBI may request an additional test of any part of the fire and life safety systems to demonstrate the operation of such systems. The CP will prepare a detailed report of the results of the City Demonstration.

Any deficiencies identified in the City Demonstration of the fire and life safety systems shall be corrected and retested in the presence of the appropriate RPs. Once all deficiencies have been corrected, the CP will coordinate a subsequent demonstration to the appropriate City Officials.

8.2.4 CONSULTANT FINAL FIELD REVIEW

Irrespective of the timing of the City Demonstration, when a *project* is nearing completion, the CP will conduct site reviews and the RPRs will conduct *field reviews* of the *building* components that are within their scope of responsibility. Each RPR will prepare a deficiency list (both Building Bylaw and non-Building By-law requirements) for the components within their particular discipline and submit to the CP and CRP for their records. The CP will prepare a deficiency list that focuses on the fire and life safety components that must be corrected.

Once all of the deficiencies have been corrected to substantially comply in all material respects with the Building By-law and other applicable enactments respecting safety (not including construction safety aspects), the CP will collect all of the occupancy permit submission documents from the CRP and schedule a City Final Review.

Under special circumstances, minor *building* envelope deficiencies can be outstanding provided that the *owner* provides sufficient security to complete the deficiencies.

There may be other deficiencies, such as landscaping and off-street parking, which can be completed within specified time frames as detailed on the issued development *permit*.

8.2.5 CITY FINAL OCCUPANCY REVIEWS

The CP will make arrangements, either directly or through the *contractor*, for the Property Use Inspector to attend the site to review compliance with the development *permit* for parking, bicycle parking and landscaping.

The CP will conduct a City Final Occupancy Review with the DBI to review the completion of Building By-law requirements in relation to the accepted BP documentation.

The CP will review the documentation with the DBI with respect to the remedy of any deficiencies that were identified during the City Demonstration.

The CP will prepare a report of such City Final Occupancy Review, including a list of outstanding Building By-law related deficiencies, if any.

The trade *contractors*, being the trade *permit* holders, must arrange for a final review with the appropriate City Inspector or Provincial safety authority and obtain the final clearance forms (signoff cards) from the City or Provincial safety authorities for electrical, plumbing, sprinkler and standpipe systems, gas, elevators, etc.

The CP will confirm with the City's Occupancy Clerk that all relevant City Departments and Government agencies (e.g., Ministry of Environment, Ministry of Highways, BC Safety Authority, Vancouver Coastal Health Authority, etc.) have provided their final clearance, as appropriate.

8.3 OCCUPANCY SUBMISSION DOCUMENTATION

Refer to the Occupancy Permit Submission Documents Checklist for the occupancy documents to be collected by the CP for submission to the City.

Note that the timing of the submission of documents to the City varies according to the *occupancy permit* submission list. The purpose of submitting certain documents early is to allow the City Departments sufficient time to complete their reviews. Timely submission of documents is critical in order to achieve the anticipated *occupancy* date.

Also note that *occupancy permit* submission list identifies certain documents that are not necessary to submit to the City but can be submitted at the discretion of the RPR or CP (e.g., Schedules S-B and S-C from trade *contractors*' SRPs).

8.4 OCCUPANCY PERMIT WITH WORK REQUIRED

The City may issue an *occupancy permit* with work required when the status of the *project* is sufficiently complete that it is safe to occupy with minor Building By-law work still required.

The City relies on the CP to coordinate with the *owner* the completion of all outstanding work within a reasonable period. The City may require a letter of undertaking from the *owner*, with additional security as deemed appropriate. When all outstanding work is complete, the CP may request a reissued *occupancy permit* deleting any reference to outstanding work.

8.5 FINAL DESIGN DRAWINGS (FORMERLY CALLED RECORD DRAWINGS)

Final Design Drawings are drawings that are based on "issued for *construction*" drawings that have been updated to incorporate major design changes during *construction*. This applies to all BPs processed under the CP Program. Final Design Drawings are NOT "as-built" drawings. The final design drawings are intended to incorporate addenda, change orders and other significant design changes, but not necessarily site instructions used to make minor adjustments to designed conditions. The Final Design Drawings must be submitted to the AHJ four weeks prior to the final occupancy permit and two weeks prior to the City Demonstration, sealed by the RPRs and stamped with the CP stamp.

Refer to the <u>CP Final Design Drawings Submission Guide</u> for detailed instructions on how to complete and submit Final Design Drawings and the required supporting documents.

