

**ACCESSIBILITY ANALYSIS OF MODEL CODES**

**BOCA NATIONAL BUILDING CODE ANALYSIS**

**REPORT FOR PUBLIC COMMENT**

*Prepared By:*

Steven Winter Associates, Inc.  
50 Washington Street  
Norwalk, CT 06854  
203-857-0200

*Presented To:*

U.S. Department of Housing and Urban Development  
451 7<sup>th</sup> St. SW  
Washington, DC 20410

October 20, 1999

## **I. PURPOSE**

The purpose of this report is to identify provisions of the 1996 edition of the National Building Code (herein referred to as BOCA), published by the Building Officials & Code Administrators International (BOCA) that do not meet the requirements of the Fair Housing Act, the regulations implementing the 1988 Amendments to the Act, or the Fair Housing Accessibility Guidelines (the Guidelines). Where variances are identified, Steven Winter Associates, Inc. (SWA) recommends how they may be revised to meet the requirements of the Act, the regulations, or the Guidelines. The 1999 edition of the BOCA National Building Code was published in January, 1999. A review of the 1999 edition of BOCA is not part of the scope of the following analysis.

## **II. METHODOLOGY**

The analysis by SWA of the BOCA code consisted of the following:

- A review of the language of the Act, 42 USC § 3604 (f)(3)(C) (the Act), the regulations at 24 CFR §§ 100.201 and 205 (the regulations), the Fair Housing Accessibility Guidelines, 56 Fed. Reg. at 9472-9515 (the Guidelines), and the June 28, 1994 Supplement to Notice of Fair Housing Accessibility Guidelines: Questions and Answers About the Guidelines,” 59 Fed. Reg. at 33362-33368 (the Questions and Answers).
- A review of the December 15, 1997 copyrighted comparative matrix developed by the International Code Council (ICC), Building Officials & Code Administrators International (BOCA), International Conference of Building Officials (ICBO), Southern Building Code Congress International (SBCCI), and the Council of American Building Officials (CABO). The matrix, which was included with HUD’s Request for Quotations for this analysis consists of a side-by-side comparison of the Guidelines with the corresponding accessibility provisions of the model building codes. SWA began its analysis of BOCA by reviewing the column of the matrix that includes BOCA’s accessibility requirements and comparing them with the column that includes the provisions of the Guidelines. The matrix review was conducted to identify apparent variances between BOCA’s accessibility requirements and those of the Act, regulations, and Guidelines.
- A review of the accessibility provisions of the 1996 edition of BOCA; and a review of applicable referenced codes and standards, including: American National Standards Institute (ANSI) A117.1-1986, which is referenced in the regulations, and CABO/ANSI A117.1-1992, and the International Plumbing Code - 1995, which are referenced by BOCA. Because the matrix did not include full text of the technical provisions, it was necessary to use these standards as companion documents in assessing the matrix, the Guidelines, and BOCA. They were reviewed to identify any

variances from the Act, regulations, or Guidelines in the technical provisions required by each.

- Interviews with Kim Paarlberg, BOCA Staff Architect and the liaison to the IBC Means of Egress/Accessibility Committee, to gain insight into how the BOCA responds to variances that SWA identified. SWA found it necessary to understand BOCA's interpretations of its own requirements that may not be apparent when reviewing code text.

The original analysis of the BOCA National Building Code (BNBC) was submitted to HUD on August 5, 1999. HUD formed a Model Code Working Group consisting of representatives from the Office of Fair Housing and Equal Opportunity, the Office of General Counsel; and the Office of Housing. A representative of the U.S. Department of Justice also participated on the Working Group. The Working Group met with SWA on September 8, 1999, and asked questions and made comments and suggestions about the analysis. This meeting led to further conversations between SWA and Kim Paarlberg, and conversations between HUD staff and BOCA staff. This analysis reflects the results of the Working Group comments and suggestions and the additional information from Code staff. This analysis also has been revised and edited by HUD staff. The analysis described herein does, however, represent the findings and conclusions of SWA, the Department's contractor for this project.

### **III. THE BOCA CODE**

The Building Officials & Code Administrators International (BOCA), Inc., is a nonprofit organization that administers the BOCA National Building Code (BNBC) series of model regulatory construction codes. The code provides minimum standards for public safety, health and welfare as they are affected by building construction. Compliance with the BOCA model building code is not required unless adopted by reference by a jurisdiction's board, council, or other authoritative governing body.

The 1996 BOCA National Building Code – Thirteenth Edition, published January 1, 1996, includes provisions for accessibility intended to reflect the intent of the Act. Previous editions of the code include provisions for accessibility, but not as required by the Act. The 1996 BNBC, Chapter 11, Accessibility, is the first attempt at codifying the accessibility provisions of the Act. Any jurisdiction that adopts the 1996 BNBC must follow these accessibility provisions.

Unlike the Fair Housing Act, BNBC is a model building code and not a law. It provides minimum standards for public safety, health and welfare as they are affected by building construction. Compliance with BNBC is not required unless adopted by reference by a jurisdiction's board, council, or other authoritative governing body. Jurisdictions may adopt a model building code in its entirety or with modifications; hence, the building codes are referred to as "model codes."

In the past, some model building codes have required that a certain percentage or number of dwelling units in defined residential uses meet the standards for full accessibility as defined by ANSI A117. These dwelling units are referred to in BNBC, 1107.4.2, and defined in Section 1102, as “Type A” dwelling units. Section 1107.4.2 of the code, adopts standards for “Type B” dwelling units. A “Type B” dwelling unit is defined in Section 1102 as a dwelling unit that is designed and constructed to provide a minimal level of accessibility in accordance with the applicable provisions of Chapter 11 and CABO/ANSI A117.1 listed in Chapter 35. The purpose of the Type B dwelling unit is to incorporate the requirements of the design and construction requirements of the Act, the regulations, and the Guidelines . BOCA adopts CABO/ANSI A117.1-1992 and refers to the International Plumbing Code (IPC) for the technical provisions for toileting and bathing facilities, kitchens, and bathrooms. It is important to note, however, that neither CABO/ANSI-A117.1-1992 nor the IPC contain scoping provisions, as discussed below.

#### **IV. SCOPING PROVISIONS**

Building codes have two major components that are relevant to this analysis. One component describes the technical standards that should be applied during the design and construction or alteration of a building or structure or elements within a structure. The other component is a description of the types of buildings or structures or elements within a structure to which the technical standards are applied. The provisions in this second component are referred to as “scoping” provisions. This section of the analysis sets forth areas where the scoping provisions of the BNBC do not include all of the dwelling units, buildings, or uses that are covered by the Act, the regulations, or the Guidelines. This analysis of the scoping provisions of BNBC included an examination of the following:

- BNBC’s definition of dwelling unit, building, structure, and ground floor dwelling unit;
- BNBC’s classification of residential buildings according to use and occupancy; and
- BNBC’s scoping of dwelling units to which the accessibility provisions apply.

