Visitability Research & Reports

AARP Public Policy Institute

Center for Inclusive Design and Environmental Access

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VISITABILITY: TRENDS, APPROACHES, AND OUTCOMES

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Background

The rapid increase of "visitability" legislation in the United States over the past 14 years demonstrates a growing awareness of the need for housing with specific features that allow easy, safe, and convenient access by any individual with a mobility impairment. Access to visitable homes is limited to the main floor or habitable grade level of new single-family homes, duplexes or triplexes.

"Visitability" focuses on accommodations that a guest would utilize, such as the entrance to a home and a first-floor bathroom and hallways, rather than on features used by residents of the dwelling. Required features in visitability ordinances differ in many ways. However, the most common features designated in visitability ordinances include 1) at least one accessible route into a dwelling; 2) accessible entrance doors; 3) specifications for hallway widths throughout the main floor; and 4) electrical/environmental controls in accessible locations. Also common in visitability laws is the availability of waivers if compliance is not feasible due to topographical factors. Some of the more unusual specifications include a usable first-floor kitchen that is wheelchair-maneuverable; wall reinforcements in first-floor bathrooms provided for the possible installation of grab bars; a no-step entrance into the home; and electrical panels/breaker boxes in accessible locations, either on the first floor or adjacent to the accessible route. (See Appendices A-C.)

The first visitability legislation was passed in Florida and is known as 'The Florida Bathroom Law' (1989). This law only requires one feature. The habitable-grade level bathrooms of single-family dwellings, duplexes, triplexes, condominiums, and town homes must have a 29'' clear opening. Oversight is provided by local building departments, in connection with their other enforcement responsibilities.

Since the Florida law was enacted, legislation has been passed at both the state and local levels that encompasses a wider range of visitability features but most activity has occurred at the local level. (See Figure 1.) While many laws rely on mandates, incentive- and voluntary-based visitability programs have also begun to spread throughout the country. Today, there are more than 25 locations with visitability legislation establishing some kind of program.

These programs are difficult to track for several reasons. First, not all locations use the term "visitability" in their enactments. Second, no pattern of organizations accountable for oversight of visitability ordinances exists. Thirdly, ordinances and laws often do not specify the agency responsible for implementation. Finally, no widely used method is used for keeping track of how many visitable homes have been built. Thus, little is known about the outcomes of visitability programs.

Study

The purposes of this study were threefold:
1) to update existing information on visitability enactments;
2) to categorize ordinances and laws according to approaches (e.g. mandates,

incentives) used to bring about visitability; and
3) to examine the outcomes of the various laws and ordinances since their enactment.

These outcomes included the identification of what entity has responsibility for implementation and the actual numbers of homes built with visitability features.

Methods

Process/Procedure

Initially, this research was conducted to expand upon an earlier study, the results of which were presented at the Gerontological Society of America (Nishita et al., 2001). Investigation into visitability legislation was completed through a two-step process that lasted from July, 2002 to April, 2003. Identifying the correct person or group for appropriate information was accomplished through a "snowball" method of recommended contacts.

Step One involved summarizing what visitability legislation and programs currently exist. Four strategies were used to collect this information. First, existing studies were reviewed, including an AARP study investigating accessibility and visitability features (Kochera, March 2002) and our own earlier study conducted at the National Resource Center on Supportive Housing and Home Modifications (Nishita et al., 2001). Second, members of the visitability list serve that is sponsored by the University at Buffalo in New York (VISITABILITY-LIST@LISTSERVE. BUFFALO.EDU) were contacted for any recent information pertaining to visitability. Thirdly, an e-mail letter was sent to approximately 700 independent living centers, statewide independent living councils, and other related organizations. A comprehensive nationwide list of these entities was provided by the Independent Living Research Utilization Center (ILRU, 2002), a national center for research, training, and assistance for independent living. Finally, an Internet search was conducted using various search engines with the keyword, "visitability".

In Step Two, after initial knowledge about a visitability program was obtained, a targeted Internet search of city and state community and legislative websites was performed to find possible contacts. Once a potential interviewee was identified, an e-mail was sent or a telephone call was made to the specified individual, organization (e.g., Centers for Independent Living, Disabilities Commissions), or department in an attempt to answer several questions. The first query concerned who had oversight/enforcement over the ordinance or program. The second was whether the legislation was producing any results (i.e., if any new homes had been built and if so, how many). The third focused on the nature of the implementation process and effectiveness of the program. Often, more than one contact attempt was required, and follow-up questions were usually necessary in order to secure complete and comprehensible information regarding the current impact of the law or program.

Sample

A total of 113 persons/organizations was contacted. Of these, 77 provided either specific information or recommended another contact. The persons contacted included building officials, city council members, individuals from building and planning departments, and the departments of

community affairs, affordable housing, aging and disabilities. A total of 11 states and 24 cities was targeted in this search.

Results

We were successful in updating the existing information on visitability legislation and programs. The Nishita et al. (2001) presentation identified a total of six mandated visitability laws, and the Kochera (March 2002) study provided information about three further mandates. Our research was successful in locating a total of 16 cities and states with mandated visitability laws.

Building on Kochera's (March, 2002) study, we separated "visitability" legislation into five categories:

1) Builder Mandates Tied to Use of Public Funds;
2) Builder Mandates, Beyond Public Subsidies;
3) Builder Incentives;
4) Consumer Incentives; and
5) Consumer Awareness/Promotion.

Most mandated "visitability" laws only affect publicly-financed housing, while a few others are applicable to all private homes as well. Incentive-based programs are split, based on who is the target of the incentive, builders or consumers. The final category includes legislation that is designed to raise awareness about the benefits of visitable housing features in the community.

Builder Mandates Tied To Public Funds

The majority of visitability laws, at both the state and local level, pertain to housing that receives some kind of public financial assistance from the city, state, or federal government. The following summarizes these mandates and provides information regarding oversight/enforcement and implementation outcomes.

Local Government Ordinances

Several ordinances require visitability features in housing receiving local public funding. The first ordinance of this kind was passed in Atlanta, Georgia in 1992, requiring certain visitability criteria for new single-family dwellings, duplexes, and triplexes that receive *city assistance*. The City's Bureau of Buildings is the party responsible for enforcing the visitability requirements, and it monitors compliance through the building inspector's assessment prior to issuing building certification. As of 2002, over 600 homes had been built in Atlanta under this ordinance.

Visitability ordinances in Urbana, Illinois (2000) and Long Beach, California (2002) also specify visitability criteria for new single-family dwellings and duplexes receiving *city assistance*. In Urbana, city staff review blueprints before any building takes place. If any housing built with city financial assistance does not comply with the visitability ordinance, the Building Safety Manager will not issue a permit for construction. As of October 2002, 35 visitable homes had been built; another 15 were scheduled for completion by the end of the 2002 calendar year. In Long Beach, the Planning and Building Department is responsible for enforcement of the ordinance.
However, due to the recent enactment of this law, no projects have been built.

The Town of Southampton, New York (2002) has passed several resolutions that require certain "Adaptability" and "Visitability" features in single-family, multi-family, and senior housing funded with *town assistance*. The Planning Board and the Town Building Inspector enforce these resolutions. However, these laws exceed the requirements of the State Building Construction Code and have been submitted to the State Building Code Council for evaluation. As of April, 2003, no housing had been built due to the need for state-level review.

Other localities have broadened the concept of public funding. Onondaga County, New York (2002) has an ordinance that affects all new single-family dwellings and duplexes that receive *county assistance*. San Antonio, Texas (2002) enacted a city ordinance that affects new single-family homes, duplexes, or triplexes receiving *city, state, or federal financial assistance*. Iowa City, Iowa (2002) requires structures constructed with *state or federal assistance* to be in compliance, while the Austin, Texas (1998) ordinance applies to new single-family dwellings, duplexes, and triplexes constructed with any *public funds*, like San Antonio.

