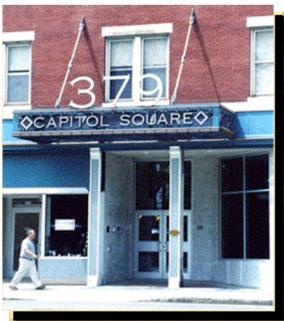


Achieving Access and Function in Affordable Housing in Massachusetts

Part One: A Developer's Overview



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BACKGROUND

The goal of *Achieving Access and Function in Affordable Housing in Massachusetts* is to assist developers and architects in achieving full compliance with all requirements for accessible design and simultaneously enhancing their developments with universal design features for residents and visitors.

Achieving Access and Function in Affordable Housing in Massachusetts will:

- (1) Provide a straight-forward comparison of the four applicable accessible design standards;
- (2) Help developers and architects determine, based on a development's funding sources, which accessible design standards are applicable; and
- (3) Help developers make their projects eligible for Community Based Housing funds by making them more visitable and functional for people with disabilities.

Achieving Access and Function in Affordable Housing in Massachusetts is provided in two parts. *Part One: A Developer's Overview* provides an overview of the civil rights laws which require accessibility, which accessible design standards are triggered by various affordable housing programs, and how to make housing for people with disabilities more usable. *Part Two: An Architect's Tool* provides a detailed comparison of the state and federal accessible design requirements and specific design suggestions for enhancing a development's usability by people of all ages and abilities.

The hope is that the information in this guide will result not only in better compliance with accessible design requirements but also more choices for people with disabilities to live in communities of visitable and universally-designed housing.

OVERVIEW OF ACCESSIBLE DESIGN AND CONSTRUCTION REQUIREMENTS

Accessible Design Requirements

There are four, overlapping accessible design and construction standards that apply to multifamily housing in Massachusetts:

- 521 CMR – *The Rules and Regulations of the Massachusetts Architectural Access Board*
- *Uniform Federal Accessibility Standards (UFAS)*, as referenced by Section 504 of the Rehabilitation Act.
- 24 CFR 100.205 - Federal Fair Housing Act (FHA) *Requirements for Accessible Design and Construction*
- Appendix A to 26 CFR Part 36 - *ADA Standards for Accessible Design (ADAAG)*, as referenced in the *Americans with Disabilities Act*

Each of these four standards establishes *minimum* requirements for accessible and adaptable housing. 521 CMR is unique to Massachusetts, and is part of the *Massachusetts State Building Code*. The other three are federal requirements enforceable through federal civil rights legislation. In Massachusetts, a multi-family development may have to comply with 521 CMR as well as one or more of the federal accessible design standards, depending on how it is financed, the number of units, and whether it is new construction or rehabilitation.

Note that ADAAG has a more limited scope for housing developments than the other three laws. ADAAG applies only to facilities related to rental or sales offices and to retail shops which may be on the same site .

These standards are substantially similar, but not exactly the same. **Where conflicts occur, the standard requiring the greatest access is the prevailing requirement and must be followed.**

521 CMR's regulations generally require the most accessibility, **with a few important exceptions**. Some of these exceptions are listed in the box below.

521 CMR's regulations generally require the most accessibility, **with a few important exceptions**. These include (but are not limited to^[11]):

- Both 521 CMR and FHA exempt certain requirements in buildings undergoing renovation or reconstruction. FHA, however, does apply to the renovation or

reconstruction of existing facilities when only the façade is saved and the interior is rebuilt as multi-family housing with 4 or more units.

