Code Commentary

Part 2 - Getting Started

by

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Last month I encouraged you to always ask where a code requirement is found in the Code. You may discover that it's either not in the code or it is very different from what you were told. Now, let's suppose that you want to find out what the code says about something. Where should you start?

The B.C. Building Code has an index, which can be quite useful. However, you need to be careful once you look up a particular sentence. You might feel like a Star Trekker, getting beamed down to some planet. The index instantly beams you down to some sentence, which is unfamiliar - and potentially dangerous - territory. Will you be asked to refer to some other clause or sentence? Does the sentence you are reading only apply to a certain type of building? Perhaps there's another way to start...

3 - 6 - 9

Let's beam ourselves back up and first consider the major parts of the B.C. Building Code. You'll find it quite helpful to memorize three numbers - "3, 6 and 9" - which stands for Part 3 (Use and Occupancy), Part 6 (HVAC), and Part 9 (Housing and Small Buildings).

Part 6 (HVAC) is obviously important in our business, and it is referred to in both Parts 3 & 9. In other words, whether you're dealing with a house or a hospital, you need to become familiar with Part 6.

Unfortunately, there are also many HVAC-related issues discussed within Parts 3 & 9. For example, Part 3 talks about plenums, fire dampers, and stairwell pressurization. Part 9 talks about ventilation of crawl spaces, combustion air, and ducts for kitchen ranges. So you can escape dealing with all three Parts.

Let's Start With a Question

A good place to start in dealing with any code issue is to ask - "Is this a Part 3 or Part 9 building?" This is usually quite simple. Part 9 is for small buildings and Part 3 is for large buildings. If it's a house, then Part 9 applies. If it's a school, Part 3 governs. However, if you come across a "medium-sized" building, such as an ambulance station, you need to test out the conditions for using Parts 3 or 9 by looking up Subsection 2.1.2 (in Part 2). You'll need to know the *building area*, *building height*, and the *building classification*. Area and height are familiar engineering terms, but building classification is a code term we need to discuss.

Classify Your Building

If you look up **Table A-3.1.2.A** (in the Appendix on page 484), almost every type of building occupancy is classified. For example, office buildings are Group D, an Apartment is Group C, and a nursing home is Group B, Division 2 ("B-2"). Unfortunately this table does not give you the official description of these classifications, but this in given in Table 3.1.2.A. (on page 47). (For example, D = *Business and personal services occupancies*.) If you're dealing with a building with more than one occupancy, then you should read **3.1.3 Multiple Occupancy Requirements**.

After you have established the Group and Division of a building, the last step is to determine its "size & construction" sub-classification. The code addresses this sub-classification starting at **Article 3.2.2.16** on page 84. At this point, you probably need to call the project architect (not too close to lunch). However, you may be able to get close to the right answer if you know how the building will be (or is) constructed.

An Example

Let's take a typical office building (Group D Business), which is over 600 m^2 in building area. From **2.1.2.1(1)(b)**, you know that **Part 3** will apply. Next, go to **3.2.2.39** at the bottom of page 95, and browse up to page 98. Possible sub-classifications include:

3.2.2.39 1 and 2 Storeys

3.2.2.40 up to 3 Storeys

3.2.2.41 up to 6 Storeys

3.2.2.42 any height, any area

Don't be fooled into thinking that because your building is 2 storeys it'll fall under **3.2.2.39**! You must read the conditions in sentence **(1)**, i.e., *building area*, the number of

assessable *streets* (for fire fighting), and whether there will be a sprinkler system. If these conditions cannot be met, the architect or code consultant may be looking at one of the other sub-classifications.

Summary

Key building code parts are Part 3,6 and 9.

Determine if Part 3 or Part 9 will apply.

Determine Group and Division using pages 484 & 84.

Determine sub-classification using pages 84 - 111 as appropriate.

Part 6 (HVAC) will apply whether a building falls under **Part 3** or **Part 9.**

Next month we'll address the issue of other codes such as CSA standards, the Plumbing Code, WCB, and so on.

Note: I have followed the code's use of bold text for code titles and numbers, and italics for words and phrases that are defined in the Code (in **Article 1.1.3.2** on page 4).