Compliance in Onondaga County is monitored by the Administrator of Community Development and in Iowa City by the Head of Housing and Inspection Services. As of March, 2003, no housing had been built in Onondaga County that would fall under the visitability requirements. Information was unavailable from San Antonio, and Iowa City is not tracking the number of building permits for homes built with accessibility features. In Austin, the ordinance states that the City Manager will monitor the administration of visitability ordinance. The Neighborhood Housing and Community Development Office provides technical assistance and on-site inspections, and also contributes to the monitoring of the ordinance. At the end of 2002, a total of 278 visitable homes had been built in Austin.

State Laws

Half of the statewide visitability ordinances concern housing built with *state or federal assistance*. These include Texas (1999), Georgia (2000), and Kansas (2002). The Texas and Georgia ordinances apply only to single-family affordable housing. Kansas includes not only single-family dwellings, but duplexes and triplexes as well. In Texas, the successful passage of Austin's ordinance led to the statewide enactment. The state's Department of Housing and Community Affairs monitors compliance; at the end of FY 2001, a total of 296 visitable single-family units had been constructed that were funded by the Housing Trust Fund. The Texas Bootstrap Loan Program provides up to $30,000 in mortgage loans to low-income families. These housing projects fall under the Texas visitability law. A total of 143 units in FY 2000-2001 were funded by this program, and 147 units were awarded funding for FY 2002-2003.

The Georgia and Kansas statutes do not clearly state who shall monitor compliance. In Kansas, the Department of Commerce and Housing staff reported that they are responsible for waiving any visitability requirements. Furthermore, while the ordinance does not specify enforcement, programs in the Housing Development Division that provide funding are responsible for monitoring and ensuring compliance. As of January 2003, Kansas had 12 single-family homes and 12 duplexes under construction that fall under the visitability requirements. Also, the State Housing Trust Fund had a single family home under construction that would fall under the ordinance. In Georgia, however, the number of homes built under its law is unknown.

The Minnesota (2001) state ordinance differs from the others because it specifies what type of housing is required to follow the visitability criteria. Housing that receives *any funding from the Minnesota Housing Finance Agency* (MHFA) falls under the provisions of the law. Other funding sources may be utilized as well; however, if any MHFA funds are used, compliance is mandatory. As of February, 2003, 17 single-family homes and 338 multi-family homes funded by MHFA had been built in compliance with the state's visitability criteria.

Builder Mandates, Beyond Public Subsidies

Few governments have passed visitability legislation pertaining directly to privately financed housing. This, in part, is due to protests from builders who do not want to be told how to construct private housing. This issue was a common occurrence when many of the ordinances were introduced. Ultimately most were written to apply only to publicly-financed housing.
Currently only two localities require visitability features in *all new single-family homes*: Naperville, Illinois (2002) and Pima County, Arizona (2002). In Naperville, the Transportation, Engineering, and Development Department has oversight; as of September, 2002, over 100 visitable homes were under construction.

It is unclear what entity oversees the Pima County legislation; however, the Planning Department was found to be somewhat involved in compliance issues. Records are not kept of submitted building plans, therefore the number of homes built can only be determined following the completion of construction. The total number of permits issued for single-family residences is tracked, however, and between the enactment date of October 8, 2002 and May 19, 2003, 1410 permits were issued, indicating that each of these homes is to be built under the new visitability criteria. The Southern Arizona Homebuilders Association (SABHA) has contested the passage of Pima County's visitability law twice in court. SABHA believes that the law infringes upon the Arizona constitution, although it has been defeated twice in court, once in federal court in October, 2002 and again in state court in April, 2003. In April, SABHA claimed that the law inhibited a person's constitutional right to privacy. However, the judge ruled that while privacy inside a home is clearly a constitutional right, privacy regarding construction is not. The outcome of these court cases indicates that visitability laws are reasonable and appropriate.

Vermont (2000) is the only state that applies a visitability ordinance to non-subsidized housing. Its law is unusual, requiring five specific visitable features in 'spec' homes, or those homes built by a developer prior to obtaining a purchaser. These features include: 1) one first-floor exterior door at least 36 inches wide; 2) 34-inch wide first-floor interior doors with thresholds that are ramped or beveled; 3) 36-inch wide level interior hallways; 4) environmental controls and outlets located in accessible locations; and 5) reinforced bathroom walls. The department responsible for enforcement, as well as how many 'spec' homes have been built, is unknown.

Vermont's law also includes a consumer education component. The Department of Aging and Disabilities Assistive Technology Division is in charge of educating home buyers about visitable homes in an effort to promote public awareness. The Vermont legislature gave the Department authority to build a demonstration house; however, no funds were appropriated for this project. Promotion of visitable housing has been stated as a goal of the 2002-2005 State Plan on Aging.

The City of Irvine, California provides another example of a unique method of promoting visitability features. In 1999, the Universal Design Program was implemented, requiring builders to provide a list of 33 optional accessibility features to consumers, all beyond the characteristic visitability requirements. Builders, however, are not required to incorporate these features into homes. Consumers ultimately decide whether or not they would like the features included in their new home. As of 2002, 14 builders were participating in this program. Recently, the City of Irvine was awarded the 2002 Accessible America Award from the National Organization on Disability. This award recognizes and praises the citywide focus on accessibility from housing, through transportation, to education and beyond.

Builder Incentives

While the goal for many advocates is to have visitability mandated, a handful of incentive-based programs have been successful in promoting the construction of visitable housing. The Accessible Housing Demonstration Grant Program in Illinois (1999) has led to the construction of 50 visitable homes, with 46 more under construction in January, 2003, and the participation of 21 developers. The program gives $5,000 to each builder who incorporates four specified features into each 'spec' home they build. The required four features are: 1) one no-step entrance into the home with a 36-inch wide entrance door; 2) 32-inch clearance at interior passage doors; 3) environmental controls in accessible locations; and 4) reinforced bathroom walls for the possible installation of grab bars. This program officially began in 2002, and it will continue either through 2004 or until the fund of $ 1 million is completely exhausted.

Southampton, New York offers reduced fees or building permit waivers for those who incorporate "Basic Access" features into the construction of one- and two-family detached housing. The Town outlines "Basic Access" features as 1) one step-less entrance into a dwelling; 2) 32-inch clearance on first-floor doors and hallways; and 3) a half-bath located on the first floor that is wheelchair maneuverable. A $300 credit is offered for building larger homes that have more expensive permit fees. In addition, should the builder or homeowner opt to include home modifications to aid persons with mobility impairment, the Town's Building Inspector will "fast track" the building permit application and fees that are related to enhancing access features. This incentive approach initially was advocated by the Town's Disability Advisory Committee and is conducted by the Building and Zoning Division. Freehold Borough, New Jersey implemented an incentive program in 1997 by waiving construction permit fees for the addition or construction of accessibility features in public and private dwellings. This program is overseen by the Freehold Borough Construction Code Enforcing Agency. The number of permits using this waiver since 1997 is, however, unknown.

Consumer Incentives

Virginia (1999) and Georgia (1999) have implemented tax credit incentive programs of up to $500 for consumers who add specific accessibility features to their homes. In Virginia, the law designates five different features homeowners can choose to promote accessibility. One or more of the following features must be included in order to receive the credit: 1) one no-step entrance; 2) 32-inch clear opening at interior passage doors; 3) reinforcement in bathroom walls and the installation of grab bars around the toilet, tub, and shower; 4) accessible light switches and outlets; and 5) universal design features or the accessibility or adaptability features outlined in the Virginia Uniform Statewide Building

Code (USBC). This program, which incorporates home adaptation and visitability features, is overseen by the Virginia Department of Taxation. For tax years 2000 and 2001, there were 47 claims filed to receive this credit.