- FHA applies its usability requirements to townhouses in buildings with elevators. The story served by the elevator must:
 - Be the primary entry to the unit;
 - Meet all unit requirements, including those of a bathroom if one is provided on that level.
 - Meet limited requirements for a powder room if one is provided on that level.
- FHA requires detectable warnings at various locations.
- FHA requires at least 2 percent of parking serving covered dwelling units be accessible.
- FHA requires a min. 108" vertical clearance at accessible passenger loading zones.
- FHA and UFAS require 60" turning radius in common-use kitchens.
- FHA requires a min. 30" x 48" clear floor space for a front or parallel approach at appliances and other elements in common-use laundry rooms and trash facilities.
- FHA requires that doors be usable, and are installed so that there is sufficient maneuvering space and clear floor space at the time of first occupancy.
- FHA requires U-shaped kitchens to provide 60" min. turning radius or space for a T-turn.
- FHA requires that clear floor space be parallel to and centered on ranges, cooktops, sinks; and that it be centered (parallel or front) at the refrigerator.
- FHA and UFAS require that floor, cabinet, and wall surfaces be finished – even if covered by removable cabinets – at the time of first occupancy.
- UFAS requires that at least one usable shelf of all cabinets and storage shelves are mounted 48" or less above the floor.
- 521 CMR requires 30" counter space adjacent to a refrigerator if the refrigerator door does not open 180°. UFAS requires 15" min. of counter space adjacent to all refrigerators.
- FHA requires that outlets installed over counters be located at least 36" from an inside corner.
- FHA and 521 CMR have different requirements for the number of bathrooms and powder rooms that must be accessible. These need to be analyzed separately to ensure compliance with both standards.
- UFAS and 521 CMR have overlapping and conflicting requirements for bathtub and shower controls.
- UFAS requires that the existence of adaptable features is provided in each adaptable dwelling unit.

521 CMR is enforceable by local building officials through the permitting process. The Massachusetts Architectural Board can grant variances when an owner demonstrates

that full compliance is 'impracticable,'¹ although variances for new construction are very rare. The Board also acts on citizen complaints, and can order compliance and levy fines for ongoing failure to comply with its orders.

Following is a discussion of the general requirements of each of the four accessible design and construction standards which can apply to newly constructed as well as renovated multi-family housing.

1. **521 CMR – The Rules and Regulations of the Massachusetts Architectural Access Board.**² All multifamily housing with more than two (2) units must comply with 521 CMR, *The Rules and Regulations of the Massachusetts Architectural Access Board*. These regulations apply to new construction as well as alterations; and have three basic standards

Group 1 Units. Often labeled 'adaptable units,' Group 1 units have features that can be modified without *structural change* to meet the specific functional needs of an occupant with a disability. For example, the kitchen cabinets can be raised or lowered and the bathroom walls have reinforcement to allow later addition of grab bars. These units are substantially similar to the requirements of the *Federal Fair Housing Act* (see below).

All new construction of apartments and condominiums are required to provide "Group 1" units on the ground floors. In buildings with elevators, all units are required to meet Group 1 standards or be adaptable. Group 1 units are not required in alterations, reconstruction, or reuse.

Group 2 Units. Often labeled 'accessible' units, Group 2A units have features similar to Group 1, but have the additional feature of greater floor space to accommodate the needs of occupants who need such space due to their disability. These units are similar to – but not the same as – accessible units under UFAS.

New construction and alterations of projects with twenty (20) or more units are required to provide at least 5 percent "Group 2A" units in apartments.

Note: Condominium projects are excluded from the Group 2 (but not Group 1) requirement.

Public and Common Use Areas. In new construction and alterations of apartment and condominium projects with 12 or more units in a building, all common areas are required to be accessible. Public and common use spaces are those spaces

¹ Impracticability means: "(a) Compliance with 521 CMR would be technologically unfeasible; or (b) compliance with 521 CMR would result in excessive and unreasonable costs without any substantial benefit to persons with disabilities." (521 CMR 5.0)

² The Rules and Regulations of the Massachusetts Architectural Access Board
http://www.mass.gov/aab/aab_regs_word.htm

inside or outside a building that are used by residents and/or visitors. They include but are not limited to community facilities, meeting rooms, restaurants, recreation spaces, health facilities, pools, public toilet rooms, laundry areas, trash areas, storage areas, mailboxes, walks, sidewalks, parking lots and garages, entrances, elevators, lobbies and foyers, as well as corridors and stairways leading to dwelling units.