The CP must submit Final Design Drawings and supporting documents consisting of materials referenced in the <u>Final Design Drawings Checklist</u>. Final Design Drawings must be clearly marked as "Final Design Drawings".

If there are no changes to the BP drawings then the Final Design Drawings are not required. In this case the CRP must submit a letter to the City through the CP confirming that there have been no substantial changes from the issued BP and trade *permit* drawings.

The Final Design Drawings must be substantially consistent with the approved DP plans and incorporate any Minor Amendments that have been accepted by the City. These drawings may be audited for compliance with the issued DP plans. Inconsistency will delay the *occupancy permit* process. Refer to Section 7.6 for changes during construction that could possibly trigger a DP Minor Amendment or a BP Revision.

The CRP must submit a letter to the CP prior to *occupancy permit* confirming that the Final Design Drawings and the *project* as constructed "substantially comply with the approved development *permit* plans incorporating any approved Minor Amendments".

8.6 OCCUPANCY PERMITS FOR PARTIALLY COMPLETED BUILDINGS

An *owner* may require an *occupancy permit* for partially completed *buildings* which can take on several different variations as described below. Refer to the <u>Guide to the Letters of Assurance in the BC Building Code 2018 and Vancouver Building By-Law 2019</u> for further information.

8.6.1 PARTIAL OCCUPANCY WITH MINOR AREAS EXCLUDED

Where the base *building* shell is complete, but there are individual suites or small portions of the *building* that are incomplete (e.g., individual suites, amenity rooms, etc.), the CP will inform the DBI and Occupancy Clerk as to the extent of the *occupancy* exclusions.

The CP will discuss with the DBI specific measures that are required to maintain safety for the occupants and the public.

Schedules CP-2, C-A and C-B may be used for minor partial *occupancy permits* provided they clearly state on such Schedules the extent of the area(s) within the *building* to be excluded from the *occupancy permit*. The CP will submit a written description to the Occupancy Clerk of the portions of the building to be included in the partial occupancy.

As outlined in Article 1.6.7.1. of Division C of the Building By-law, work authorized by a BP must be continuously carried out to completion with no sustained period of inactivity. If work is discontinued for six months, the permit can be expired by the *Chief Building Official*. If there are areas of a project that the owner can't or doesn't want to complete (e.g. fitout of an individual suite), the CP must submit a revision to the permit in order to complete the project without discontinuity; the owner must apply for a separate permit for the remainder of the work when it's decided to proceed.

8.6.2 PARTIAL OCCUPANCY WITH MAJOR AREAS EXCLUDED

Where the base *building* is not totally complete (a shell *occupancy permit* has not been granted), or for complex *projects* that have major areas which have not been completed, the CP will coordinate a *project*-specific *occupancy* protocol for partially completed *buildings* (including a *construction safety plan*) to maintain an adequate level of safety for occupants and the public in a partial *occupancy*. The CP must submit such protocol to the CBO (with a copy to the DBI) for review and acceptance.

Schedules CP-2, C-A, C-B, and C-D may be used for partial *occupancy permits* provided they clearly state on such Schedules the extent of the area to be occupied. To avoid ambiguity, it is recommended the scope of partial occupancy be documented in the occupancy protocol prepared by the CP and that floor plans and/or elevations be provided. In the event the scope of the partial occupancy change, this must be clearly communicated to the AHJ and occupancy documents updated accordingly.

8.6.3 OCCUPANCY OF ONE BUILDING IN A PROJECT WITH MULTIPLE BUILDING COMPONENTS

For some large building projects with multiple building components (e.g., multiple buildings above a common underground parking garage, etc.) the construction phasing may allow the occupancy of one building component prior to the completion of the other building components. The CP should discuss with the owner if they intend to occupy buildings sequentially. The CP will request that the City issue separate BPs for each component to match the proposed sequential occupancies. The CP will coordinate a project-specific occupancy protocol for partially completed buildings (including a construction safety plan) to maintain an adequate level of safety for occupants and the public in a partial occupancy. The CP must submit such protocol to the CBO (with a copy to the DBI) for review and acceptance.

8.6.4 OCCUPANCY OF BASE BUILDING SHELL

In some cases, a base *building* shell *occupancy permit* is issued by the City upon completion and acceptance of the shell only (e.g., multi-tenant office *building* with no pre-leasing, shopping centre with no pre-leasing, etc.). All fire and life safety systems for the base *building* shell must be complete prior to issuance of the base *building* shell *occupancy permit*.