This analysis concludes that BNBC covers most of the same dwelling units, buildings and residential uses as the Act, regulations, and Guidelines. For example, SWA concluded that, in buildings with four or more dwelling units, apartments, custom-designed condominiums, multistory units with internal elevators, single story townhouses, modular units are covered, and additions of four or more units to existing buildings, are included within BNBC’s scoping requirements for Type B dwelling units. However, SWA has concluded that the following provisions of BNBC do not or may not include “covered multifamily dwellings” as they are defined in the Act, regulations, or Guidelines.

#### BNBC Classification of Residential Use Groups

BNBC stipulates that all structures in which sleeping accommodations are provided, excluding those that are classified as institutional occupancies, shall be classified as Use Group R-1, R-2, R-3, or R-4 and defined as follows (Section 310.0):

- Use Group R-1 structures include hotels, motels, boarding houses and similar buildings arranged for shelter and sleeping accommodations for more than five occupants who are primarily transient in nature, occupying the facilities for a period of less than 30 days.
- Use Group R-2 structures include all multiple-family dwellings having more than two dwelling units, except as provided for under Use Group R-3 structures, and shall also include all boarding houses and similar buildings arranged for shelter and sleeping accommodations in which the occupants are primarily not transient in nature.
- Use Group R-3 structures include all buildings arranged for occupancy as one- or two-family dwelling units, including not more than five lodgers or boarders per family and multiple single-family dwellings where each unit has an independent means of egress and is separated by a 2-hour fire separation assembly.
- Use Group R-4 structures include all detached one-and two-family dwellings not more than three stories in height, and the accessory structures as indicated in the one-and two-family dwelling code.

The reference to “detached one-and two-family dwellings” under Use Group R-4 refers to structures that are physically detached. According to BNBC, buildings separated by firewalls are not considered separate structures (see the discussion about BNBC’s definition of “building” and “structure” below).

#### DEFINITION OF “DWELLING UNIT”

The regulations define the term “dwelling unit” as:

“a single unit of residence for a family of one or more persons. Examples of dwelling units include: a single family home; an apartment unit within an apartment building; and in other types of dwellings in which sleeping accommodations are provided but toileting or cooking facilities are shared by occupants of more than one room or portion of the dwelling, rooms in which people sleep. Examples of the latter include dormitory rooms and sleeping accommodations in shelters intended for occupancy as a residence for homeless persons.”

24 CFR §.100.201.

It is clear from the discussion in the Preamble to the Regulations, found at 54 Fed. Reg. 3244 (Jan. 23, 1989), that the Department intended that each sleeping room intended for occupancy by a separate household in a building with shared toileting or kitchen facilities would be considered a separate dwelling unit, and that buildings with four or more of these sleeping accommodations are “covered multifamily dwelling units” for purposes of the Act.

Of course, a detached building that has four or more sleeping rooms with shared toileting or kitchen facilities and that is intended for occupancy by one household is not considered to be a “covered multifamily dwelling” under the Act. For example, a detached single family house with four bedrooms occupied by four or more persons related by birth or marriage is not a covered multifamily dwelling. In addition, a single family house occupied by four or more unrelated persons that functions as one distinct household, such as what is commonly referred to as a “group home” would not be considered to be a “covered multifamily dwelling” for purposes of the application of the design and construction requirements of the Act. This latter example is consistent with case precedent and the position of the Department and the Department of Justice with respect to the application of zoning and land use restrictions to single family group homes.

BNBC defines the term “dwelling unit” in Section 310.2, Definitions, as follows:

- A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

In general, BNBC (1107.4.2) applies the accessibility requirements in a Type B dwelling unit to occupancies in Group R-2 containing four or more dwelling units and in occupancies in Group R-3 where there are four or more dwelling units in a single structure. According to BOCA representatives, there is no circumstance in which BNBC includes a separate sleeping room as a “dwelling unit.”

Because sleeping accommodations for separate households in a structure are not covered under BNBC’s definition of “dwelling unit,” BNBC’s scoping provisions do not meet the requirements of the Act, the regulations, or the Guidelines because they do not include all of the dwelling units or residential structures that are covered under the Act, the regulations and Guidelines.

### **Recommendation Number 1:**

**It is recommended that BNBC be revised to modify the definition of “dwelling unit,” for purposes of the accessibility requirements at Chapter 11, as follows:**

**A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation. For purposes of Chapter 11, sleeping**

**accommodations intended for occupancy by separate households in structures in which the occupants of the sleeping accommodations share toileting or cooking facilities shall be considered to be separate dwelling units.**

BNBC does not require that common use spaces that serve accessible sleeping accommodations, or guestrooms, must be accessible.

**Recommendation Number 2:**

**It is recommended that BNBC add the following provision to 1107.4:**

- **Rooms and spaces available for the use of the residents of accessible sleeping accommodations shall be accessible. Accessible spaces shall include toilet and bathing rooms, kitchen, living and dining areas and any exterior spaces, including patios, terraces and balconies.**

“TRANSIENT HOUSING”

The Department considers length of stay as only one factor in determining whether a building is a “covered multifamily dwelling.” In the “Questions and Answers” in response to a question about coverage of continuing care facilities, the Department states:

Whether a facility is a “dwelling” under the Act depends on whether the facility is to be used as a residence for more than a brief period of time....Factors that the Department will consider in making such an examination include, but are not limited to: (1) the length of time persons stay in the project; (2) whether policies are in effect at the project that are designed and intended to encourage or discourage occupants from forming an expectation and intent to continue to occupy space at the project; and (3) the nature of the services provided by or at the project. 59 Fed. Reg. at 33364.

Homeless shelters are listed in the regulations and the Guidelines as residential uses that may be covered under the Act’s new construction accessibility requirements, if the shelter is intended as a residence. 56 Fed. Reg. at 9500; 54 Fed. Reg. at 3244; 24 CFR § 100.201. The factors that the Department uses to determine whether a homeless shelter is a “covered multifamily dwelling” are the factors set forth in the Questions and Answers.

In making a determination whether specific boarding houses, “corporate housing,” and similar uses are covered under the new construction accessibility requirements of the Act, the Department considers similar factors, such as: 1) whether the rental rate for the unit will be calculated based on a daily, weekly, monthly or yearly basis; 2) whether the terms and length of occupancy will be established through a lease or other written agreement; 3) what amenities will be included inside the unit, including kitchen facilities; 4) how the

purpose of the property will be marketed to the public; and 5) average or projected length of stay. With respect to this latter criterion, the Department has not adopted a “bright line” standard of a specified number of days.

According to Section 310.3 of the BNBC, Use Group R-1 structures include arrangements for shelter and sleeping accommodations for more than five occupants who are primarily transient in nature, occupying the facilities for a period of less than 30 days. All hotels and motels, for example, are considered R-1 occupancies because they are usually occupied for a period of less than 30 days. Boarding houses and homeless shelters are often occupied for periods of less than 30 days. If this is the case, then these transient boarding houses and homeless shelters are considered R-1 occupancies and are not covered under BNBC Section 1107.4.2, Accessible dwelling units. However, if boarding houses and homeless shelters are intended to be occupied for periods of more than 30 days, then they are considered R-2 occupancies.