- 2. Federal Fair Housing Act Guidelines (FHA).**³ In 1988 Congress amended the Federal Fair Housing Act to extend civil rights protections to include people with disabilities. HUD developed regulations and guidelines that specify the minimum design and construction requirements for multifamily housing that can be used – or adapted – by many people with disabilities. HUD also developed the “*Fair Housing Act Design Manual*” to provide more specific guidance on how to comply with the FHA’s non-discrimination requirements in design of multifamily housing.

FHA applies to new construction of apartment and condominium complexes with four or more units in a building. In buildings with elevators, all units must be adaptable; the requirements are similar to - but not exactly the same as - 521 CMR’s requirements for Group 1 units. In buildings without an elevator, only the units on the ‘ground floor’ must meet FHA standards, i.e. be adaptable.

Renovations, reconstruction, and reuse are exempt except when only the façade remains and a new flooring and structural system are included in the construction.

Like 521 CMR the FHA requires public and common use areas to be accessible.

- 3. Uniform Federal Accessibility Standards (UFAS).**⁴ UFAS was developed to standardize the accessible design requirements referenced by federal agencies. It is the referenced standard for all facilities built by private and public developers that receive federal funding and must comply with Section 504 of the 1973 Rehabilitation Act. It applies to all apartments and condominiums with at least 15 units. It requires 5 percent accessible units similar to – but not exactly the same as - 521 CMR Group 2 units and accessible common areas. Its design standards are similar to – but not the same as – 521 CMR regulations for Group 2 units and accessible common and public use areas. UFAS also requires 2 percent of its units accessible to people who are deaf or hard of hearing.

³ 24 CFR Chapter 1: Final Fair Housing Act Accessibility Guidelines and the FHA Design Manual(produced by HUD to assist designers interpreting the FHA Accessibility Guidelines)

http://www.fairhousing.com/index.cfm?method=page.display&pagename=regs_accessib

http://www.fairhousing.com/index.cfm?method=page.display&pagename=regs_accessi0

⁴ 24 CFR 100.205: Uniform Federal Accessibility Standards, as referenced by Section 504 of the Rehabilitation Act.

<http://www.access-board.gov/ufas/ufas-html/ufas.htm>

For federally assisted housing, UFAS 4.1.4(11) limits its requirements for accessible units to “ 5 percent of the total, or at least one unit, whichever is greater, in projects of 15 or more dwelling units, or as determined by the appropriate federal agency following a local needs assessment conducted by local government bodies or states under applicable regulations.

4. Americans with Disabilities Act Standards for Accessible Design (ADAAG). ADAAG does not include requirements for accessible, multi-family housing such as apartments or condominiums, except in circumstances where it is part of a social service or health care program. Generally, *ADA Standards for Accessible Design* apply only to the leasing office facilities for apartments or the sales office for condominiums. This includes the parking for these limited facilities, walkways on the development's site leading to public sidewalks and transportation, sales or leasing office, and toilet rooms associated with the office. Where retail facilities are included within the development, these are also covered by the ADA. The residential units and common areas used exclusively by residents and their guests are not included in the ADA's jurisdiction.⁵

Usable^[13] or Adaptable Housing. 521 CMR and FHA both require many units in new construction of multi-family housing to be 'usable' or 'adaptable.' This means that:

- Common areas (parking, walkways, entrances, amenities) are fully accessible, and
- All ground floor units in buildings without elevators have specific features that make them usable by most people, and can easily be adapted for people with physical or sensory disabilities.
- All units in buildings with elevators have specific features that make them usable by most people with and without disabilities and adaptable without great difficulty for people who use wheelchairs or scooters.

521 CMR calls these units "Group 1" units. FHA calls these 'covered multi-family dwelling units.' Their design requirements are very similar; and their intent is to vastly increase the availability of rental and condominium housing that can be visited by and lived in by people with a wide range of disabilities.