In Georgia, the tax incentive program is available to disabled persons and their spouses for the purchase of a new single-family home with all four accessibility features or for the retrofitting of an existing home that includes one or more of those features. These comprise: 1) one no-step entrance into the home; 2) 32-inch wide interior passage doors; 3) reinforced bathroom walls; and 4) light switches and outlets placed in accessible locations. In Georgia, the Department of Revenue is responsible if an audit of this program is needed; however, it does not track how many persons have used this tax incentive.

A recent (June 2003) ordinance passed by Escanaba, Michigan, offers a $150 rebate to property owners who incorporate several features: an accessible entrance (no steps), 32" doors on the first floor, an accessible route and wall reinforcements in the first floor bathrooms. The City Manager is responsible for monitoring administration of this law.

Consumer Awareness

Several programs have relied on broader approaches to promote visitability. They include raising consumer awareness and increasing the marketability of a home to promote both the construction and purchase of homes with visitable features. Persuasion of builders by local officials has also been found to be a useful method.

Consumer Information

Two localities in California have instituted consumer awareness programs. Since 1998, San Mateo County has distributed two brochures, "Residential Visitability" and Universal Design Recommendations", to developers, builders, consumers, city officials, and the general public. The San Mateo Commission on Aging and Commission on Disabilities developed these informational pamphlets. A Joint Housing Taskforce was established to aid these Commissions in working closely with the County Board of Supervisors and the County Planning Commission to promote these ideas in housing plans. The recommendations set forth are applicable to new and multi-family housing. Thus far, the Commission on Disabilities has been successful in having its visitability and universal design recommendations incorporated into two affordable housing projects. Continuous efforts by the Commission have furthered the goal of raising awareness and increasing construction of visitable or universally designed housing in various parts of the county.

Sacramento, California recently found that a mandated visitability ordinance would be in conflict with the State Uniform Building Code, similar to the experience of Southampton, New York. Instead, the city approved the Universal Access Strategy plan in February, 2003. This plan calls for language to be included in single-family and citywide residential design standards encouraging universal design features. The ordinance provides for an annual evaluation to determine how many homes have been built with universal design features, as well as whether any modifications to the plan are needed. A plan to implement a program similar to that in Irvine, California is underway. The Universal Access Strategy

also calls for the adoption of AB 2787, a recent (2002) California law. Implementation of that statute will lead to model building codes for universally designed housing by 2005.
Syracuse, New York passed a resolution in 2003 which serves as a recommendation to builders to include visitable features in new one- and two-family houses. The Commissioner of Community Development was named to promote and encourage accessibility features in new home construction. Information regarding the addition of accessibility features in new homes is distributed to builders when they apply for a permit. It is unknown whether any accessible homes have been built.

Marketability

The 'Visit-Able Home Program' was established in Visalia, California (2001) to raise consumer awareness by designating homes with a 'Certified Visit-Able' logo. Builders who wish to have their homes certified must include three criteria in their building plans: 1) one zero-step entrance; 2) 32-inch clearance into bathrooms; and 3) wall reinforcement in bathrooms.
The 'Certified Visit-Able logo' is believed to be a good marketing strategy, and builders who receive certification are free to use this trademark to attract consumers to buy their homes. Dennis Lehman, Chief Building Official, who had his home built under the Visit-Able guidelines reported that the extra construction costs totaled $84. As of October, 2002, this certification program, overseen by the Chief Building Official and Development Services Manager, had led to the construction of 280 homes with the Visit-Able logo; however, the building division no longer keeps track of the number of homes built under this program.

A similar program, the 'Easy Living Home Project', was instituted in Georgia in 2002. This program resulted from a partnership between local long-term-care accessibility advocates, AARP, and the Home Builders Association of Georgia. It was designed to raise consumer and builder awareness, as well as to increase the numbers of accessible homes, without passing legislation. Homes are certified with an Easy Living Home seal following construction that incorporates three specified accessibility features: 1) a zero-step entrance onto the main floor; 2) trouble-free usage of one bedroom, kitchen, full bathroom, and living room area, each on the main floor of the home; and 3) 32-inch entrances throughout the entire main floor, including entries into bathrooms to allow for easy passage. The Project targets single-family homes, town homes, and attached homes of less than four units. Program officials believe these homes have high marketable value for all persons, not just those with mobility impairments. Their goal is to provide a model program to be presented, and implemented, nationwide by July, 2003. Fifteen homes have been certified; 136 homes were waiting for final inspection as of January, 2003.

In 1987, Livermore, California instituted a Housing Implementation Program (HIP) in order to manage the city's growth. Builders who participate in the HIP receive 'points' from the Planning Department, and then can advertise their housing projects as in compliance. In 2002, universal design aspects were included in the City of Livermore's HIP in a continuing effort to have housing projects built that are good for the town. Builders who wish to participate must submit their proposals and other required documents, which must be approved by the Design Review Committee, the Planning Commission, and the City Council. To date, no housing projects have been built that utilize the HIP universal design guidelines. However, a 30-unit affordable housing complex was built that incorporated visitability, although it was not required by the city.

Persuasion

Bolingbrook, Illinois attempted to pass a visitability ordinance in 1999; however, due to the large amount of voluntary compliance by builders, it is believed the ordinance is not needed. Persuading builders to construct visitable homes appears to be accomplished through a "jawboning" process involving the Mayor, the Village Attorney, and the Director of Community Development. When developers purchase land for a subdivision, they must meet with these three key players prior to their building plans being approved. During that meeting the developers are encouraged to incorporate visitability features into their properties. The Mayor plays a major role by showing that inclusion of these features is not only a good idea, but is fairly easy to do. When the builders agree, they meet with the building commissioner who explains how other builders in the area have incorporated visitability features into the construction of homes. The Bolingbrook Building Department then inspects the homes to be sure the features have been included, as per the developers' agreement. Approximately 460 visitable homes, with most or all of the suggested visitable features, had been built as of January, 2003.

Number of Visitable Homes Built

Between 1992 and 2003, there have been over 1573 visitable housing projects completed as a result of builder mandates tied to public funds. There are also 15 housing projects under construction that will fall under this category when completed. In addition, 1510 homes are either under construction or already have permits issued in the two areas where visitability legislation is applicable to all single-family homes. Ninety-seven homes also have been completed under incentive-based programs within this time span, and 336 are known to be under construction. Lastly, voluntary efforts have led to the building of 785 visitable housing projects, with 3 in the construction process. In sum, a total of 2455 visitable homes have been built.

Conclusions/Recommendations

Our research shows that the majority of visitable housing has been built under mandates tied to financial assistance from one or more levels of government. Housing built under these laws only affects a limited population; most new housing does not receive public subsidies. By contrast, Naperville, Illinois and Pima County, Arizona demonstrate that nearly the same number of visitable single-family homes can be built by requiring visitability to be incorporated into all new single-family homes. These two programs can set the standard for other areas that decide to require visitability in single-family housing built without any public funding.

While not as successful as mandates, voluntary efforts have produced effective results. Dissemination of information about visitability focusing on raising consumer awareness and the increased marketability of single-family homes have yielded a large number of visitable homes. Persuasion has also been an effective course of action. One advantage of voluntary programs is that they create less resistance in the community among builders and consumers. This encouragement of visitability may be slower paced than mandates, but also may provide a more positive way to advance the issue. On the other hand, builder- and consumer-based incentives have been less effective than the other methods, even though they have led to the construction of a number of visitable homes.

Lack of Uniform Approaches

One obstacle to visitability legislation is the absence of a uniform approach to promote the construction of visitable homes nationwide. Between mandated, incentive, and voluntary efforts, localities greatly differ in how they require or encourage visitability. Without a consistent approach to enacting and enforcing visitability legislation, it is difficult for other locations wishing to enact similar ordinances to know which mechanisms work best. In addition, the variability of required features creates a challenge for those states and localities that wish to join the visitability movement.

To overcome these disparities, *The Inclusive Home Design Act* was introduced in Congress in the fall of 2002, requiring single-family homes built with federal assistance to include three accessibility criteria. They included: 1) a zero-step or other accessible entrance; 2) 32-inch doorways on the first floor; and 3) an accessible bathroom. The bill was not passed; however, it will be proposed again in 2003.