Section 310.4.1, Dormitories, of the BNBC states that a dormitory facility which accommodates more than five persons more than 2½ years of age shall be classified as Use Group R-2 and required to comply with Section 1107.4.2, Accessible dwelling units, of the BNBC. However, if a dormitory is intended to be occupied for less than 30 days it is considered an R-1 occupancy and not required to comply with Section 1107.4.2, Accessible dwelling units.

In addition, as discussed above, boarding houses, homeless shelters, and dormitories that do not contain four or more “dwelling units” as defined by BNBC are not covered under Section 1107.4.2, Accessible dwelling units .

BNBC considers vacation timeshares to be “transient in nature” and classifies them as R-1 occupancies. As a result, vacation time-shares are not required to be accessible according to Section 1107.4.2, Accessible dwelling units. But see 54 Fed. Reg. at 3238; 56 Fed. Reg. at 8481.

Under the BNBC, in R-1 occupancies with sleeping accommodations, or guest rooms, and lodging houses and congregate residences with multiple bedrooms or spaces for more than six occupants, as opposed to “dwelling units,” only a specified number of sleeping accommodations, or guestrooms, are required to be accessible. (Sections 1107.4.1 and 1107.4.1.1).

### **Recommendation Number 3:**

**It is recommended that the definition of dwelling unit contained in Recommendation number 1 be adopted and that Section 310 of the code be modified as follows:**

- **310.3 Use Group R-1 structures: include hotels, motels, boarding houses and similar buildings arranged for shelter and sleeping accommodations for more than five occupants who are primarily transient in nature.**
- **Use Group R-2 structures include all multiple-family dwellings having more than two dwelling units, except as provided for under Use Group R-3 structures, and shall also include all hotels, motels, vacation time-shares, boarding houses and similar buildings arranged for shelter and sleeping accommodations in which the occupants are primarily not transient in nature.**

### CONTINUING CARE FACILITIES

The Act defines a “dwelling” as “any building, structure, or portion thereof which is occupied as, or designed or intended for occupancy as, a residence by one or more families....” 42 USC § 3602(b). Such a building may serve more than one purpose. Some buildings, known as continuing care facilities, residential care facilities, or assisted living facilities, serve both as a residence for their occupants and as a place where the occupants receive personal, medical or other support services.

As mentioned in the discussion of transient residential uses above, the Questions and Answers addressed the issue of whether the design and construction requirements of the Act apply to continuing care facilities which incorporate housing, health care and other types of services. That publication states in part:

The new construction requirements of the Fair Housing Act would apply to continuing care facilities if the facility includes at least one building with four or more dwelling units. Whether a facility is a “dwelling” under the Act depends on whether the facility is to be used as a residence for more than a brief period of time. As a result, the operation of each continuing care facility must be examined on a case-by-case basis to determine whether it contains dwellings.

59 Fed. Reg. at 33364.

According to BNBC, continuing care facilities may fall under Use Group I if they have more than five occupants. As a result, they may not be covered under Section 1107.4.2, Accessible dwelling unit, of the BNBC.

Section 308.2, Use Group I-1, is defined by BNBC as follows:

This use group shall include buildings and structures which house six or more individuals who, because of age, mental disability or other reasons, must live in a supervised environment but who are physically capable of responding to an emergency situation without personal assistance. Where accommodating persons of the above description, the following types of facilities shall be classified as I-1 facilities: board and care facilities, half-way houses, group homes, social rehabilitation facilities, alcohol and drug centers and convalescent facilities. A facility such as the above with five or less occupants shall be classified as a residential use group.

Section 308.3, Use Group I-2, is defined by BNBC as follows:

- This use group shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care on a 24-hour basis of six or more persons who are not capable of self-preservation. Where accommodating persons of the above description, the following types of facilities shall be classified as I-2 facilities: hospitals, nursing homes (both intermediate care facilities and skilled nursing facilities), mental hospitals and detoxification facilities. A facility such as the above with five or less occupants shall be classified as a residential use group.

#### **Recommendation Number 4:**

**It is recommended that the definition of “dwelling unit” contained in Recommendation Number 1 be adopted and that BNBC be revised as follows:**

**Modify the language of the charging paragraph of BNBC, 1107.4.2, Accessible dwelling units to include the following:**

**In occupancies in Use Group R-2 containing four or more dwelling units and in occupancies in Use Group R-3 where there are four or more dwelling units in a single structure, all dwelling units shall be a Type B dwelling units. In occupancies in Group I-1 where there are four or more dwelling units in a single structure, at least 4 percent, but not less than one, of the dwelling units shall be Type A and all other dwelling units shall be Type B. In nursing homes of Group I-2, at least 50 percent, but not less than one, of the dwelling units shall be Type A dwelling units and all other dwelling units shall be Type B. The requirements for Type B units shall not reduce the percentage or number of required Type A units.**

#### DEFINITION OF BUILDING AND STRUCTURE

BNBC defines Building and Structure as follows:

- **Building (Section 202.0)**  
Any structure occupied or intended for supporting or sheltering any occupancy. For application of the BNBC, each portion of a building which is completely separated from other portions by firewalls shall be considered as a separate building.
- **Structure (Section 202.0)**  
That which is built or constructed or a portion thereof.

In the definition of “covered multifamily dwellings,” the Guidelines contain the statement that: “Dwelling units within a single structure separated by firewalls do not constitute separate buildings.” 56 Fed. Reg. 44 at 9500. The Guidelines’ definition of “building” is a “structure, facility, or portion thereof that contains or serves one or more dwelling units.” 56 Fed. Reg. at 9500.

Section 1107.4.2 of BNBC requires that: “occupancies in Use Group R-3 where there are four or more dwelling units in a single structure” comply with the requirements for Type B dwelling units, with listed Exceptions. Exceptions 1, 3, and 4 use the term “building” rather than “structure.” In Section 310.5 of BNBC, use group R-3 is defined to include “...all buildings arranged for occupancy as one- or two-family dwelling units, including not more than five lodgers or boarders per family and multiple single-family dwellings where each unit has an independent means of egress and is separated by a 2-hour fire separation assembly.”

For the purposes of accessibility, BOCA’s intent is to eliminate the firewall criteria when scoping dwelling units in “structures” that are required to be accessible and not dwelling units in “buildings.” Since a structure includes buildings and buildings separated from others by firewalls are separate buildings, a reference to “structure” includes all buildings separated by firewalls which meets the requirements of the Guidelines. However, this interpretation may not be sufficiently clear.

#### **Recommendation Number 5:**

**To ensure that this firewall criteria is eliminated for the purpose of accessibility, it is recommended that BNBC modify Section 1107.4.2 by eliminating any reference to the term “building” and replacing it with the term “structure.”**

#### GROUND FLOOR

BNBC defines Ground Floor Dwelling Unit as follows:

- **Ground Floor Dwelling Unit (Section 1102.0)**

For application of the accessibility requirements, a ground floor dwelling unit is a dwelling unit with a primary entrance and habitable space at ground level or the lowest floor containing dwelling units, whether that floor is at or above grade.