Accessible Housing. 521 CMR has additional requirements for accessible housing, i.e. units for people who need additional floor space, grab bars, or sensory alerting systems with very little modification to a unit. These units have larger bathrooms and kitchens; blocking in bathrooms for grab bars; and knee space in kitchens. These are called "Group 2A" units. The FHA has no comparable requirement. UFAS, however, has similar requirements for accessible units, although it only requires 2 percent of units in a development to be accessible while 521 CMR requires 5 percent to be accessible.

⁵ Appendix A to 26 CFR Part 36: ADA Standards for Accessible Design
<http://www.access-board.gov/adaag/html/adaag.htm>.

DETERMINING WHICH ACCESS DESIGN STANDARDS APPLY

Determining which of these four standards applies to a particular housing project will depend primarily on:

1. The development's sources of funds;
2. Whether the development is new construction, alteration or reconstruction; and
3. The number of units in the proposed development.

Following are two charts which summarize which standards apply to which project based on these three key criteria. The first chart summarizes the accessible design standards that apply based on the sources of funding for a development. The second chart summarizes the accessible design standards that apply based on the development's number of units and whether it is new construction or rehabilitation.

Sources of Funding

To develop affordable housing in the current marketplace, developers generally secure multiple sources of funding, each of which may trigger a different accessible design requirement. For example, a development that combines private funds with federal HOME funds, state Affordable Housing Trust funds, and state CBH funds will have to comply with all of the aforementioned regulations.

FUNDING ^[14] SOURCES ⁶	521 CMR	UFAS	FHA
Community Based Housing Program	✓		✓
Low Income Housing Tax Credits; 4% and 9%	✓	✓	✓
Historic Tax Credit	✓	✓	✓
State Historic Tax Credit	✓		✓
State Housing Tax Credit	✓		✓
CDBG	✓	✓	✓
HOME	✓	✓	✓
Housing Stabilization Fund	✓		✓
Housing Innovation Fund	✓		✓

⁶ ADAAG is not included in this chart because it applies only to portions of the development open to the public. This may include facilities related to the leasing office, sales office, and retail on the site. It does not apply to areas used exclusively by residents and their guests. Where the housing is provided as part of a program – such as transitional housing or a health care program – ADAAG may apply to the entire facility.

FUNDING^[14] SOURCES⁶	521 CMR	UFAS	FHA
Facilities Consolidation Fund	✓		✓
Affordable Housing Trust Fund	✓		✓
CAT-NIP	✓		✓
Transit Oriented Node (TOD)	✓		✓
Leading the Way	✓		✓
Inclusionary Zoning Funds	✓		✓
Public Housing Funds-HOPE VI	✓	✓	✓
Privately Financed	✓		✓
Federal Loan Guarantees	✓		✓

[15]

New Construction and Rehabilitation

The chart on the following page summarizes the accessible design requirements based on the number of units and whether the development is new construction or alteration.⁷ *In reading the chart, note that the requirements in each box are “cumulative” (i.e., each box includes the requirements in that box and all of the requirements above it). For example, when developing a new project with 20+ units, the requirements in all of the boxes in the left-hand column will apply.*

⁷ This chart has been developed by Kathy Gips, Adaptive Environments Center; Joshua Barnett, NYC Housing Authority; and David Kessler, Kessler McGuinness & Associates, LLC.