In California, AB 2787 was passed in 2002 requiring the Department of Housing and Community Development to design a model ordinance for adoption by localities wishing to enact universal design features that include visitability elements. The development of voluntary model ordinances may promote visitability more rapidly by providing a template for local governments to follow.

The Value of Non-Mandated Approaches

Voluntary programs, such as those in Georgia and Visalia, California, have established a process that provides a replicable method for expanding the numbers of visitable homes. These programs have instituted a feasible process for builders and consumers, laying out straightforward terms for having homes certified as visitable. Each locality with a voluntary program demonstrates concerted advocacy of many organizations and public entrepreneurs, such as the Coalition of Citizens with Disabilities in Bolingbrook, IL; the Commission on Disabilities in San Mateo County, CA; and the Development Services Manager in Visalia, CA. These several advocates demonstrate "job-owning", a devotion to, and an effective way of making sure things happen. Voluntary efforts take more time, energy, and work on the part of dedicated individuals, to ensure that the anticipated outcome does in fact, occur. This "job-owning" process can establish a more effective method of promoting and tracking the construction of visitable homes than do mandates.

Incentive-based approaches have also established themselves as an important approach to increasing construction of visitable housing. Various techniques have been used, such as builder and consumer tax incentives and the waiving of building fees. In particular, the Accessible Housing Demonstration Grant Program in Illinois has been very successful in recruiting homebuilders to construct homes with visitability features. The Illinois Housing Development Authority has laid out an entire application and oversight process in order to remain actively involved with the builders and continue to promote construction. Other states might consider creating a similar demonstration program.

Virginia has also set an example by encouraging consumer participation via the tax laws. Other states might also consider using income tax incentives, paralleling incentives for other housing issues such as solar power.

Advocacy

Disability advocates have been very successful in getting legislation passed, especially in Naperville, Illinois and Pima County, Arizona, where both laws apply to all single-family homes. The Commission on Persons with Disabilities in Naperville, and the Tucson Commission on Disability Issues in Pima County played crucial advocacy roles. Disability groups have also played a large role in the promotion and monitoring of visitable housing legislation in many other areas, including the states of Vermont, Georgia and Kansas, and Bolingbrook, Illinois and San Mateo County, California. They often were our best sources of information on the statutes and outcomes of legislation. In addition, they "carry" the issue of visitable housing, rather than other players such as government officials. Advocates for the elderly would be well advised to join with the disability groups to help increase the spread of visitability legislation nationwide.

Overcoming Builder Resistance

Overall awareness of visitability is rising, and advocates and opponents have begun speaking out. Generally, builders make up a large majority of the opponents. The National Association of Home Builders has taken the stance that visitability should be encouraged and monitored under voluntary programs, rather than through mandates. Members of the organization do not want to be told how to build dwellings, or experience decreased marketability of their homes, due to increased costs. Again, voluntary and incentive programs can play a key role by successfully managing and promoting participation among builders, as demonstrated in Illinois and Georgia, as well as Visalia, Livermore, and San Mateo County in California and Bolingbrook, Illinois. The technical assistance provided to builders in Bolingbrook provides an excellent example of how city officials can work with and convince builders to produce a significant number of visitable homes.

The Future of Visitability

While the debate over how to best promote visitability continues, a question arises whether visitability, as a policy issue, is likely to command center stage in the future. Universal design and home modifications are two alternate methods of creating accessible housing that have gained in popularity. Many of the voluntary programs discussed earlier have universal design components, for example the cities of Visalia, Livermore, and Irvine in California. Furthermore, California's AB 2787 also emphasizes universal design principles which go far beyond visitability. Indeed, many advocates believe that settling for visitability is not an option. Rather, universal design is seen as the ultimate solution to ensuring safe, easy access into all housing for all persons, regardless of age or levels of impairment. It may well be that the "half a loaf" approach of visitability for new homes will be eclipsed by the principles of universal design in the coming decades. Similarly, modifications to existing homes that make it safer and easier to carry out activities by both residents and visitors may prove beneficial for greater numbers of Americans for all ages, now and in the future.

References

Kochera, A. (2002). Accessibility and Visitability Features in Single Family Homes: A Review of State and Local Regulations. Washington, D.C.:AARP Public Policy Institute. #2002-03.

Lehman, D. (2003) Chief Building Official, Visalia CA. Private Communication.

Nishita, C., Perelman, E., Liebig, P.S., and Pynoos, J. (2001). "The Rise of Visitability Legislation Among Cities and States: A Diffusion of Innovation" Presentation to the Gerontological Society of America. Chicago, IL.

CANADIAN CENTRE ON DISABILITY STUDIES

VISITABLE HOUSING

Knowledge, Practices, and Policies:

Literature Review

Environmental Scan

Policy Review

November 2013

VISITABLE HOUSING: Knowledge, Practices, and Policies

This report is based on research conducted by the Canadian Centre on Disability Studies (CCDS) as a part of the national project Collaborative Knowledge Building and Action for Visitable Housing in Canadian Cities ('Visitability Project').

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This report and other relevant information and resources are also available at CCDS' website: http://www.disabilitystudies.ca or CCDS' Visitability website: http://visitablehousingcanada.com.

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Visitability Advisory Committee

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Table of Contents

LITERATURE REVIEW

The Canadian Centre on Disability Studies has conducted a literature review on Visitable housing. This literature review is a part of the national initiative, *Collaborative Knowledge Building and Action for Visitable Housing in Canadian Cities Project*. This project is funded by the Government of Canada's Social Development Partnerships Program — Disability Component.

This literature review was intended to examine information, experiences, lessons, and issues related to Visitable housing. The review focused on the literature published in Canada and the United States over the last 15 years. Relevant literature was identified and gathered using the EBSCOhost database and the Google search engine. The references used in this report includes both formal and information literature, including academic research articles, project reports, government documents, and websites. However, we found very little scholarly research focused primarily on Visitable housing.

Introduction to Visitability

Houses are often built without any consideration of end users with mobility issues such as those with a disability or the aging (Bakker, 1999; Hall, 1999). People have differing needs and requirements with regards to housing. The needs of people change throughout their time living in a house. Some of these changes may be associated with pregnancy, small children, illness, aging or disability. Also, a house usually serves many occupants throughout its lifetime. Poor housing design affects not only the first people who live in the house, but all people who dwell in the house throughout the life of the building (Ward, 2005). User-friendly housing needs to accommodate the differing needs and requirements of all residents. Although Visitable housing was first introduced in consideration of people with physical disabilities, the concept is now widely accepted as a desirable home design for a wide range of residents (American Association of Retired Persons, 2000; Canadian Centre on Disability Studies, 2009; Canadian Mortgage and Housing Corporation, 1999; Nair, 2005; Pynoos, Caraviello, & Cicero, 2009; Wagnild, 2001; Ward, 2005).

Definition of Visitability

Visitability is “an affordable, sustainable and inclusive design approach for integrating basic accessibility features into all newly built homes and housing (Truesdale & Steinfeld, n.d.). Although different people describe ‘Visitable’ houses in slightly different terms, the following three features are essential to define ‘Visitability’ (Manitoba Housing and Renewal Corporation, n.d.):

1) One level, no-step entrance (minimum 36”)
2) Wider doorways and clear passage throughout (minimum 32”)
3) A wheelchair accessible bathroom on the main floor

Three Visitability Features:

1) **One level, no-step entrance (minimum 36”)**
2) **Wider doorways and clear passage throughout (minimum 32”)**
3) **A wheelchair accessible bathroom on the main floor**

These basic accessibility features allow visitors easy access at least to the main floor of the house. It is important to distinguish Visitability from Universal Design in that:

- Visitable homes are not fully accessible dwellings or universally designed units, and
- Visitability features do not apply to the upper floors or the basement (Progressive Accessibility Re-form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram, 2006).