The regulations define “ground floor” as a “floor of a building with a building entrance on an accessible route. A building may have one or more ground floors.” 24 CFR § 100.202. The Guidelines further state: “Where the first floor containing dwelling units in a building is above grade, all units on that floor must be served by a building entrance on an accessible route. This floor will be considered to be a ground floor.”56 Fed. Reg. at 9500.

If a building is built into a hill, for example, and the front and the back of the building have entrances to dwelling units at grade, but at different elevations, the ground floor dwelling units on both levels are covered under the Guidelines. See the Questions and Answers about the Guidelines question number 6. 59 Fed. Reg. at 33364.

In Section 1107.4.2, BNBC requires that all dwelling units in Use Group R-2 containing four or more dwelling units, and in Use Group R-3 where there are four or more dwelling units in a single structure be Type B dwelling units. However, this section provides the following exception to this requirement:

The requirement for Type B dwelling units shall not apply to dwelling units that are both located above the first level containing dwelling units and that are not provided with elevator access.

According to BNBC, in the example above, the level at the lowest elevation is the only level required to have accessible dwelling units. Because the Guidelines clearly state that a ground floor is a floor of a building with a building entrance on an accessible route and that there can be more than one ground floor, it is clear in the example above that both levels of that building built into the hill are considered “ground floors” and must comply with the Guidelines.

BNBC, Section 1102, defines the term “ground floor dwelling unit” as a dwelling unit with a primary entrance and habitable space at ground level or the lowest floor containing dwelling units, whether that floor is at or above grade. However, BNBC does not refer to the term in its provisions for accessible dwelling units (Section 1107.4.2, Accessible dwelling units). It is clear that ground floor units can be at or above grade, but it is unclear that there can be more than one ground floor, or ground floor units on different levels of a building.

## Recommendation Number 6:

It is recommended that BNBC modify its definition of “ground floor dwelling unit” and refer to the term “ground floor” in Exception 2, Section 1107.4.2, Accessible dwelling units; as follows:

- The term “ground floor dwelling unit” should be deleted from Section 1102.0 *Definitions* and replaced with the term and definition of “ground floor” as follows:

**Ground floor:** A floor of a structure with a building entrance on an accessible route. A building may have one or more ground floors. Where the first floor containing dwelling units in a building is above grade, all units on that floor must be served by a building entrance on an accessible route. This floor will be considered to be a ground floor.

- Section 1107.4.2, Exception 2, should be modified as follows:

**Where no elevator service is provided in a structure, the requirement for Type B dwelling units shall not apply to dwelling units that are not ground floor dwelling units.**

By defining the term ground floor and referring to it in its scoping provisions for accessible dwelling units, it becomes clear exactly which floors of a structure without elevator service are considered ground floors and thus covered under the Guidelines. For example, under the Guidelines the first level of living above retail, parking, commercial space, private garages, etc. in buildings without elevators is the ground floor and all units on that floor must be designed with an accessible entrance on an accessible route. 59 Fed. Reg. at 33364. BOCA intends for these same units to be covered under its accessibility provisions by referring to “first level containing dwelling units” in Section 1107.4.2, Exception 2. However, this will be made clear by following the modification to the definitions and Exception 2 as noted above.

### BUILDINGS CONNECTED BY BREEZEWAYS OR STAIRWAYS

The regulations define a building as “a structure, facility or portion thereof that contains or serves one or more dwelling units.” 24 CFR § 100.201. Based on that definition, a structure with three dwelling units that is structurally connected to another structure with three units, by a stairway or breezeway, for example, is considered one covered multifamily dwelling with six dwelling units.

In most cases, under BNBC, two structures that are connected by a breezeway or stairway, for example, and share the same roof as the breezeway or stairway are also

considered one building. As a result, if the total units in both structures equals four or more, then the building must comply with the BNBC's accessibility provisions.

It appears, however, that in cases where the breezeway or stairway that structurally connects both buildings does not provide the only means of egress and does not share the same roof as the two structures, whether or not it is considered one building must be determined by BOCA on a case-by-case basis. In addition, in some cases, BOCA considers walkways, breezeways, and stairways accessory structures and not integral to the building. If they are determined to be accessory structures, each building that they connect is examined separately. As a result, BNBC may not meet the requirements of the Guidelines in terms of covered units connected by breezeways or stairways.

#### **Recommendation Number 7:**

**It is recommended that BNBC be modified to include a revision to Section 3106.1.1, Separate structures, as follows:**

**3106.1.1 Separate structures. Connected buildings shall be considered to be separate structures. For purposes of accessibility as required by Chapter 11, buildings or structures structurally connected to other buildings or structures by pedestrian walkways, breezeways, or stairways shall be considered one structure.**

#### MULTISTORY DWELLING UNITS

The regulations determined that a multistory dwelling unit that does not have an elevator internal to the unit that is located in a building that does not have an elevator is not a "covered multifamily dwelling" because the entire unit is not on the ground floor. 54 Fed. Reg. at 3244. The Guidelines define a "multistory dwelling unit" as a dwelling unit with finished living space located on one floor and the floor or floors immediately above or below it. 56 Fed. Reg. at 9500. A "single-story dwelling unit is defined as a dwelling unit with all finished living space located on one floor. 56 Fed. Reg. at 9501.

BNBC includes the following definitions in Section 1102.1:

- "Multistory dwelling unit" For application of the accessibility requirements, this term shall mean a dwelling unit with habitable or bathroom space located on more than one story.

BNBC defines "habitable space" (Section 1202) as a space in a structure for living, sleeping, eating or cooking. Bathrooms, toilet compartments, closets, halls, storage or utility spaces and similar areas are not considered habitable spaces.

According to BNBC's definition of "multistory dwelling unit," a unit is considered multistory if one level contains living or "habitable" space and the floor next above or

below contains only a bathroom. According to the definitions in the Guidelines, and the factors outlined above that the Department would consider in making a determination as to whether or not the unit is a multistory unit, a two-level unit with only a bathroom, or only a bathroom and storage space on one level, is not a multistory dwelling unit because finished living space must be located on both floors. 56 Fed. Reg. at 9500-01. Neither bathroom space alone nor a combination of bathroom space and storage space constitute living space. BNBC's definition of "multistory dwelling unit" does not meet the Act, regulations or Guidelines.

### **Recommendation Number 8:**

**As a result, it is recommended that the reference to "or bathroom space" in the BNBC's definition of "multistory dwelling unit" be deleted as follows:**

- **Section 1102, Definitions:**  
**Multistory dwelling unit: For application of the accessibility requirements, this term shall mean a dwelling unit with habitable space located on more than one story.**

### SINGLE-STORY UNIT WITH A LOFT/MEZZANINE

Under Requirement 4 of the Guidelines, a single-story unit may have a loft without the requirement that there be an accessible route to the loft; provided that all other parts of the dwelling unit are on an accessible route. 56 Fed. Reg. at 9507. Only one loft, or raised or sunken area, can be provided within a room and it cannot interrupt the accessible route throughout the remainder of the dwelling unit. These "special design features" cannot contain toilet facilities. 56 Fed. Reg. at 9507.