# of Units in Building	NEW CONSTRUCTION*	ALTERATIONS*
1+ state & local gov't. housing only	Regulation: ADA Title II Scope: Covers all state and local government housing. Design Guidelines: UFAS or ADAAG.	Regulation: ADA Title II Scope: Covers all state and local government housing. Design Guidelines: UFAS or ADAAG.
3+	Regulation: MAAB Group 1 Scope: Covers public and common use areas, all units in buildings with elevators, and all ground floor units in buildings without elevators. Townhouses (multi-story units) exempt. Design Guidelines: MAAB	
4+	Regulation: Fair Housing Amendments Act Scope: Covers public and common use areas, all units in buildings with elevators, and all ground floor units in buildings without elevators. Townhouses (multi-story units) exempt. Design Guidelines: Fair Housing Accessibility Guidelines	
5 ^{[[6]]} + federally funded housing only	Regulation: Section 504 Scope: Covers public and common use areas. 5% of units required to be accessible or adaptable; additional 2% required to be audible/visual accessible. Home ownership units required to be adaptable. Design Guidelines: UFAS, except where ADAAG is stricter.	
12+		Regulation: MAAB Scope: Covers renovations of public and common use areas (not individual units). New construction standards triggered if renovation exceeds 30% of the building's value. Design Guidelines: MAAB
15+ federally funded housing only		Regulation: Section 504 Scope: Covers renovations to public and common use areas and units, except electrical, mechanical, and plumbing alterations. New construction standards triggered with substantial alterations (renovation costs exceed 75% of replacement value). Design Guidelines: UFAS, except where ADAAG is stricter.
20+	Regulation: MAAB Group 2 Scope: Covers public and common use areas and units. 5% of units to be fully adaptable (Group 2A) or fully accessible (Group 2B). Additional 2% of units to be audible accessible. Units for sale exempt from Group 2. Design Guidelines: MAAB	Regulation: MAAB Group 2 Scope: Covers renovations to public and common use areas and units. New construction standards apply to units when the 30% renovation cost trigger is reached. Units for sale are exempt from Group 2. Design Guidelines: MAAB

*Note: *The chart is cumulative as the number of units increases. For instance, new developments with 20 or more units covered under MAAB Group 2 are also covered by Fair Housing regulations for fewer units.*

For information about the specific requirements of each accessible design and construction standard, see the web-sites referenced above. *Part Two: An Architect's Tool* describes where the three federal standards exceed the requirements of 521 CMR and the additional enhancements that CBH prefers for increased visitability and universal design.

Beyond Access: Visitability and Universal Design

The access requirements described above have been critical forces in helping people with disabilities to move into the community. An accessible or adaptable apartment is key to ensuring that a person who uses a wheelchair can move into and live independently in the community.

As people with disabilities have been living in housing developed under these standards, issues have been identified. These include the ability of someone with a physical disability to visit the home of someone who does not have a disability as well as the breadth of different needs and preference among people with physical and other disabilities. For example, someone who is paraplegic and uses a large electric wheelchair has different design needs from someone who is paraplegic and uses a small manual wheelchair. A person with severe arthritis has different needs than a person using a mobility device.

Several design and access movements have developed to address these and other design concerns including the “Visitability,” and “Universal Design” movements.

Visitability

A visitable home is a home which has enough accessibility in its common areas and units to allow a person using a wheelchair or other mobility devices to^[17] visit. A development that is visitable better ensures that people with disabilities, including elders, can fully participate in their community. Many people with disabilities have to be the ‘host’ to socialize because their friends’ homes are not accessible. More visitable homes will begin to mitigate against this ‘perpetual host syndrome.’ People can visit or be visited; they can choose to be a host or a guest; then can, in short, live fully within their chosen community.

A visitable home has the following features:^{8[18]}

- One ZERO-STEP entrance
- All main floor interior doors—including bathrooms-- with 32 inches of clear passage space
- At least a half bath, preferably a full bath, on the main floor

In other words, [a person with a physical disability should be able to] *get in and out of the house and be able to use the bathroom*—the essentials for visiting, and for surviving in one’s home with a temporary or long-term disability.”

⁸ From www.concretechange.org.

