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Adaptable Dwelling Units Frequently Asked Questions

This bulletin provides responses to frequently asked questions about changes in the British Columbia Building Code (Building Code) 2024 regarding adaptable dwelling units. This bulletin may be updated from time to time to provide answers to more questions.

This bulletin supplements the Building Code 2024 adaptable dwelling unit requirements, but it does not repeat them. This bulletin is not to be relied on as an alternative for reviewing the Building Code 2024. Questions on how to apply the Building Code to a specific project should be directed to a building professional.

<u>Bulletin B24-01-R</u> provides information on the effective date for these new requirements. Information on the technical changes to the accessibility and adaptable dwelling unit requirements will be further discussed in separate bulletins, soon to be released. Code users are encouraged to <u>sign up for BC Codes updates</u> and check often for new <u>technical bulletins</u>.

More information on accessibility and adaptability, including reports on public engagements can be found on the Building Codes & Standards' <u>website</u>.

What is an adaptable dwelling unit?

The Building Code 2024 defines an adaptable dwelling unit as "a dwelling unit designed and constructed with some accessible features, and which accommodates the future modification to provide more accessible features." This means the elements and features of a building that are impractical or impossible to renovate are built to be resilient to multiple future renovations at the initial time of construction.

Building walls and systems, such as plumbing and electrical, that are not easily renovated in an apartment building (could be loadbearing, could be fire separations) are located and designed to suit a variety of occupants' needs and preferences over the life cycle of the building, minimizing expensive or impossible renovations.

Furnishings and finishings, such as kitchen and bathroom cabinetry, fixtures, and appliances, are easier to change over the life cycle of the building. The Building Code provides designers' choice for such furnishings and finishings within dwelling units as occupants have various unique preferences and needs and that these preferences and needs can evolve over time.



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What units of what buildings must be adaptable?

The adaptable dwelling unit provisions in the Building Code 2024 apply to single-storey units that are served by a common accessible interior corridor. Typically, this means single-storey units in apartment-style buildings will need to be designed and constructed as adaptable.

There are several circumstances described in Article 3.8.5.1. of Division B where the adaptable dwelling unit provisions do not apply to a dwelling unit, such as:

- The dwelling unit is more than two stories,
- The dwelling unit has its own separate entry/exit to the exterior, or
- The dwelling is not served by an interior corridor that is required to be accessible.

For apartment-style buildings, the Building Code 2024 requires the common building entrances to be accessible as well as the common paths of travel on the entry level.

For buildings following Part 3 of Division B, this can mean first storey dwelling units must be adaptable, but second storey units may not be unless an elevator provides access to that second storey. An elevator is required in three storey buildings following Part 3 which essentially means access is required for all common corridors and spaces throughout the building and that all units served from the accessible interior corridors must be adaptable.

For buildings following Part 9 of Division B, this can mean first storey dwelling units must be adaptable, however second and third storey units are not required to be adaptable unless an elevator provides access to those second and third stories. An elevator is not required in buildings following Part 9 of Division B, if the second and third stories contain only dwellings.

For buildings following Part 3 or Part 9, an elevator is required to connect accessible common areas such as common recreation areas, common garbage and recycling rooms, and common rooftop occupancies. Amenities for the shared use and enjoyment of all occupants are to be accessible and connected by an accessible path of travel.

Are adaptable dwelling unit requirements being phased in?

Yes, and sort of. The requirements adopted into the Building Code 2024 are a first step. However, unlike the BC Energy Step Code and Carbon Emissions Levels, the Province has not yet created subsequent steps nor a time frame on their creation. Feedback received during consultations and summarized in the engagement reports on the resources <u>web page</u> said more is needed to ensure appropriate and affordable housing is made available. While it is recognized that there are still opportunities inside units for more features to be adaptable¹,

¹ Such as more bedrooms, more bathrooms, more living spaces, balconies, laundry areas, and operable windows, as well as inter-storey travel.

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and opportunities for more units of more building types to be adaptable², there is much more engagement and analysis yet to do before speculating subsequent steps. Those interested in further development of adaptable dwelling unit requirements are encouraged to participate in the <u>national code development system</u> where work is ongoing.

Can the clear spaces in adaptable units overlap with other required clear spaces?

Yes. Clear spaces can serve multiple functions and features. Utilizing clear spaces for multiple functions is encouraged as this helps reduce unnecessary movement between tasks. Sentence 3.8.5.2.(2) of Division B explicitly states that unless otherwise required, clear areas and spaces are permitted to overlap with others.