BNBC does not define or use the term loft, and instead uses the term "mezzanine," and defines this term as follows:

Section 502: "Mezzanine" means an intermediate level or levels between the floor and ceiling of any story with an aggregate floor area of not more than one-third of the area of the room in which the level or levels are located.

BNBC Section 1107.4.3, Accessible route, includes an exception that states that mezzanines, and raised or sunken floors in Type B dwelling units are not required to be accessible provided they do not contain or interrupt the accessible route to the only bathing facility, lavatory, water closet or living, eating, sleeping or cooking areas in the dwelling unit. This provision implies that if there are two bathrooms or sleeping areas within a Type B unit, a mezzanine or raised or sunken area is permitted to interrupt the route to one bathroom or sleeping area, which does not meet the Guidelines.

BNBC does not state that only one of these “special design features” is permitted within a room in a Type B dwelling unit, and does not require that if a mezzanine has an enclosed area or a toilet or bathing facility then it must be located on an accessible route.

**Recommendation Number 9:**

**To address these inconsistencies it is recommended that BNBC delete Exception 2, Section 1107.4.3 as currently written and replace it with the following language:**

- **Within Type B dwelling units one of the following is not required to be on an accessible route:**
  1. **A raised floor area in a portion of a living, dining, or sleeping room; or**
  2. **A sunken floor area in a portion of a living, dining, or sleeping room; or**
  3. **A mezzanine that does not have plumbing fixtures or an enclosed habitable space.**

**V. SEVEN SPECIFIC DESIGN AND CONSTRUCTION REQUIREMENTS**

The Guidelines specify seven requirements relating to accessibility which reflect the language of the Act and the regulations. Compliance with the provisions of the Guidelines constitutes a safe harbor for compliance with the requirements of the Act. The Act itself references the ANSI A117.1 standard as a means for meeting the technical requirements of the Act. As discussed in the Department’s policy statement, at the time the Act was passed and the Guidelines were written, ANSI A117.1-1986 was in effect. Since that time, there have been two additional editions of ANSI A117.1 published, the CABO/ANSI A117.1 in 1992 and the ICC/ANSI A117.1 in 1998.

The Department believes that compliance with either of these newer versions of the ANSI-A117.1 constitutes an additional safe harbor in terms of demonstrating compliance with the technical provisions of the Act’s accessibility requirements. It is, of course, still necessary to refer to the Act and the regulations, or the Guidelines, for implementing the scoping requirements. The Department believes that Code officials may rely on the edition of ANSI A117.1 that has been adopted by the code organization or State or local jurisdiction, if it has been adopted without modifications and is uniformly enforced.

BNBC utilizes the technical criteria contained in CABO/ANSI A117.1-1992, and thus, HUD considers any BNBC requirements that reflect that criteria to meet the requirements of the Act, even where they differ in small part from the ANSI-1986 criteria.

## **REQUIREMENT 1: ACCESSIBLE BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE.**

The Guidelines set forth specifications to implement the requirements of 24 CFR § 100.205(a) that all covered multifamily dwellings shall be designed and constructed to have at least one building entrance on an accessible route, unless it is impractical to do so because of terrain or unusual characteristics of the site. 56 Fed. Reg. at 9503.

Requirement 1 of the Guidelines includes specifications for providing an accessible entrance on an accessible route, and explains that the requirements apply to a single building on a site and to multiple buildings on a site. In addition, Requirement 1 includes specifications for determining site impracticality based on terrain and unusual site characteristics. 56 Fed. Reg. at 9503-04. However, the Guidelines specify that covered multifamily dwellings with elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route, regardless of terrain or unusual characteristics of the site. 56 Fed. Reg. at 9504.

In conducting this analysis, SWA and the Department noted that BNBC apparently applies the site impracticality test to both Type A and Type B dwelling units. The inclusion of Type A units in the scoping of application of the site impracticality test may conflict with the requirements of Section 504 of the Rehabilitation Act of 1973 in multifamily residential projects receiving federal financial assistance, or with the requirements of the Americans with Disabilities Act of 1990 in multifamily residential projects constructed by governmental entities.

BNBC's provisions relating to an accessible building entrance on an accessible route are consistent with the Guidelines with the following exceptions.

### SITE IMPRACTICALITY DUE TO TERRAIN

The Guidelines set forth two tests to assess site impracticality due to terrain-- the individual building test and the site analysis test. 56 Fed. Reg. at 9503-04.

**Individual Building Test** -- This test may be used for all sites, but must be used for sites with a single building having a common entrance for all units. 56 Fed. Reg. at 9503-04.

**Site Analysis Test** --May be used for all sites, including those with multiple buildings and single buildings with multiple entrances serving individual dwelling units or clusters of dwelling units except sites with a single building having a common entrance for all units. This test has three steps. 56 Fed. Reg. at 9503-04.

**Step A** requires the calculation of the percentage of total buildable area of the undisturbed site with a natural slope of less than 10%. A professional licensed engineer, landscape architect, architect or surveyor must certify the analysis of the slope. 56 Fed. Reg. at 9504.

**Step B** states that the percentage of ground floor units that must be made accessible should be equal to the total buildable area of the undisturbed site (not including floodplains, wetlands, or other restricted areas) that has an existing natural grade of less than 10% slope (previously determined in Step A). 56 Fed. Reg. at 9504.

**Step C** requires that in addition, **all** ground floor units in a building, or ground floor units served by a particular entrance, shall be made accessible if the entrance to the units is on an accessible route, defined as a walkway with a slope between the planned entrance and a pedestrian or vehicular arrival point that is no greater than 8.33%. In some cases, application of Step C will result in a greater number of accessible units being required. 56 Fed. Reg. at 9504.

For example, according to the Guidelines' site analysis test for determining impracticality due to terrain, if 60% of the total area of an undisturbed site has an existing natural grade of less than 10% slope, then 60% of the ground floor units are required to be served by an accessible entrance on an accessible route. If we construct, two buildings not served by elevators on that site, each with 20 ground floor units for a total of 40 ground floor dwelling units on the entire site, then 24 ground floor dwelling units (60% of ground floor units) must have an accessible entrance on an accessible route. In addition, according to step C of the site analysis test, all ground floor units in the building, or ground floor units served by a particular entrance, shall be made accessible if the entrance to the units is on an accessible route.

#### VariANCES Related to the Site Analysis Test

Section 1107.4.2, Exception 3, attempts to correspond to Steps A and B of the site analysis test. However, it provides that where multiple buildings on a site are each not equipped with elevators, the percentage of required ground floor Type B dwelling units shall be equal to the percentage of buildings on the entire site having site grades of 10 percent or less, and not the percentage of buildable area having site grade of less than 10 percent which is required by the Guidelines. 56 Fed. Reg. at 9504. Thus, BNBC does not meet the specifications of the Guidelines.