Visitability History

In North America, Eleanor Smith and a group of advocates for people with disabilities introduced the concept of Visitability (Truesdale & Steinfeld, n.d.). In 1986, Eleanor Smith and her colleagues launched an initiative called “Concrete Change”. The initiative was intended to make a new community in Atlanta, which was to be developed by ‘Habitat for Humanity’, inclusive for people with physical disabilities. They realized that although some of the houses in the community were planned to be accessible for residents with physical disabilities, these people would not be able to visit their neighbours in the community due to stairs at the entrance and inaccessibility of bathrooms. Concrete Change suggested that Habitat for Humanity apply a set of basic accessibility features in every home in the housing project. Through the group's persistence and the Habitat board's endorsement, the first seven Visitable Habitat homes in the

Atlanta area were built in 1990. Eleanor Smith and her colleagues learned that the term 'Visit-ability' was used in England for a similar concept and later adopted the term for those basic accessibility features that they promoted (Truesdale & Steinfeld).

In the recent decades, the USA, Australia, the UK and other European countries have made much progress in advancing Visitable housing in practice. Canada, however, is lagging behind those countries in terms of legislation, public education, and incentives to promote Visitable housing (CCDS, 2007).

Reasons for Visitable Housing

People with Mobility Difficulties and Aging Population

Research shows that a great number of Canadians are subjected to inaccessibility of conventional housing designs. According to the Participation and Activity Limitation Survey (PALS, 2006), for example, one in six Canadians (14.3%) have a disability, which affect their daily activities. In addition, 43.4% of adults aged 65 and over have an activity limitation, which includes various conditions, such as agility, pain, and loss of sight. In particular, one third of all Canadians aged 65 or over reported difficulty in daily activities due to mobility problems.

Older adults are another group that tends to be vulnerable to architectural barriers. As of 2010, older adults aged 65 years and over accounted for 14.1% of the Canadian population, up from 13.9% one year earlier (Statistics Canada, 2006). Population aging in Canada is expected to accelerate in the next several decades. Statistics Canada also projects that older adults could account for more than one-fifth of the population as soon as 2026 and could exceed one-quarter of the population by 2056. The most common types of disabilities among seniors living in the community involve mobility and agility limitations (Employment and Social Development Canada, 2013).

In Canada, older adults aged 65 or older could account for more than one-fifth of the population as soon as 2026 and could exceed one-quarter of the population by 2056.

Aging in Place

'Aging in place' is defined as “creating a situation whereby older people can remain in their own familiar surroundings for longer, so delaying or possibly obviating the need to move to specific institutional residential care facilities” (Houben, 2001, p. 651). Numerous studies show that the majority of older people who live at home wish to age in place (American Association of Retired Persons, 2000; Canadian Mortgage and Housing Corporation, 1999; Nair, 2005; Wagnild, 2001). According to the American Association of Retired Persons (2000), for example, 89% of respondents aged 55 or older noted that they would like to remain in their current residences for as long as possible. Wagnil who studied residential preferences of 776 adults aged 55 years old or older also reported similar results. The older adults in Wagnil’s study identified the most important reasons that they like to age in place are a sense of independence and control, proximity to family, familiarity, safety and security, and being near friends.

90% of respondents aged 55 or older want to live in their current home as long as possible as they age.

Builders do not take into account age-related conditions such as reduced mobility when building a home (Bakker, 1999). Houses are typically designed for younger people and as people get older their own homes become less and less user-friendly (Nair, 2005). Consequently, most homes are hostile to the physical and sensory changes that older adults encounter as they age. As people age, climbing stairs becomes increasingly taxing or, in some cases, even dangerous. Bakker (1997) notes that seemingly insignificant home features can have powerful disabling effects. For example, for a person who is recovering from surgery, carrying a walker over the doorsill can be an overwhelming challenge (Bakker, 1997).

Croucher, Hicks and Jackson (2006) also report that a common reason that seniors move their home is their mobility problems. In a longitudinal study, June (2006) surveyed 6,225 older adults aged 70 and older. The findings indicated that disability in basic activities of daily living or in lower body activities among older persons increased the likelihood of their entrance into an institutional setting. However, they were less likely to move to an institution or care home when their homes were equipped with some built environment features, such as ramps, railings, or

grab-bars. Minor accessibility features can make a considerable difference in individuals' ability to live independently in their home (Adams, 2001).

A common reason that seniors move their home is their mobility problems.

Falls and Injuries

The no-step entrance feature of Visitable housing may have some safety implications. The physical environment does indeed directly affect the likelihood of falls and injuries, especially among the very old and frail at a high cost to society (Wister, 2005). The National Health Interview Survey (NHIS) in 1997 and 1998 reported that 14 percent of the falls leading to injury took place on stairs or steps (Chen, Warner, Fingerhut, Makuc, 2009).

Incidence of stair-related injuries is likely to increase with age (Startzell, Owens, Mulfinger, & Cavanagh, 2000). Among 34.7 million persons aged 65 and older, the estimated 1.8 million falls leading to an emergency room visit in 2000, and falls are the leading cause of death from injuries among older persons (Kochera, 2002). Seniors accounted for more than half of people who were seriously injured by falls on stairs or steps and were hospitalized between April 1, 2001 and March 31, 2002 (Canada Mortgage and Housing Corporation, n.d.).

Seniors account for more than half of people who were seriously injured by falls on stairs or steps and were hospitalized.

Over 50% of falls that older adults suffer occur in their own home. A large portion of Canadians who visit hospitals after a fall on stairs or steps in their homes are older adults aged 65 years or older (Canada Mortgage and Housing Corporation, 2010). Staircases are one of the common areas within the home where falls occur (Rogers, Rogers, Takeshima, & Islam, 2004). Stairs are the leading cause of serious falls among community-living elderly, accounting for about one-third of all fatal falls.

Over 50% of falls that older adults suffer occur in their own home. Staircases are one of the common areas within the home where falls occur.

Issues and Gaps

In 2007, CCDS carried out the on-line survey on Visitable housing in Canada. The study identified existing issues and gaps that have some implications on Visitable housing (Canadian Centre on Disability Studies, 2007). They are as follows:

- There is a lack of housing stock that even has basic access in Canada.
- In most cases people are forced to carry friends and relatives who use a wheelchair up stairs into their homes or have them not visit.
- There are very few Visitability regulations in Canada. Those that exist are voluntary and for publicly funded housing. No private housing ordinances were identified.
- The aging population is growing and Canada needs to move forward to meet its housing needs of the future
- The housing industry/planners/designers are not educated on Visitable housing

There is a lack of housing stock that even has basic access in Canada.

In most cases people are forced to carry friends and relatives who use a wheelchair up stairs into their homes or have them not visit.

Myths about Visitability

Concrete Change, the US initiative on Visitability, has identified several myths about Visitable homes (Truesdale & Steinfeld, n.d.):

1) Aesthetic Concerns

   Myth: Visitability features are unattractive.

   Truth: To the contrary. In fact, many home buyers view Visitability features as attractive.

2) Expense

   Myth: The expense of including Visitability features is high.

Truth: Not true. If Visitability is incorporated into the housing design at the planning stage, the additional expense is negligible. In addition, the extra space necessary to include such features is insignificant. And once a home is Visit-able, making it fully accessible in the future would cost far less.

3) Siting Constraints

   Myth: A zero-step entrance is feasible only on a flat lot.

   Truth: Not true. When using the lay of the land to advantage, a sloping lot is often even easier to work with than a flat lot.

4) Design Constraints

   Myth: A zero-step entrance is only feasible when building on a concrete slab.

   Truth: Building a basement or crawl space does not make a zero-step entrance infeasible. The grade of the surrounding land can be adjusted to eliminate steps without requiring a ramp. Depending on the site conditions, this may require a deeper basement to bring the first floor level closer to grade.