The unfinished tenant spaces will require separate BPs (TI *permits*) and subsequent *occupancy permits*.

BPs for TI work are described in detail in Section 2.5.

8.6.5 PRINCIPLES AND PROCEDURES FOR PARTIALLY COMPLETED BUILDINGS

The following principles are provided to assist CPs, CRPs and RPRs in determining the appropriate procedures when seeking occupancies for partially completed *buildings*:

- CP will prepare an *occupancy* protocol document dealing with the safety measures required to accommodate the occupants in a *building* that has portion(s) under *construction*;
- CP will review the *occupancy* protocol document with the DBI prior to the City Demonstration;
- The area(s) to be occupied must be substantially complete;

- Access routes to the occupied area(s) must be substantially complete and must be maintained clear and accessible at all times;
- Egress routes from the occupied area(s) to an acceptable open space must be substantially complete and must be maintained clear and accessible at all times;
- Fire and life safety systems within the occupied area(s) and within all floor levels below the occupied floor(s) must be substantially complete, and fire and life safety systems are required to be tested and verified to determine the systems are functioning accordingly;
- The CP must meet with the DBI on site to confirm that the *occupancy* protocol document incorporates appropriate site specific safety measures for public protection;
- Provide overhead protection if access to or egress from the occupied area(s) is beneath or adjacent to overhead *construction* activities;
- Provide hoarding or similar physical protection to separate and secure the occupied area(s), including access and egress routes, from the *construction* zone(s);
- Provide "Construction Zone Do Not Enter" signage to separate the occupied area(s) from the construction zone(s).

The *contractor* will submit a site specific Fire Safety Plan for the occupied portion(s) of the partially completed *building* to the Fire Department to reflect the special requirements to accommodate the occupied zone(s). Refer to Attachment 1, Guidelines for the Occupancy of Partially Completed Buildings.

Responsibilities of the CP after Building Occupancy

9.1 INTRODUCTION

This section outlines the responsibilities of the CP after the occupancy permit has been issued.

9.2 REFUND OF PERMIT FEES

Under Building By-law Article 1.6.4.5. of Division C, the City may refund a portion of the *permit* fees where a complete submission for BP has been accepted by the City on or prior to December 31, 2023 and where the quality of service provided by the CP substantially reduces the involvement of City Staff,.

The application for a refund of BP fees must be submitted in writing to the Occupancy Clerk within 90 days of issuance of the final occupancy permit using the <u>CP Permit Fee Refund Request Form</u>. Note that the refund must be paid to the entity who paid the BP application fee and cannot be remitted to a third party.

The following project types are not eligible for CP Fee Refunds:

- Alterations to existing buildings (due to the increased complexity and staff time required)
- · First TIs in a CP Project
- BP applications accepted by the City after December 31, 2023
- Projects for which the final occupancy permit is issued after December 31, 2028

CP refunds or other letters of credit refund will not be released until all outstanding items are completed, including landscaping.

9.3 COMPLAINTS POST OCCUPANCY

Post *occupancy*, Code compliance issues may arise that generate complaints which are subsequently brought forward to the AHJ. In these instances, the AHJ may request information from the CP to determine what occurred on the site during *construction*. The AHJ will manage the resolution of the complaint.

10. Further Resources

This Guide to the *Certified Professional* Program has provided a detailed description of the role and responsibility of the *Certified Professional* on *building construction projects* in the City of Vancouver. In order to successfully practice as a CP, it is essential that knowledge be maintained and upgraded on an ongoing basis. To aid in the day-to-day practice of CPs, the following is a summary of resources available to provide support and information.