BNBC also fails to provide equivalent language to Step C -- i.e., it does not require that, in addition to the percentage of ground floor units required to be accessible, all ground floor units in buildings, or ground floor units served by a particular entrance, must be made accessible if the entrance to the units is on an accessible route. 56 Fed. Reg. at 9504. Therefore, BNBC does not meet this aspect of the Guidelines.

In addition, according to the Guidelines, regardless of site considerations, an accessible entrance served by an accessible route is practical whenever an elevator connects parking with a ground floor, in which case all ground floor units are covered, or whenever an elevated walk with a slope no greater than 10% is planned between an entrance and a

pedestrian or vehicular arrival point. 56 Fed. Reg at 9504. BNBC does not include any language that reflects these requirements. As a result, BNBC does not meet the provisions of the Guidelines on these issues as well.

**Recommendation Number 10:**

**In order to address these inconsistencies, it is recommended that Exception 3, Section 1107.4.2 be revised as follows:**

**Where multiple structures on a site are each not equipped with elevators, the percentage of required ground floor Type B dwelling units shall be equal to the percentage of the entire site having grades, prior to development, which are less than 10%. In addition to the percentage established, all ground floor units in a structure, or ground floor units served by a particular entrance, shall be Type B if the entrance to the units is on an accessible route, defined as a walkway with a slope between the planned entrance and a pedestrian or vehicular arrival point that is not greater than 8.33%. In no case shall the number of Type B dwelling units be less than 20 percent of the ground floor dwelling units on the entire site. When a structure is equipped with an elevator which provides access to the ground floor only, or when an elevated walk is planned between a building entrance and a pedestrian or vehicular arrival point and the planned walkway has a slope no greater than 10%, all ground floor units shall comply with the requirements for Type B dwelling units. The walkway in such cases shall be reduced to no greater than 8.33%.**

Variance Related to Buildings with Elevators

According to the Guidelines, buildings with elevators must provide an accessible entrance on an accessible route regardless of site impracticality. 56 Fed. Reg. at 9504. BNBC does not reflect this requirement in Section 1107.4.2, Exception 4.

**Recommendation Number 11:**

**It is recommended that Exception 4, Section 1107.4.2 be modified so that the Exception does not apply to buildings with elevators. It also is recommended that the term “building” be replaced with the term “structure.”**

**In areas where structures are required to be constructed in accordance with Section 3107.0, the required number of Type A and Type B dwelling units shall not apply to a site where the lowest floor or the lowest structural building members of non-elevator buildings is required to be at or above the base flood elevation resulting in...**

**REQUIREMENT 2: ACCESSIBLE AND USABLE PUBLIC AND COMMON USE AREAS.**

The Act and the regulations provide that covered multifamily dwellings with a building entrance on an accessible route be designed and constructed in a manner so that the public and common use areas are readily accessible to and usable by people with disabilities. 42 USC § 3604 (f)(3) (C) (i); 24 CFR § 100.205 (c) (1). The Guidelines' Requirement 2 cites the appropriate section of the ANSI A117.1 – 1986 Standard for the technical provisions for 15 accessible elements or spaces, and describes the application of the specifications including modifications to the referenced Standard. 56 Fed. Reg. at 9505. Following are the 15 basic elements or spaces for accessible and usable public and common use areas or facilities:

- Accessible routes
- Protruding objects
- Ground and floor surface treatments
- Parking and passenger loading zones
- Curb ramps
- Ramps
- Stairs
- Elevators
- Platform lifts
- Drinking fountains and water coolers
- Toilet rooms and bathing facilities
- Seating, tables, or work surfaces
- Places of assembly
- Common-use spaces and facilities
- Laundry rooms

56 Fed. Reg. at 9505.

When a variance is identified in the BNBC that does not meet the requirements of the Guidelines for each of the 15 elements or spaces above, they are noted below.

#### SCOPING OF ACCESSIBILITY REQUIREMENTS FOR PUBLIC AND COMMON USE FACILITIES

As stated above, the Act, regulations, and Guidelines require accessible public and common use areas for all covered multifamily dwellings. 42 U.S.C. § 3604 (f) (3) (c) (i); 24 C.F.R. § 100.205 (c) (1); Section 1107.4.2 of the BNBC states that in occupancies in Use Group R-2, all rooms and spaces available to the general public and all such spaces available for the use of the residents serving accessible dwelling units shall be accessible. This provision does not include Use Group R-3 in that sentence. However, in Section 1107.4.3, Accessible Route, BNBC states the following:

- In occupancies in Use Group R-2 and R-3, at least one accessible route shall connect accessible building or facility entrances with all accessible dwelling units within the building or facility and with those exterior and interior spaces and facilities that serve the accessible dwelling units.

It is clear from Section 1107.4.3 that accessible routes to public and common areas are intended to be required in both Use Groups R-3 and R-2.

#### **Recommendation Number 12:**

**For clarity, it is recommended that Section 1107.4.2 be modified to include Use Group R-3 as follows:**

- **Section 1107.4.2, Accessible dwelling units:**

**...In occupancies in Use Group R-2 and R-3, all rooms and spaces available to the general public and all such spaces available for the use of the residents serving accessible dwelling units shall be accessible.**

#### ACCESSIBLE ROUTE(S)

Requirement 1, paragraph (5) of the Guidelines states that if the slope of the finished grade between covered multifamily dwellings and a public or common use facility exceeds 8.33%, or where other physical barriers or legal restrictions, all of which are outside the control of the owner, prevent the installation of an accessible pedestrian route, an acceptable alternative is to provide access via a vehicular route, so long as necessary site provisions such as parking spaces and curb ramps are provided at the public or common use facility. 56 Fed. Reg. at 9504.

BNBC, Section 1107.4.3 contains language which is comparable to the Guidelines with one exception. That section states:

If the slope of the finished ground level between accessible facilities and buildings exceeds one unit vertical in 12 units horizontal, or where physical barriers prevent the installation of an accessible route, a vehicular route with parking at each accessible facility or building is permitted in place of the accessible route.

BNBC does not include language making it clear that accessible parking and curb ramps must be available at the accessible facility if access is provided by a vehicular route. In addition, reference must be made to “structures” and not “buildings” (see discussion of the definition of “building” above.)

### **Recommendation Number 13:**

**It is recommended that BNBC, Section 1107.4.3, Exception 1, be modified to include the following language:**

**If the slope of the finished ground level between accessible facilities and structures exceeds one unit vertical in 12 units horizontal (1:12), or where physical barriers prevent the installation of an accessible route, a vehicular route with accessible parking and curb ramps at each public and common use facility is permitted in place of the accessible route.**

### Headroom

The Guidelines refer to headroom requirements through their adoption of the ANSI A117.1-1986 section on Accessible routes and its subsection, 4.3.5. which references headroom requirements. 56 Fed. Reg. at 9505. BNBC does not include headroom requirements in its referenced technical provisions for accessible routes. However, it does include headroom requirements in the provisions for protruding objects, Section 1005.3.