As to the expense associated with the Visitability features, however, other studies report conflicting information. The cost aspect of the Visitability features are examined in the next section ‘Costs and Marketability’.

Costs and Marketability

Costs

Cost is a factor in lack of interest in accessible design in architectural practices (Imric, 1999). Imric found that home builders make decisions on economic grounds when building houses. Some studies examined costs associated with building Visitable homes. The additional costs related to Visitable homes vary study by study and case by case.

Many cases suggest that when Visitability features are planned for at the outset, additional costs are minimal (Truesdale, S. & Steinfeld, n.d.; Spegal & Liebeg, n.d.). For example, the East Lake Commons project in Atlanta, which built 67 Visitable homes, reported that the additional cost associated with Visitability was roughly $25 per house (Visitability Issues, 2003). Concrete Change, a national education and advocacy organization, also found that as little as $200 is needed to provide basic access. Concrete Change estimates, however, that retrofitting costs an average of $1700 ($1000 to add a zero-step entrance and $700 to widen an existing doorway).

Truesdale and Steinfeld compared the costs of two Visitable homes built in Buffalo, NY and Rochester, NY against the cost of non-Visitable homes. They estimated the additional costs for Visitability features were less than $1,000.

The city council of Naperville, Illinois, passed an ordinance that requires all new private homes to be constructed with three Visitability features. The builders who built Visitable homes in the city reported that the cost of these features ranged between $500 and $5,000 (Kaminski, Mazumdar, DiMento, & Geis, 2006).

In Winnipeg, Manitoba, a team of building and development professionals conducted a case study on costs of building three Visitable homes (Progressive Accessibility Re-form Associates, Lanny L.M. Silver Architect, & Hilderman Thomas Frank Cram, 2007). The costs associated with the three Visitability features were tallied in total between $8,000 and $12,000. The range of cost for each feature are as follows:

- An accessible path of travel. ($ 620.00 - $950 and up)
- A no step entry. ($50.00 to $700.00)
- Circulation within a dwelling. ($300 to $500)
- Washroom on the main entry and living level. ($7500 to $10,000)

Additional costs associated with building Visitable homes vary from $25 to $10,000.

There are likely several different factors that create this discrepancy in the perception of costs related to Visitability. Steven Winter Associates (1993) investigated costs of accessible housing. According to the study, the topography of the site and design of the buildings created real differences in cost impact. Also, the study reported that where units were designed to a low standard (very small spaces), the cost impact of accessibility was higher. In addition, some studies suggested that most of the additional costs in building Visitable homes is related to creating the accessible route to the door and the no step entry, rather than interior design (Progressive Accessibility Re-form Associates et al., 2007)

Marketability

Many proponents argue that the cost of Visitability is negligible or at least affordable (Rehabilitation Engineering Research Center on Universal Design at Buffalo, n.d.). In addition,

some argue that the advantages of the Visitability features balance out the costs (Rehabilitation Engineering Research Center on Universal Design at Buffalo). For example, the builders who built a number of Visitable homes in Naperville suggested that larger hallways and level entryways with bigger doors have greater aesthetic appeal than the conventional home design (Kaminski et al., 2006). Large bathrooms, with wheelchair turnaround space, also get high ratings from buyers, as do sizable kitchen islands.

Many people agree that Visitability features have aesthetic appeal.

The aging population may have marketing implications for Visitable homes. In Canada, roughly three quarters (71.2%) of senior-led households own their home (Canada Mortgage and Housing Corporation, 1999). The Canada Mortgage and Housing Corporation also reported that over 80 per cent of seniors who moved chose a dwelling with one floor. Even among those who moved to single-attached houses, there was evidence of a preference for homes with fewer stairs.

Over 80% of older adult prefer homes with fewer stairs.

Visitable housing can also be attractive to those who may require home modifications for accessibility. According to 1995 American Housing Survey, the most common modifications made in households with seniors were: extra handrails or grab bars (29 per cent), wide doors/hallways (10), accessibility features in the bathroom (10), and ramps (9) (Kochera, 2002). Furthermore, the Visitability features may minimize the need for more costly personal care services, reduce accidents, and delay institutionalization (Pynoos & Nishita, 2003).

Advantages and Obstacles

Advantages of Visitable Housing

Literature highlights a number of advantages of Visitable housing. Identified benefits for individuals are as follows:

a. Visitability features provide better access to the house for people with mobility difficulties. Houses are built to last for many decades. It is most likely that a house will have

residents who have mobility difficulties or its residents have a family member or friend who would like to visit, but has mobility difficulties over the course of its life time (Canadian Centre on Disability Studies, 2009; Pynoos, Caraviello, & Cicero, 2009; Ward, 2005).

b. The no step-entrance of Visitable housing reduces the risks of fall or injuries of the residents. Also, family members, friends and paid community care workers benefit from safe working environments when assisting people with mobility difficulties (Canadian Centre on Disability Studies; Pynoos et al.; Ward).
c. The no step-entrance provides easy access to the house for those young children in prams and strollers or who are carrying large amounts of washing, shopping or heavy equipment (Canadian Centre on Disability Studies; Ward).
d. Visitability can help prevent premature institutionalization of older adults, by removing physical barriers in housing (Pynoos et al.).
e. Visitable housing helps people with mobility difficulties age in place.
f. Visitable housing enables people with mobility difficulties to live in the community and better integrate them into the social fabric of their neighbourhoods (Canadian Centre on Disability Studies, 2009; Progressive Accessibility Re-form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram, 2006). Ipsos MORI (2000) investigated older people's experience of social isolation. According to the study, nearly one million older people aged 65 and over (10 per cent) in Britain feel acutely isolated and over one million older people (12 per cent) feel trapped in their own home.
g. With the Visitability features installed, the home owners will have reduced costs for home renovations at a time of mobility changes (Canadian Centre on Disability Studies).

Visitable housing promotes safety, social inclusion, community life, and convenience for those who have mobility difficulties.

In addition, Visitable housing has positive impacts on the society as a whole. The benefits of Visitable housing to the community are (Ward, 2005):

- Fewer injuries to older people and young children;
- More appropriate and efficient use of acute care hospitals and rehabilitation facilities, because more people with mobility difficulties can stay at home;

- Safer work environments for both paid and unpaid care-givers;
- Less demand for home modifications, assistive equipment and paid assistance for daily living tasks for people with mobility difficulties; and
- Less demand on institutional care arrangements for older people and people with a disability, because they can stay in their own home longer. Costs for care were generally lower for community clients than for facility clients regardless of whether only the costs to government were taken into account or both formal and informal costs were taken into account (Chappell et al., 2002).

Concerns and Challenges Related to Visitable Housing

Researchers and professionals have identified some concerns pertaining to Visitable housing. Those concerns may be real or perceptional. The concerns identified are as follows:

- Affordability and costs associated with building Visitable homes (Canadian Centre on Disability Studies, 2007; Imric, 1999; Progressive Accessibility Re-form Associates et al., 2006),
- Loss of living space (e.g., kitchen, living room, bedroom) due to enlarged bathroom and hallway (Imric),
- Site or construction issues (Canadian Centre on Disability Studies; Progressive Accessibility Re-form Associates et al.), and
- Negative aesthetic quality of Visitability features homes (Canadian Centre on Disability Studies; Progressive Accessibility Re-form Associates et al.).

Concerns related to Visitable Housing:
Costs, Loss of Living Space, and Site/Construction Issues

As examined in the section ‘Costs and Marketability’, estimated costs associated with Visitable housing vary. Therefore, the extent that costs of Visitable housing affect marketing is inconclusive. In addition, the aesthetic aspect of Visitable housing is a matter of personal preference. In fact, many building professionals view the Visitability features as aesthetically attractive (Kaminski et al., 2006).