Does all clear floor space have to be kept clear all the time?

Clear floor spaces that function as emergency routes must not be obstructed.

Recognizing that renovations may occur over the life cycle of the unit, many of the clear floor space requirements are only required to be shown on architectural drawings for the purposes of demonstrating the potential. The furnishings and finishings as part of the initial construction or initial decoration do not need to be the same as those illustrated on architectural drawings for the purposes of demonstrating the potential. Features such as an additional kitchen island or bathroom linen cabinet that are not depicted on the set of architectural drawings for the purposes of demonstrating the potential may still be included in initial construction. If the proposed unit design differs from the potential unit design, both proposed design and potential design should be clearly noted in the architectural drawings.

If I show the future potential for clear floor spaces and future installations of fixtures on architectural drawings, do I have to build the unit as drawn?

No. To demonstrate compliance, a set of architectural drawings needs to show that when cabinetry and fixtures (as examples) are selected and located accordingly that the spaces described in the Building Code are available for the occupant. A second set of architectural drawings can be created to show the intended cabinetry and fixtures (as examples) that are intended for initial construction. (This second set of drawings could show select features as 'removeable' or simply as different.) The drawings showing 'potential' and the drawings showing 'proposed' may have different cabinetry and fixtures (as examples), but the walls and the location where the plumbing system penetrates the walls will generally be the same.

² Such as second and third storey units of small apartment buildings, row houses, townhouses, duplexes, triplexes, semi-detached houses, and detached houses.

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As an example, a kitchen island with a sink may be shown on 'proposed' architectural drawings and the cooktop may be separate from the island against an adjacent wall. The set of architectural drawings showing 'potential' will need to demonstrate how the island could be reconfigured so that the sink has a continuous counter between it and the cooktop.

What does the Building Code mean with the language "that accommodates the future installation of"?

The Building Code uses the language "that accommodates the future installation of" in relation to power door operators in Sentence 3.8.5.4.(5), in relation to lavatories, showers, bathtubs, and grab bars in Sentence 3.8.5.7.(1), and in relation to kitchen sinks in Sentence 3.8.5.8.(1) of Division B. Accommodating the future installation means that the designated location for a power door opener, plumbing fixture, or grab bar, does not have obstacles that would hinder the installation of an opener, accessible fixture, or bar as described in the Building Code. It may not be reasonable to change walls or the portions of the plumbing systems within those walls in the future, so those items need to be considered during the design process. The actual items installed during initial construction do not need to be the accessible ones described in the Building Code, but the space is accommodating should somebody need or wish to replace items with accessible items in the future.

How many bedrooms and bathrooms in a unit must be adaptable?

One bedroom and one bathroom in an adaptable dwelling unit need to be adaptable. Sentences 3.8.5.6.(1) and 3.8.5.7.(1) of Division B state "at least one" meaning one is compliant.

Dwelling units with more than one bedroom or bathroom are only required to designate one of each to be adaptable. It is recommended, but not required, that if a bedroom with an ensuite is selected to be the designated adaptable bedroom that the ensuite be the designated adaptable bathroom.

The designated adaptable bedroom and adaptable bathroom must be connected with a path of travel that meets minimum clear width requirements, but this path of travel is not required to connect to other bedrooms or bathrooms. The path of travel serving the adaptable bedroom and adaptable bathroom is required to be connected to the unit entry/exit door, a living space, and an adaptable kitchen.

Does the adaptable bedroom have to accommodate two people?

No. Although occupant load is typically based on two persons per bedroom, this is used primarily to assign appropriate fire safety requirements and not as a requirement that two people must occupy a bedroom. It may be prudent to designate the adaptable bedroom as one that can easily accommodate two people and provide access to multiple sides of a bed,

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but there may be other reasons not to. The Building Code does not regulate furniture such as beds, other than to demonstrate that a bed can be located such that an adequate turning/transfer space can be adjacent on one side. The Building Code does not limit the choice of bed nor require a path of travel to more than one side. A bed that is shown on architectural drawings to demonstrate an adequate transfer/turning space does not have to be the actual bed the occupant selects or in the exact location from the drawings as these are at the occupant's discretion. Furniture placement cannot obstruct emergency routes including egress windows.