### **Recommendation Number 14:**

**It is recommended that BNBC reference the headroom requirements stipulated in Section 1005.3, in Section 1107.4.3, Accessible route.**

### PARKING AND PASSENGER LOADING ZONES

The Guidelines provide that accessible parking on a route accessible to persons in wheelchairs be provided for at least 2% of the covered dwelling units, and that there be accessible visitor parking sufficient to provide access to grade level entrances of covered multifamily dwellings, and accessible parking at facilities. 56 Fed. Reg. at 9505.

Section 1105, Parking Facilities, of the BNBC requires that, where parking is provided, accessible parking spaces complying with CABO/ANSI A117.1 be provided in compliance with Table 1105.1, except as required by Sections 1105.2 and 1105.3. Section 1105.2, Use Group R-2, of Section 1105, Parking Facilities, requires that 2% of parking spaces provided for occupancies in use Group R-2 which are required to have accessible dwelling units shall be accessible. Section 1105.3 does not apply to Use Groups R-2 or R-3 and is not applicable. Table 1105.1 stipulates the minimum number of accessible spaces required according to the total number of parking spaces provided. Since 1105.2 clearly applies to Use Group R-2 and not R-3, one must refer to Table 1101.1 for the required minimum number of accessible spaces required for Use Group R-3.

**Recommendation Number 15:**

**It is recommended that Section 1105.2, Use Group R-2, be modified to include R-3 occupancies, as follows:**

**Section 1105.2, Use Group R-2 and R-3**

**Two percent of parking spaces provided for occupancies in Use Group R-2 and Use Group R-3 which are required to have accessible dwelling units shall be accessible. Accessible visitor parking sufficient to provide access to grade level entrances for Type A and Type B dwelling units and accessible parking at facilities serving accessible structures shall be provided.**

**Section 1105.1, Required, should be modified to:**

**Where parking is provided, accessible parking spaces complying with CABO A117.1 listed in Chapter 35 shall be provided in compliance with Sections 1105.2 and 1105.3.**

By modifying Section 1105.2 to include the reference to the R-3 Use Group, Table 1105.1 (required minimum number of accessible spaces for R-3 dwellings) and any reference to it may be eliminated.

Questions and Answers 14c states that at least 2% of parking garages where there are several individual garages grouped together either in a separate area of the building (such as at one end of the building, or in a detached building), for assignment or rental to residents, must be at least 14'2" wide and have a vehicular door at least 10' wide. 59 Fed. Reg. at 33366.

BNBC does not provide minimum requirements for these garages, and therefore, does not meet this aspect of the provisions of the Guidelines.

In addition, the Questions and Answers provide that parking shall be provided that is on the same terms and with the full range of choices (e.g., surface parking or garage) that is provided for other residents. 59 Fed. Reg. at 33366.

BNBC does not include comparable language in Section 1105, Parking Facilities, and therefore, this aspect of the BNBC does not meet the provisions of the Guidelines.

**Recommendation Number 16:**

**In order to address these two inconsistencies, it is recommended that BNBC include a reference to R-3 in Section 1105.2, Group R-2, and modify that Section as follows:**

**At least 2% of parking garages provided for R-2 and R-3 occupancies required to have accessible dwelling units where there are several individual garages grouped together, either in a separate area of a building or in a detached building, for assignment or rental to residents, must be at least 14'2" wide and have a vehicular door at least 10' wide....**

**...Where accessible parking spaces are provided, they shall be on the same terms and with the full range of choices (surface parking or garage) that are provided for other residents.**

It is not clear in BNBC whether passenger loading zones are required to comply with the requirements of the Guidelines.

**Recommendation Number 17:**

**In order to ensure that passenger loading zones comply with the requirements of the Guidelines, it is recommended that BNBC add a provision under Section 1105 which states the following:**

**When provided, passenger loading zones shall be located on an accessible route. Passenger loading zones shall be designed and constructed in accordance with CABO/ANSI A117.1 – 1992.**

Table 1105.1, Accessible Parking Spaces includes a note that states “the accessible space shall be provided but is not required to be designated as reserved for physically disabled.” In addition, Section 1109.2, Signs, indicates that elements shall be identified by the International Symbol of Accessibility at four locations. One of which states that it is required at accessible parking spaces required by 1105.1 (Parking Facilities) except where the total parking spaces provided are five or less. This does not meet the requirements of the Guidelines which require signage at all accessible parking spaces.

**Recommendation Number 18:**

**It is recommended that BNBC delete this language from provision 1 under Section 1109.2. If deleted, the note in Table 1105.1 will no longer apply.**

**STAIRS**

The Guidelines require that accessibility be provided on stairs located along accessible routes connecting levels not connected by an elevator. 56 Fed. Reg. at 9505. For example, a ground floor entry might have steps up to a bank of mailboxes, with a ramp located beside the steps. The stairs in this case are required to meet the ANSI A117.1 specification, since they will be used by people with disabilities for whom stairs are more usable than ramps. However, stairs are not a component of an accessible route.

There are variances between the provisions of BNBC and the Guidelines' requirements for stairs along accessible routes regarding tread and riser measures, and handrails for example.

**Recommendation Number 19:**

**It is recommended that BNBC include a provision for stairways under Section 1108, Building Features and Facilities as follows:**

- **Stairways**

**Stairways in structures, or portions of structures, located along accessible routes not connected by an elevator shall be designed and constructed to comply with CABO/ANSI A117.1 - 1992.**

ELEVATORS

The Guidelines require that elevators on accessible routes be accessible according to the technical specifications of ANSI A117.1, Section 4.10, Elevators. Section 1108.4 of BNBC, Elevators and Stairway and Platform Lifts, states that all passenger elevators on an accessible route shall be accessible. It also states that elevators required to be accessible shall be designed and constructed to comply with Section 3006 which references conformance with CABO/ANSI A117.1–1992.

The technical specifications for elevators required by both the Guidelines and BNBC are equivalent. However, BNBC provides an exception to Section 1108.4, Elevators, that exempts elevators within dwelling units from being accessible. This does not meet the requirements of the Guidelines because elevators within multistory units must provide accessibility.

**Recommendation Number 20:**

**It is recommended that exception to 1108.4 be eliminated.**

**REQUIREMENT 3: USABLE DOORS.**

The Act and regulations require that all doors designed to allow passage into and within a covered dwelling unit be sufficiently wide to allow passage by persons in wheelchairs. 42 U.S.C. § 3604 (f)(3)(C)(ii); 24 C.F.R § 100.205(c)(2). The Guidelines set forth criteria to meet this requirement. The Guidelines also set forth additional guidance regarding doors that are a part of an accessible route in the public and common use areas of multifamily dwellings and to doors into and within individual dwelling units. 56 Fed. Reg. at 9506.

The Guidelines provide the following:

On accessible routes in public and common use areas, and for primary entry doors to covered units, doors that comply with ANSI A117.1 4.13 will meet the Act's requirements for usable doors; and

Within individual dwelling units, doors intended for user passage through the unit which have a clear opening of at least 32 inches nominal width when the door is open 90 degrees, measured between the face of the door and the stop, would meet the Act's requirement.