These features will greatly enhance the development's usability and visitability by people with varying abilities. In addition, they are not expensive, and can typically be included with little or no additional expense. **Including these visitability features will enhance a developer's possibility of qualifying for Community Based Housing Program funding.**

Universal Design

Where visitability seeks to create broader access by requiring modifications in a few key areas, universal design seeks to create access by enhancing the environment overall. *"The intent of universal design is to simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost. Universal design benefits people of all ages and abilities."*⁹

The national Adaptive Environment Center¹⁰ provides the following principles of Universal Design:

1. **Equitable Use:** *The design does not disadvantage or stigmatize any group of users.*
2. **Flexibility in Use:** *The design accommodates a wide range of individual preferences and abilities.*
3. **Simple, Intuitive Use:** *Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.*
4. **Perceptible Information:** *The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.*
5. **Tolerance for Error:** *The design minimizes hazards and the adverse consequences of accidental or unintended actions.*
6. **Low Physical Effort:** *The design can be used efficiently and comfortably, and with a minimum of fatigue.*
7. **Size and Space for Approach & Use:** *Appropriate size and space is provided for approach, reach, manipulation, and use, regardless of the user's body size, posture, or mobility.*

More and more, universal design options are a common choice, driven largely by the demographics of an aging population and growing expectations among baby-boomers. Designers today *must* comply with accessible design standards, or they and their clients risk substantial legal and financial sanction. Fortunately, there are many resources – in products, best practice design examples, and books – that guide

⁹ www.design.ncsu.edu/cud/about_ud/about_ud.htm.

¹⁰ www.adaptiveenvironments.org.

designers and developers in making effective choices to enhance the usability of multi-family residential developments by people of all ages and abilities^[19].¹¹ The goals for developers are fast becoming the same as those for CBH – to make their residential developments attractive to and usable by people of all ages and abilities through design that promotes integration, control, and accessibility.

Universal design need not be expensive. Surveys have shown that accessible and universal design, when included in initial design, adds 0 percent - 1 percent to the cost of new construction. For the most part, it is the development and design team's commitment to universal design – not the cost of the resulting products or schemes – that makes multi-family residences more accessible.

For^[110] example, in new construction the following features may cost little-to-nothing extra and will enhance the visitability and usability of a residence:

- Minimal, beveled thresholds at exterior doors and no interior thresholds are appreciated by most people, as it eliminates a tripping hazard, and removes a discomfort or barrier for people using mobility devices.
- Lever hardware on all doors within a unit. Lever hardware may not be required on *all* doors within a unit, but are now readily available in attractive, residential choices. Most people prefer lever hardware for its general ease of use; and many people with arthritis or other disabilities find it usable when knob-hardware would not be.
- Shelf outside entrance for packages. A shelf or small bench located outside any locked door – common entrance or individual unit – is useful as it allows a person to put down packages while unlocking a door.
- Medicine chest, electrical outlet, and towel bar on the sidewall of the sink (v. the back wall) so it is reachable without moving from the sink.

There are some exceptions to this cost-neutral assertion:

- Renovation or reconstruction of existing facilities
- Addition of elevators where they might not have been required by accessible design standards
- Additional space for maneuverability in bathrooms and kitchens, although many standard layouts are usable by people with disabilities
- Blocking for grab bars
- Wiring and installation of visual notification systems
- Additional or larger closets and outlets

Although these might be standard features in moderate and luxury residences, they may not typically be included in affordable or mixed-income developments. **Funds from the Community Based Housing Program (CBH) can help to offset these costs while**

¹¹ Ibid.

enhancing opportunities for people with disabilities to live independently in their chosen communities.

Design Priorities for the Community Based Housing Program

Created by the Massachusetts Legislature through Chapter 290 of the Acts of 2004, the Community Based Housing Program (CBH) provides loans to nonprofit agencies for the development of housing for people with disabilities. The legislation established an initial \$25 million loan fund to provide deferred payment loans to non-profit developers for the development and redevelopment of integrated housing for people with disabilities who live currently live unnecessarily in institutions or nursing facilities or are at risk of institutionalization.¹²

The goals of the CBH program include:

- **Integration:** Housing for people with disabilities should be designed to integrate people with disabilities into the community as fully as possible. The emphasis is on the development of scattered site units within developments rather than clustered or segregated housing.
- **Maximum Control:** People with disabilities should have the maximum control possible in their housing choices and management. Having and meeting the obligations of a lease or a mortgage in their own name, with or without assistance, is the goal for most people with disabilities.
- **Accessibility:** The Commonwealth seeks to promote maximum visitability in all publicly funded housing. This will better ensure people with disabilities have access to integrated housing in all communities.