Literature also suggests some challenges to promoting Visitable housing. The barriers identified are:

- Lack of innovation within the building industry in relation to design, production techniques and marketing of accessible homes (Barlow, 1999; Burns, 2004; Progressive Accessibility Re-form Associates et al., 2006)
- lack of professional knowledge regarding design of accessible designs (Imric, 1999)
- Attitudinal barriers by industry and professionals (Canadian Centre on Disability Studies, 2007)
- Lack of support from the government (Canadian Centre on Disability Studies)
- Lack of consumer awareness (Canadian Centre on Disability Studies)

Obstacles and Solutions

Progressive Accessibility Re-form Associates et al. are a group of professionals in the building and development industry in Manitoba, Canada. In the report of their study on Visitable homes they presented some solutions to obstacles related to Visitable housing (Progressive Accessibility Re-form Associates et al., 2006, pp. 17-20). Their suggested solutions are summarized below.

a. ***Additional Costs Related to Visitability Features***

   Solution: Replace cost anxiety with facts by tracking additional costs in publicly funded visitable units, and providing this information to private sector builders. For affordable housing, visitability regulations must be accompanied by subsidies to cover any additional costs.

b. ***Consumer Interest and Demand***

   Solutions: Launch a multi-media public awareness campaign with user-friendly promotional materials to disseminate information about Visitability and its benefits.

c. ***Mandatory vs. Voluntary Visitable Housing***

   Many jurisdictions in the United States have experienced opposition and even court challenges against mandating Visitable housing (Maisel, 2005). Some view Visitability as restrictive and not reflective of the realities of the housing market.

   Solutions: Use the market rather than regulation to drive change in privately-funded housing. Target consumers with a promotional campaign. Consumers will become aware of the benefits of Visitable housing, demand will increase, and builders/developers will meet the demand.

d. ***Adopting Innovation***

   Incorporating Visitable features means changing the way houses are designed, approved, constructed and marketed. Builders may have neither the interest nor the resources to adopt the concept of Visitability in their practice.

   Solutions: Keep the requirements for Visitability simple and easy to understand. Provide various incentives to builders. Publicity may be as desirable an incentive as financial assistance, as it can help differentiate one builder from another in this competitive market. Sponsor demonstration projects will show how the requirements for Visitability are modest and almost invisible.

e. Housing Design and Construction for No Step Entry

Several trends in housing design and construction make a well integrated, accessible route to an entrance difficult to achieve. These include the desire for large basement windows, and the trend toward long homes on shallow lots with the drainage directed either to the front or back (not split). There may be some regulations that impede the provision of a no step entry. Split drainage may be discouraged in some cases due to concerns about blockage in rear yard drainage courses.

Solutions: Encourage lot grading plans with split drainage to reduce the grade differential between site and finished floor. Basements should have at least one quadrant without windows to allow earthwork against the building in support of an accessible walkway and entry area. Lot size and shape and house siting on the lot should support an accessible walkway to an entrance, and developer's engineering consultants should have a provisional accessible route in mind when laying out the lots and designing the lot grades.

f. Ramp Aesthetics

Visitable homes with ramps are visually distinct from conventional homes. There is concern that homes with obvious accessibility features become targets for crime.

Solution: Ramps should not be the default solution for an accessible route to the entrance. Sloping walkways are the preferred option, providing a more attractive and useful means of access. A sloping walkway requires foresight in the design of the home and the lot grading. For renovations, ramps should be an integral part of outdoor living spaces rather than bisecting them, so that the houses do not appear as specifically designed for people with physical disabilities or older adults.

g. Ambiguity and Confusion over Visitability Requirements

Visitability is very specific with the three distinct features. Adding features may erode the essential simplicity of the concept, and this begins to blur the lines between Visitable homes and adaptable homes. Adding additional accessibility features to the Visitability requirements creates confusion. As the purpose and the requirements become less clear, the marketability is diminished, affecting support at the political and consumer ends of the spectrum.

Solutions: Keep it simple. Focus on basic Visitability features.

Recommendations to Promote Visitable Housing

Progressive Accessibility Re-form Associates et al. (2006) make recommendations for the government and those interested in promoting Visitable housing.

Recommendations for Policy Development

- Incorporate Visitability features in publicly funded housing projects
- Incorporate Visitability features in some units of private housing projects on publicly-owned lands
- Incorporate Visitability features upon renovation or upgrading of public housing
- Provide incentives to assist in the development of Visitable housing
- Provide assistance for non-profit and cooperative private businesses that upgrade or adapt housing units to be Visitable
- Develop a new renovation program for private, non-profit or co-op housing providers to assist in the cost of building Visitable homes
- Provide subsidies for affordable housing to incorporate Visitability features

Recommendations for Promotional Initiatives

- Market Visitability
- Launch an awareness campaign to educate stakeholders about the benefits of Visitability (e.g. seminars, website, pamphlets, design contest, show homes)
- Foster partnerships among stakeholders to promote Visitability
- Promote the incorporation of Visitability features in the National Building Code and provincial building codes
- Study the feasibility of developing and maintaining a housing registry and/or labelling program to identify Visitable homes
- Develop a renovation action plan for public housing units for Visitability
- Encourage educational institutions for professionals in the building and development industry to include the concept of Visitable housing in their curriculum
- Encourage mortgage and insurance providers to offer discounts to those who build, purchase, or renovate visitable/adaptable homes

Conclusion

Visitable homes require basic accessibility features, which make the homes more ‘visit-able’ and accessible than conventional homes. Given the limited accessibility requirements, it is important to distinguish Visitable design from Universal Design. The Visitability movement initially started in consideration of mainly people with physical disabilities. The movement was intended to make the community inclusive by making every home have basic accessibility, so that people with physical disabilities can be an active part of the social fabric of their community by visiting their families, friends, and neighbours without architectural barriers.

As the Visitability movement progresses, greater benefits of the Visitable design have been acknowledged. Some of the benefits identified in this literature include aging in place, safety, user-friendliness, and aesthetics, as well as accessibility for people with mobility difficulties. These benefits make Visitable homes attractive and marketable to broader consumer groups. However, the literature suggested some concerns related to Visitable housing, such as additional costs associated with building Visitable homes, loss of living space due to larger hallway and bathroom on the main floor, and site/construction issues. Researchers and professionals alike have presented recommendations that can mitigate the concerns and challenges related to Visitable housing. These recommendations include: careful planning at the onset of construction; incentives and supports from government; consumer awareness campaigns; awareness and training of building professionals; and policy development.

References

Adams, S. (2001). *Living independently: Linking housing and care services for older people*. Bringhton, UK: Pavilion Publishing Ltd.

American Association of Retired Persons. (2000). *The 2000: Fixing to stay*. Retrieved from http://assets.aarp.org/rgcenter/il/home_mod.pdf.

Bakker, R. (1997). *Elder Design: Designing and furnishing a home for your later years*. New York: Penguin Books.

Bakker, R. (1999). Elder design: Home modifications for enhanced safety and self-care. *Care Management Journals: Journal of Long Term Home Health Care*, 1(1), 47-54.

Burns, N. (2004). Negotiating difference: Disabled people's experiences of house builders. *Housing Studies*, 19(5), 765–780.

Canadian Centre on Disability Studies. (2007). *Understanding the status of visitability in Canada. Final Report*. Retrieved from http://disabilitystudies.ca/licproject/files/2011/07/2007-Visitability-Final-Report.pdf.

Canadian Centre on Disability Studies. (2009). *Welcoming Communities: Creating Visitable Housing in Winnipeg. Final Report*.

Canada Mortgage and Housing Corporation (1999). *Housing for older Canadians: The definitive guide to the over-55 market*. Retrieved from http://www.cmhc-schl.gc.ca/odpub/pdf/67514.pdf.

Canada Mortgage and Housing Corporation. (2010). *Preventing falls on stairs*. Retrieved from http://www.cmhc-schl.gc.ca/en/co/maho/adse/adse_001.cfm.