The Department has determined that BNBC meets the requirements of the Act, regulations, and the Guidelines for usable doors.

#### **REQUIREMENT 4: ACCESSIBLE ROUTE INTO AND THROUGH THE COVERED DWELLING UNIT.**

The Act and regulations require that all covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed in such a manner that all premises within covered multifamily dwelling units contain an accessible route into and through the covered dwelling unit. 42 U.S.C. § 3604 (f)(3)(C)(iii)(I); 24 C.F.R § 100.205 (c)(3)(i). Requirement 4 of the Guidelines sets forth criteria to meet this requirement . 56 Fed. Reg. at 9509-10. BNBC meets the provisions of the Act, regulations, and Guidelines with respect to Requirement 4, except the following.

#### **MULTISTORY UNITS IN ELEVATOR BUILDINGS**

Among the criteria in Requirement 4 is the requirement that in multistory dwelling units in buildings with elevators, the story of the unit that is served by the building elevator is the primary entry to the unit. 56 Fed. Reg. at 9507.

BNBC, Section 1107.4.2, provides the following exceptions to the requirement for Type B units as follows:

In buildings without elevators, multistory dwelling units are not required to comply with the requirements for Type B units. Where a multistory dwelling unit is provided with elevator service to only one floor, the floor provided with elevator service shall comply with the requirements for a Type B dwelling unit and a toilet facility shall be provided on that floor.

#### **Recommendation Number 21:**

**It is recommended that BNBC modify Section 1107.4.2, Exception 1, as follows:**

**In buildings without elevators, multistory dwelling units are not required to comply with the requirements for Type B dwelling units. Where a multistory dwelling unit is provided with elevator service to only one floor, the floor**

**provided with elevator service the floor provided with elevator service shall be the primary entry to the unit, shall comply with the requirements for Type B dwelling units and a toilet facility shall be provided on that floor.**

**REQUIREMENT 5: LIGHT SWITCHES, ELECTRICAL OUTLETS, THERMOSTATS AND OTHER ENVIRONMENTAL CONTROLS IN ACCESSIBLE LOCATIONS.**

The Act and regulations require that all covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed so that all premises within the covered units contain light switches, electrical outlets, thermostats, and other environmental controls in accessible locations. 42 USC §.3604 (f)(3)(C)(iii)(II); 24 CFR § 100.205.(c)(3)(ii). Requirement 5 of the Guidelines sets forth criteria to meet these requirements. 56 Fed. Reg. at 9507. BNBC meets the provisions of the Act, regulations, and Guidelines with respect to Requirement 5.

**REQUIREMENT 6: REINFORCED WALLS FOR GRAB BARS.**

Requirement 6 of the Guidelines sets forth technical specifications to meet 42 U.S.C. Section 3604(f)(3)(C)(iii)(III), 24 C.F.R. § 100.205(c)(3)(iii) which specifies that all covered multifamily dwellings with a building entrance on an accessible route shall be designed and constructed so that all premises within the covered units contain reinforcements in bathroom walls to allow later installation of grab bars around toilet, tub, shower stall and shower seat, where such facilities are provided. 56 Fed. Reg. at 9509-10. BNBC refers to the International Plumbing Code – 1995, for the technical specifications for reinforcement in walls for grab bars.

Although it is the intent of the International Plumbing Code – 1995 to require grab bar reinforcement at fixtures located away from walls, sunken or raised tubs for example, one cannot make that clear determination.

**Recommendation Number 22:**

**It is recommended that BNBC add an exception under section 1108.2, Toilet and bathing facilities as follows:**

- **Section 1108.2 Toilet and bathing facilities:**  
**Within dwelling units required by 1107.4.2 to be accessible, alternative reinforcement complying with CABO/ANSI A117.1 - 1992 4.24 2.5 and 4.24.3 shall be provided for the mounting of grab bars where fixtures are located away from walls.**

**REQUIREMENT 7: USABLE KITCHENS AND BATHROOMS.**

The Act and regulations provide that all covered multifamily dwellings with a building entrance on an accessible route shall be designed to have usable kitchens and bathrooms such that an individual in a wheelchair can maneuver about the space. 42 USC § 3604 (f)(3)(C)(iii)(IV); 24 CFR § 100.205 (c)(3)(iv). Requirement 7 of the Guidelines sets forth technical criteria to meet those requirements. 56 Fed. Reg. at 9511-15.

### Usable Kitchens

The Guidelines address a parallel approach to kitchen sinks in Requirement 7 at 56 Fed. 9511. The parallel approach to the sink is addressed in Figure 7(c). 56 Fed. Reg. at 9514. The ANSI A117.1 – 1986 standard requires, with respect to sinks and lavatories, a forward approach with clear floor space below, and illustrates the forward approach centered on the sink/lavatory. (ANSI A117.1 1986, Fig.32 on page 50) The Department's Guidelines allowed a departure from the ANSI standard. The Guidelines permit the clear floor space to be designed for a parallel position. 56 Fed. Reg. at 9511-12. While the Guidelines only show the clear floor space centered on the lavatory [Fig. 7 (c)], it is equally applicable to the sink.

The International Plumbing Code – 1995 which provides the technical provisions for Type B kitchens does not require that the parallel approach to sinks shall be centered on the sink which does not meet the requirements of the Guidelines.

### **Recommendation Number 23:**

**It is recommended that BNBC add an exception to Section 1108.3, Kitchens, as follows:**

- **Exception: If a parallel approach is provided at the sink, it shall be centered on the sink.**

### Usable Bathrooms

The Guidelines provide two options for designing accessible bathrooms. 56 Fed. Reg. at 9511. The first option requires a minimal level of accessibility. This option requires that walls be reinforced for grab bars and sufficient maneuvering space be provided within the bathroom for a person using a wheelchair or other mobility aid to enter, close the door, use the fixtures, reopen the doors and exit. 56 Fed. Reg. at 9511.

The second option for designing accessible bathrooms provides a greater level of accessibility than that provided by the first option. 56 Fed. Reg. at 9511. The second option requires reinforced walls for grab bars, clear space at specific locations within the bathroom to permit use of the fixtures, and specific clearances for fixtures.

According to the Guidelines, only bathrooms on the accessible level are subject to the requirements. If a powder room is the only facility provided on the accessible level of a

multistory dwelling unit; it must comply with the first or second option for designing accessible bathrooms and have reinforcement for grab bars. 56 Fed. Reg. at 9511.

As discussed in reference to kitchens above, the Guidelines require the centering of the parallel approach on the lavatory. 56 Fed. Reg. at 9512. The International Plumbing Code – 1995 does not require the centering of the parallel approach on the lavatory basin which does not meet the requirements of the Guidelines.

**Recommendation Number 24:**

**It is recommended that BNBC add an exception under Section 1108.2 as follows:**

- Exception: If a parallel approach is provided at the lavatory, it shall be centered on the lavatory.**