The pathway within the bedroom to allow functional use of the of the space should connect to controls that the occupant is expected to use as part of daily living. For example, it would be prudent to connect the pathway to a thermostat- but if that thermostat was controlled by a mobile or remote device then the pathway would not be necessary.

What is an adaptable kitchen?

An adaptable kitchen is one that can be shown on architectural drawings as a functional kitchen layout that provides the required clear floor space. The architectural drawings must show the potential for a cooktop and sink to be adjacent, or the potential for a continuous counter to connect the two. It is anticipated that kitchen renovations may occur over the lifecycle of the unit, so it is not required that the kitchen initially constructed be the same as the kitchen layout demonstrated on architectural drawings for the purposes of demonstrating the potential. It is however required that the plumbing system serving the kitchen be located at a height where it penetrates the wall such that a sink could be installed at multiple different heights without requiring substantial reconfiguration to the plumbing system. It may be helpful to consider the adaptable kitchen design referred to in the Building Code as the surrounding kitchen walls and area provided for the kitchen and not the finished cabinetry or appliances themselves as cabinetry and appliances can change over the building's life cycle.

Kitchen islands are considered as cabinetry that could be removed or joined with other cabinetry in the future. If plumbing fixtures are located in the kitchen island, consideration must be given to the location of the plumbing systems where they penetrate the floor so that a kitchen renovation could be possible without requiring reconfiguration of the portions of the plumbing systems contained within the floor.

What is an adaptable bathroom?

An adaptable bathroom is one that can be shown on architectural drawings as a functional bathroom layout that provides the required clear floor spaces. The architectural drawings must show the potential for a lavatory (sink), and shower or bathtub, that meets some accessibility provisions, but it is not required that the fixtures initially installed be the same as

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the bathroom layout demonstrated on architectural drawings for the purposes of demonstrating the potential. It is however required that the plumbing system serving the lavatory, and shower or bathtub, be located such that the wall penetration enables different fixtures to be traded out without requiring opening the walls and substantial reconfiguration to the plumbing system. As an example, the lavatory may not be accessible at initial construction, but plumbing systems behind the walls allow for replacement of the lavatory and any supporting cabinetry and finishes without requiring reconfiguration of the portions of the plumbing systems contained within the walls. A clear lateral transfer space is required adjacent the water closet.

Functional clear space adjacent the water closet described in Article 3.8.5.7. of Division B is required at the time of initial construction. The Building Code does not however require this space to be kept clear at all times. If the occupant or their guests are not using the space for transferring to the water closet, it is reasonable to use this space for other purposes such as removeable shelving or furniture for storage.

Utilizing clear spaces for multiple functions is encouraged. It is possible to utilize the floor area of a zero-threshold shower to also serve as the functional clear floor space required for the use of other fixtures, such as the water closet (toilet).

Grab bars are not required, however; the walls adjacent to the water closet, and to the shower or bathtub, must be reinforced so that the future installation of grab bars is not limited by insufficient or unsuitable anchorage points.

Does a balcony need to be accessible as a protection for the accessible path of travel?

The application and options for the protection on floor areas with an accessible path of travel in Article 3.3.1.7. of Division B are unchanged by the adaptable dwelling unit requirements. Paths of travel inside adaptable dwelling units are not in scope of Article 3.3.1.7. A balcony serving only a dwelling unit or only an adaptable dwelling unit is not considered common space and is therefore not required to be accessible. If a common balcony is provided, then an accessible path of travel would be required as it is for common spaces generally, which include shared lobbies, shared recycling rooms, and the public corridors connecting those spaces. As an example, public corridors that provide an accessible path of travel need to be protected in accordance with one of the options listed in Sentence 3.3.1.7.(1) should they be located above or below the first storey in a building that is not sprinklered. The option to provide access to a common balcony may be less practical than options such as for sprinklers, elevators, or zones (fire-separated compartments), because the common balcony must be directly accessible from the public corridor without passing through any dwelling units.



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Are parking spaces and/or passenger-loading zones required for adaptable dwelling units?

The Building Code does not require parking. Local authorities may however require parking so it is recommended to check with the local authority. The Building Code does not require passenger-loading zones, however if they are provided voluntarily, then the Building Code does require them to be designed and constructed a certain way. If a designated accessible parking area or a passenger-loading zone is provided, the Building Code requires a path of travel connecting them to a building entrance to be accessible.

Do adaptable dwelling units look different from other dwelling units?