To truly offer integrated housing to people with disabilities, all housing would have to have the capacity to accommodate individual needs such as physical access for a person who uses a wheelchair, scooter or walker or design features such as non-LED appliances for someone who has visual disabilities. As described above, state and federal fair housing laws have moved in this direction, from requiring only wheelchair accessible units to requiring new construction to include units that can be adapted to varying needs. By providing incentives for developers to make developments more “universally designed”, the Community Based Housing Program seeks to make housing both more integrated and more usable to people with a broad range of abilities.

Projects funded with CBH funds will have to comply with all applicable access standards. In determining which projects will receive funds from the limited pool of CBH funds, the program will prioritize projects that also incorporate aspects of visitability and universal design. Although not required by any of the four accessible design standards, these universal design components make units more usable for the

¹² Regulations, Program Guidelines, FAQs and Pre-application forms area available at www.mass.gov/dhcd and www.cedac.org.

residents CBH funding supports. The Commonwealth seeks to promote maximum universal design and visitability to ensure that people of varying ages and abilities have access to integrated housing and that they will be able to age in place.

The following outlines some of the kinds of design features CBH seeks.

Design Priorities for the Community Based Housing Program

CBH is more likely to fund units and developments that help meet its program goals by including these and other universal design components. Note: At minimum, all CBH developments must comply with all applicable, relevant access standards.

Universal Design Features Preferred in Developments Funded by the CBH Program

- Visitability
- Universal design
- Units of all bedroom sizes for people who use wheelchairs. Depending on location, one-bedroom units that include wiring and amenities for people who are deaf or hard of hearing, or who are blind or have limited sight. Generally non-accessible units with more than one bedroom will not be funded because they are not marketable to CBH-eligible households.
- If townhouses are proposed:
CBH units must be flats, and
Townhouses must be visitable on the first floor.

Site

- All building entrances must be accessible^[112] in new construction and alterations.
A gently sloped walkway is preferred over ramps.
Good lighting for pedestrian walkways on the site.
- No lifts. Elevators in all buildings.
- Accessible parking spaces for each accessible (2A) unit.
- If covered parking or a garage is available:
Include accessible parking in the garage in new construction and alterations.
Provide direct, covered pedestrian access between the garage and the residential building(s).
Maintain 108" (min.) vertical height in garage between the van accessible parking spaces and the entrance to the residential building(s) with 2A units.

Provide at least 5'-0" 'access aisle' for side door loading and unloading.

- Automatic door openers at all building entrances.
- Well-lit entrances with the same level of lighting on the interior and exterior side of the entrance door.
- Intercom systems accessible to persons who have visual and/or hearing disabilities.
- Shelf outside the entrance for packages.
- Raised garden beds where resident gardening is an option.

Common Areas

- In developments and buildings of any size, common areas should be accessible to all; easy to get to and with features such as wheelchair accessible bathrooms and wide clearance doorways; any outdoor areas should also be accessible.
- Common laundry area should have accessible equipment including machines for persons with visual disabilities without LED controls.
- In developments and buildings of any size, mailboxes: ensure these are in an accessible location in the development and that the mailboxes are accessible themselves.
- Paddle or rocking light switches located between 15" – 48" AFF.
- Wainscoting or other non-institutional wall cover in corridors.

Wheelchair Accessible Units

ACCESSIBLE UNIT ENTRY:

- Automatic door openers for ease in opening door
- Shelving inside and outside unit entry door
- Entries straight on where possible, without barriers or sharp turns
- Audible and visual alerting for systems for doorbells or door knockers

ACCESSIBLE UNIT INTERIOR:

- Wiring for sight and sound accessibility in all wheelchair accessible units so flashers and other features can be added less expensively as a retrofit as needed.