1. City of Vancouver CP Website: http://vancouver.ca/home-property-development/certified-professional-program.aspx

Available resources include:

- a) CP By-law No. 6203
- b) Building and occupancy permit application forms and other documentation
- c) Building By-law checklist
- d) CP newsletters
- e) Process flow charts
- f) Contact information for the CP Advisory Group
- g) List of active CPs
- h) Presentations from past seminars
- 2. Vancouver Building By-Law (CBO) Website: https://vancouver.ca/your-government/vancouver-building-bylaw.aspx

Available resources include:

- a) Information on the 2019 Vancouver Building By-law
- b) Link to Information Bulletins issued to clarify VBBL requirements
- 3. Province of BC Building Codes and Standards Branch:

https://www2.gov.bc.ca/gov/content/industry/construction-industry/building-codes-standards

Available resources include:

- a) Purchasing information for the 2018 BC Building Code, 2019 Vancouver Building By-law, and other relevant supporting documents
- b) BC Building Code Interpretations
- c) Links to National Building Code information and resources
- 4. Codes Canada (National Research Council Canada): https://nrc.canada.ca/en/certifications-evaluations-standards/codes-canada
- 5. Society of Fire Protection Engineers: http://www.sfpe.org
- 6. National Fire Protection Association: http://www.nfpa.org

For questions related to the CP Program in the City of Vancouver, not answerable through the above resources, please contact the CP Coordinator by email at cp.process@vancouver.ca.

Document Amendment History

VERSION NUMBER	PUBLISHED DATE	DESCRIPTION OF CHANGES
3.0	December 5, 2023	Updated to the Vancouver Building By-Law 2019 and to reflect current policies and procedures in the City of Vancouver. Removed gendered language. Provided hyperlinks to referenced documents and removed attachments.
2.0	November 1, 2015	Minor editorial changes. Attachments 13 and 14 added.
1.0	January 1, 2015	First issued, based on the Vancouver Building By-law 2014

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11. Attachments

ATTACHMENT 1: GUIDELINES FOR THE OCCUPANCY OF PARTIALLY COMPLETED BUILDINGS

This section allows for the issuance of a partial occupancy permit referred to as "Interim" provided the conditions stated in this section are met.

Partial occupancy permits are not required for buildings of residential occupancy in buildings of three storeys or less in building height in which:

- a) there is not a common means of egress for more than two dwelling units located within the three (3) storeys, and
- b) no dwelling unit is intended for use by the transient public.

Guidelines

- 1. The structural shell of the building shall be completed, including all enclosing walls and roof.
- All required fire separations including closures shall be completed on all occupied floor areas
- 3. Required exits shall be completed and fire separated with all doors and self-closers fitted down to grade or below if exit connects to floors below grade; required exits need not be completed and fire separated above the highest occupied floor provided there is a temporary separation located in the exit at the floor above the highest occupied floor.
- 4. Guards and handrails shall be fitted as required for the occupied floor areas and for the floor areas accessible to the occupants.
- 5. All shafts including closures shall be completed up to and including the floor-ceiling assemblies above proposed occupied floors and temporarily fire separated at the top.
- 6. Access to uncompleted portions of the building and the site shall be controlled by properly constructed hoarding and fences and shall be restricted to authorized personnel.
- 7. Floors, halls, required means of egress and lobbies shall be free of loose materials and other hazards.
- 8. If the boiler or service room is required to be in operation, the required fire separation shall be completed with all closures installed.
- 9. Proper connections shall be made to sewers, or, if temporary, shall be approved by the authority having jurisdiction.
- 10. All plumbing serving occupied floor areas shall be complete and operational.
- 11. Lighting as required in Subsection 3.2.7. of Division B shall be installed and operational in the occupied areas of the building.

- 12. Required exit marking and signs shall be installed and operating in all areas of the building accessible to the occupants.
- 13. Required standpipes and fire alarm systems shall be installed and operational throughout the building except that on unoccupied floor areas the fire alarm facilities may be provided on a temporary basis.
- 14. Required pumper connections shall be provided on sprinkler systems and standpipe systems.
- 15. Required fire extinguishers shall be provided throughout the building; in unoccupied floor areas the requirements shall be those of Part 8.
- 16. Required sprinkler systems shall be installed and operational on all floors, up to and including the highest occupied floor.
- 17. Main garbage collection rooms, chutes and ancillary service thereto shall be completed on all occupied floors.
- 18. Required fire department access routes shall be provided and accessible at all times.
- 19. These requirements do not preclude completion and occupancy of the higher floors of the building before intervening or lower floors are completed and occupied.
- 20. Other requirements as may be required by the City Building Inspector to reduce fire risk and assure reasonable degree of safety and public welfare as well as the need to protect the safety and welfare of the building occupants.

Note: Contact the Occupancy Clerk for an application for a partial permit. Before a permit is issued clearance from disciplines such as Building, Electrical, Plumbing, Gas, Sprinkler, Fire Warden, Health, Industrial Waste, Energy Utilization, Engineering and CP Coordinator is required.