Adaptable dwelling units can look and feel the same as other dwelling units. The designer has the same choices for furnishings, finishes, and aesthetics broadly as for other dwelling units. The difference between adaptable dwelling units and other dwelling units is that adaptable dwelling units are shown on architectural drawings to have the potential to be renovated to suit a variety of occupants needs without costly and intrusive reconstruction of building systems (such as, but not limited to, structural, fire protection, and plumbing).

What is the impact to construction costs?

The adaptable dwelling unit provisions share some similarities with <u>SAFERhome Standards</u> which, when incorporated in the design stage, can be achieved with a nominal construction cost increase of approximately \$1 100. Construction costs to renovate an existing home to the provide the same features can exceed \$100 000.

Providing adaptable housing provides safer housing for all, as dedicated manoeuvring and functional spaces may help reduce trips and slips, thereby reducing personal distress and impacts to the medical system.

The Building Code 2024 includes many updates to the accessibility requirements including the reduction and elimination of historical variations to the model National Building Code of Canada (NBC). Recent anthropometric data has been reviewed to inform better and more economical design. A notable example is that B.C.'s historical default for the width of an accessible path of travel was 1 500 mm; the NBC 2020, based on recent anthropometric data, requires 1 000 mm as a minimum. The Building Code 2024 adopted the 1 000 mm minimum in large part to ensure the space the Building Code requires provides the greatest chance of being needed and used, without requiring the expense of constructing space that may not be used. Scrutinizing these historical requirements is one way the Province worked to economize floor space in buildings.

Do student dormitories and other residential units need to be adaptable?



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No. The adaptable dwelling unit provisions are for permanent housing. Other residential uses such as student dormitories that have management systems in place to assign sleeping rooms and bed spaces to individuals on a temporary basis are similar to hotels and motels. As for hotels and motels, student dormitories and other residential uses where management systems can allocate sleeping rooms and bed spaces on a temporary basis based on individuals' needs and preferences must provide at least one fully accessible sleeping room or bed space for each 20 provided. Since it does not make sense to expect a temporary occupant to 'adapt' one's sleeping room or bed space, the other 19 of 20 rooms/spaces are not required to be adaptable. It is a management decision on whether to provide accessible features in more rooms and spaces than the minimum required by the Building Code.

Does this bulletin change what the Building Code 2024 says?

No. This bulletin intends to clarify the intended interpretation and application of the Building Code 2024 where confusion may exist over the technical language used in the Building Code.

Will there be an adaptable dwelling and an accessibility handbook?

As the BC Building Code's accessibility requirements are more closely harmonized with the model National Building Code, there are no plans to update the 2020 edition of the Building Accessibility Handbook, which support implementation of the 2018 edition of the BC Building Code.

However, plans are underway to develop a guide with commentary and design solutions to support implementation of and compliance with the new BC Building Code 2024 adaptable dwelling requirements.

Did B.C. early adopt visitability provisions that are being developed through the national code development system?

No. B.C. developed and adopted the adaptable dwelling units provisions ahead of, and independently from, the national codes development system in order to fulfill a mandate to "make new buildings more accessible for all people." B.C.'s adaptable dwelling unit provisions include some accessible features (as described in the Building Code definition of "adaptable dwelling unit") and the accessible features that are required help ensure the dwelling unit is useable at a basic level by occupants. However, providing these features may also provide a level of visitability for people with diverse abilities. For example, reasonable access is to be provided to a water closet as part of one's home which can also serve visitors. Many Building Code provisions carry multiple purposes and benefits beyond their attributed objective and function. Though discussions on visitability, the adaptable dwelling unit provisions in the Building Code 2024 have not been changed.



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What needs to be provided as a rough-in to accommodate the future installation of a power door operator?

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A single special outlet box must be provided at a location where it can power the door operating mechanism, typically at the top of the door at the jamb. It shall be wired such that it could provide the anticipate electrical service to power a door operator. It shall be protected by a cover plate, which also identifies its location should a power operator be installed. No further electrical boxes or cover plates are required beyond the one that would supply power to the door operator mechanism. Should a power door operator be installed, the Building Code intends to allow flexibility in design and technology for controls and any locking devices such as electronic strikes. It is not intended that the power door operator control provisions in Article 3.8.3.6. be applied to dwelling units. The controls and technologies chosen when installing power door openers in dwelling units should consider the household activities, abilities and needs of the occupants, and safety for all including children and pets.