- More space, i.e. more than the minimum required in 521 CMR and FHA, to accommodate individuals in larger wheelchairs:
 - Increased hallway widths
 - Generous turning radius for power chairs in all rooms, especially kitchens and bathrooms
 - More open space; fewer walls or corners
 - Enough space in bedrooms to allow a person using a wheelchair to approach both sides of the bed.
- Non-institutional wall protection at key heights (wheel spoke, motor), esp. at corners.
- Paddle or rocking light switches located between 15" – 48" AFF.
- Wood or vinyl floors instead of carpet.
- Closet layout should include shallow, wall length closets with lower shelves and bi-fold door.¹³
- Provide at least enough storage areas to accommodate additional storage requirements for equipment and durable medical goods. Storage is needed for:
 - Coats, etc. at the entrance
 - Closet with outlets for storing batteries, extra wheelchair, prosthetics, etc.
 - Linens in bathroom, storage
 - Bedroom storage for clothing, suitcases, etc.
 - Items that would normally be stored in a development's 'basement storage,' is more accessible if provided within the unit.
- Additional electrical outlets to accommodate medical equipment and assistive technology.
- Pocket doors or doors with off-set hinges where pocket doors are not practical.
- Sturdy handrails with extensions on both sides of all stairs.
- Front loading washer and dryer with dial (not LED) controls.
- Lever hardware in all doors and cabinets.

ACCESSIBLE KITCHEN:

¹³ While folding doors are considered high maintenance by many housing managers, doors that have tracks on top and bottom will be more successful. Closets should have lowered hangers or at least the ability to have two different height levels.

- 66" min. turning radius for power wheelchair and scooter.
- In new construction and alterations, adaptable levels for cabinets, food prep areas, sinks.
- Kitchen appliances should not be LED but should include sound- or touch-based on-off ignitions for burners and stove.
- Side-by-side refrigerator/freezer
- Counter space adjacent to refrigerator
- Sliding interior drawers and 'round-about' corner cabinets
- Shelf mounted below lowest overhead cabinets for easy access to frequently used items.

BATHS:

- Roll-in, rimless showers in one- and two-bedroom units. These should have a flush transition and protective, waterproof membranes under the door inside and outside the shower area.
- Combination roll-in showers and tubs in larger size units.
- Shelf within tubs and showers for storing bathing amenities (soap, shampoo, etc.).
- Where a tub is necessary, it should not be fiberglass and should be sturdy enough to support a lift.
- At all transfer showers provided, there should be adequate space for a wheelchair to extend beyond the shower wall during the transfer.
- Full, 48" parallel access to tubs (v. front, 30").
- Tub with wide edge or rim seat to facilitate transfer or assistance.
- Mount tub controls close to the open side of the end wall for easier access from within or out of the tub.
- Clear Hot/Cold markings - easy to see and understand.
- No vanities.
- Outlet and 'medicine cabinet' located adjacent to sink so it is reachable without moving or reaching across the sink.

Unit Exterior Spaces

- Shaded deck, patio, or garden space.

- Flush transition from interior to exterior areas.

Adaptable Units

- Blocking in place for grab bars in all units
- Wiring for sight and sound impaired features to be added as needed
- Wiring for door opener.
- Kitchen appliances should not be LED but should include sound- or touch-based on-off ignitions for burners and stove.
- In new construction and alterations, adaptable levels for cabinets, food prep areas, sinks.
- Hot/cold indicators in bath easy to see, use and understand.

Units for People with Visual Disabilities

- Kitchen appliances should not be LED but should include sound- or touch-based on-off ignitions for burners and stove.
- In new construction and alterations, blocking in place for grab bars in all units
- Wiring for door opener.
- Hot/cold indicators in bath easy to see, use and understand.

CONCLUSION

The Community Based Housing Program is an important new funding option intended to expand affordable, integrated housing for people with disabilities throughout Massachusetts. With careful attention to design requirements and enhancements preferred by CBH, this housing can serve a broad, unmet need for visitable and livable housing for people of many ages and abilities. CBH looks forward to funding developments that incorporate many of its preferred design elements.