ATTACHMENT 2: OCCUPANCY PROCEDURE FOR CERTIFIED PROFESSIONAL PROJECTS

The Occupancy Procedure for CP projects generally includes the following steps:

- The CP will work in close association with the CRP and RPRs in order to establish the project specific criteria for occupancy, including the list of submission documents and the test protocol.
- 2. The CP will make an application for occupancy permit to the Occupancy Clerk at least 3 weeks in advance of the desired date of occupancy.
- The CP will submit Final Design Drawings and related documents via POSSE two weeks prior to the City Demonstration (see the <u>Final Design Drawings Checklist</u> and <u>Final Design Drawings Submission Guide</u>).
- 4. The trade contractors will submit to the CP the fire alarm verification certificate (including ULC Appendix C), the material and test certificates, the emergency generator test, the ULC protective signalling service certificate, the elevating devices inspection report, and the fire pump start up and flow test data sheet.
- 5. CP will coordinate the Consultant Demonstration of the fire and life safety systems (e.g. fire alarm, sprinklers, standpipes, emergency generator, exit lighting, emergency lighting, HVAC, etc.)
- 6. CP, CRP and RPRs will witness functional testing of the fire and life safety systems as part of the Consultant demonstration and prepare a deficiency report of such tests.
- 7. One week prior to the desired City Demonstration date, the CP will coordinate the date and time of the City Demonstration with the District Building Inspector (DBI).
- 8. Trade contractors will correct all of the deficiencies and witness the re-testing of fire and life safety systems as required.
- 9. RPRs will review correction of the deficiencies and witness the re-testing of fire and life safety systems as required.
- 10. The CP will submit to the District Building Inspector a project specific test protocol and supporting documents at least 48 hours in advance of the City Demonstration. (Refer to the Occupancy Permit Submission Documents Checklist.)
- Trade contractors will submit their occupancy permit submission documents to the CRP and the documents will be forwarded to the CP. (Refer to the <u>Occupancy Permit</u> <u>Submission Documents Checklist.)</u>
- 12. The CP will review the submitted documents with the CRP and RPRs for completeness and accuracy.
- 13. The CP will coordinate and conduct the City Demonstration of the fire and life safety Systems.
- 14. CP, CRP and RPRs will create a deficiency list resulting from the City Demonstration.
- 15. Trade contractors will correct the items on this deficiency list.

- 16. CP will coordinate with the general contractor, trade contractors, CRP, the RPRs and the appropriate City Inspectors to demonstrate retesting of the deficiencies. (This is not necessarily a coordinated City Demonstration.)
- 17. The trade contractors, being the trade permit holders, must arrange for a final review with the appropriate City Inspectors or Provincial safety authorities and obtain the final clearance forms (sign-off cards) from City and Provincial safety authorities for electrical, plumbing, sprinkler and standpipe systems, gas, elevators, etc. (This may happen before or after submission of the Schedule C-Bs from the RPRs.)
- 18. The CP will coordinate with the CRP the Consultant Final Field Reviews of all of the other fire and life safety components (e.g., guards, handrails, exit routes, etc.) and non-life safety components (e.g., building envelope, interior finishing, etc.) of the project.
- 19. CP, CRP & RPRs create final deficiency lists of all components resulting from the Consultant Final Field Reviews.
- 20. Trade contractors correct the items on these final deficiency lists.
- 21. The CP obtains confirmation from the RPRs that the deficiencies have been satisfactorily corrected.
- 22. When all deficiencies are satisfactorily corrected, the RPRs submit their Schedules C-B to the CRP, and the CRP submits their Schedule C-A and the collected C-Bs to the CP.
- 23. CP collects the Schedule C-A and Schedules C-B and submits the complete package to the District Building Inspector no less than two days in advance of the DBI final review.
- 24. CP meets onsite with the DBI for a final review to confirm that the project is substantially complete and is considered safe to occupy. CP prepares a deficiency list, if required, resulting from the DBI final review.
- 25. CP prepares a deficiency list, if required, resulting from the DBI final review.
- 26. CP monitors correction of the deficiencies and reviews such correction with the DBI.
- 27. The CP will review with the Occupancy Clerk the status of clearance from other City Departments (Law, Engineering, Environmental, Waterworks, Health, Fire, etc.) and assist to obtain clearances if required.
- 28. The City will issue an occupancy permit when all clearances have been obtained.