Chappell, N.L., Havens, B., Honorary, D., Hollander, M.J., Miller, J.A., & McWilliam, C. (2002). Comparative costs of home care and residential care. *The Gerontological Society of America*, 44(3), 389–400.

Chen, L.H., Warner, M., Fingerhut, L., Makuc, D. (2009). Injury episodes and circumstances: National health interview survey 1997–2007. National Center for Health Statistics. *Vital Health Statistics*, 10(241).

Croucher, K., Hicks, L., & Jackson, K. (2006). *Housing with care for later life*. University of York: UK.

Employment and Social Development Canada. (2013). *Addressing the challenges and opportunities of ageing in Canada*. Retrieved from the website of Government of Canada, http://www.hrsdc.gc.ca/eng/seniors/reports/aging.shtml.

Hall, R.I. (1999). Architectural practices and disabling design in the built environment. *Environment and Planning B: Planning and Design*, 26, 409-425.

Houben, P.P.J. (2001). Changing Housing for elderly people and co-ordination issues in Europe. *Housing Studies,* 16(5), 651–673.

Imric, H.R. (1999). Architectural practices and disabling design in the built environment. *Environment and Planning B: Planning and Design*, 26, 409-425.

Ipsos MORI. (2000). *Poverty and poor health create isolation in older people*. Retrieved from http://www.ipsos-mori.com/researchpublications/researcharchive/1557/Poverty-And-Poor-Health-Create-Isolation-In-Older-People.aspx.

June, K. S. (2003). Effects of functional disability, personal assistance, and built environment features on the relocation of older persons. *Housing and Society*, 30(2), 139-160.

Kaminski, S.E., Mazumdar, S., DiMento, J.F.C., & Geis, G. (2006). The viability of voluntary visitability: A case study of Irvine's approach. *Journal of Disability Policy Studies*, 17(1), 49–56.

Kochera, A. (2002). *Falls among older persons and the role of the home: An analysis of cost, incidence, and potential savings from home modification*. Issue Brief. Public Policy Institute. Retrieved from http://assets.aarp.org/rgcenter/il/ib56_falls.pdf.

Maisel, J. (2005). *Visitability as an approach to inclusive housing design and community development: A look at its emergence, growth, and challenges*. Center for Inclusive Design and Environmental Access (IDEA), Buff alo, NY.

Manitoba Housing and Renewal Corporation. (n.d.). *Visitable housing design*. Retrieved from http://www.gov.mb.ca/housing/visitable_housing.html

Nair, K. (2005). The physically ageing body and the use of space. In G.J. Andrews & D.R. Phillips, *Ageing and place: Perspectives, policy, practice* (pp. 110-117). London and New York: Rougledge Taylor & Francis Group.

Pauls, J. (1998). *Techniques for evaluating three key environmental factors in stairway-related falls*. In Proceedings of the Human Factors and Ergonomics Society 42nd Annual Meeting (p. 1630). Santa Monica, CA: SAGE Publications.

Progressive Accessibility Re-form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram (2006). *Visitable housing: Community building through visitable & adaptable housing*. Retrieved from http://www.visitablehousingcanada.com/documents/cost%20analysis%20report/VisitableCosts_Report_MHRC_for%20website.pdf.

Progressive Accessibility Re-form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram (2007). *Visitable housing: Cost estimate summary*. Retrieved from http://www.visitablehousingcanada.com/documents/cost%20analysis%20report/Visitable Costs_Report_MHRC_for%20website.pdf

Pynoos, J., Caraviello, R., & Cicero, C. (2009). Lifelong housing: The anchor in aging-friendly communities. *Journal of the American Society on Aging*, 33(2), 26-32.

Pynoos, J. & Nishita, C. M. (2003). The Cost and financing of home modifications in the United States. *Journal of Disability Policy Studies*, 14(2), 68–73.

Rehabilitation Engineering Research Center on Universal Design at Buffalo. (n.d.). *Visit-ability: An approach to universal design in housing*. Retrieved from http://idea.ap.buffalo.edu//Publications/pdfs/VisBkVer3703.pdf.

Rogers, M.E., Rogers, N.L., Takeshima, N., & Islam, M.M. (2004). Reducing the risk for falls in the homes of older adults. *Journal of Housing For the Elderly*, 18(2), 29-39.

Spegal, K. & Liebig, P. (n.d.). *Visitability: Trends, approaches, and outcomes*. California Department of Housing and Community. Retrieved from http://gero.usc.edu/nrcshhm/research/pages/VA%20PAPER.pdf.

Statistics Canada. (2006). *Deaths 2004*. Cat. no. 84F0211-XIE.

Startzell, J.K., Owens, D.A., Mulfinger, L.M., Cavanagh, P.R. (2000). Stair negotiation in older people: A review. *Journal of the American Geriatrics Society*, 48, 567–580.

Steven Winter Associates. (1993). *Cost of accessible housing*. United States Department of Housing and Urban Development, Washington.

Truesdale, S. & Steinfeld, E. (n.d.). *Visit-ability: An approach to universal design in housing*. Rehabilitation Engineering Research Center (RERC) on Universal Design, University of Buffalo. Retrieved from http://idea.ap.buffalo.edu//Publications/pdfs/VisBkVer3703.pdf.

Visitability: Becoming a national trend? (2003). Ragged Edge Magazaine, 24(1). Retrieved from http://www.raggededgemagazine.com/0103/visitability.html.

Visitability Issues (2003). *Ragged Edge Magazaine*, 24(1). Retrieved from http://www.raggededgemagazine.com/0103/visitcostmarket.html#cost

Wagnild. G. (2001). Growing old at home. *Journal of Housing for the Elderly*, 14, 71-84.

Ward, M. (2005). *Universal housing design "It just makes good sense*". Presentation at the National Housing Conference. Australian Network for Universal Housing Design.

Wister, A.V. (2005). The built environment, health, and longevity. *Journal of Housing for the Elderly*, 19(2), 49-70.

ENVIRONMENTAL SCAN

Background

Purpose of the Environmental Scan

The purpose of the environmental scan is to acquire and use information about events, trends, policies, practices and resources with respect to Visitability. The knowledge will assist in developing and implementing strategies to promote Visitable housing. The environmental scan helps the researchers to understand the external forces that impact Visitability so that they may develop effective strategies to conduct their research. An environmental scan helps to avoid surprises, identifies threats and opportunities, and it helps to support strategic planning. In addition, it helps to identify gaps and provide and strategies to promote Visitable housing. Environmental scanning includes both looking at information (viewing) and looking for information (searching).

In this environmental scan, the following areas are viewed:

- Visitability initiatives and projects
- Policies with respect to Visitable housing
- Notable People in the Visitability field
- Government funding and incentives for Visitable and accessible housing
- Resources
- Personal Stories

Approach

Information and resources obtained through CCDS' previous work on Visitability informed the scan. In addition, an online search was conducted to examine Visitable housing projects that currently exist in Canada and to a lesser degree in the U.S. and other international countries. A variety of different key search terms including visitable, accessible, universal design and livability were used. Numerous telephone conversations and email correspondence with stakeholders provided detailed information on current and recent Visitability and Universal Design projects in Canada.

Initiatives and Projects

Although there are a variety of Visitable housing examples, there are several initiatives and projects that appear to be leaders in the field.

Bridgwater Project

Region: Winnipeg, Manitoba

Period: 2006 – 2021

Purpose/Goal: Proceeds from the development of the Bridgwater Neighbourhood are being directed towards revitalizing areas of need and are reinvested into a Housing Development and Rehabilitation Fund (HDRF), which supports the Manitoba government's overall housing strategy and the commitment to create 1,500 social housing units over five years.

Lead organization and contact:

Manitoba Housing and Renewal Corporation, Manitoba Government

Dwayne Rewniak, Director, Land Development

Phone: (204) 945-4703 Email: Dwayne.rewniak@mb.gov.ca

Project/Organization Website: http://www.bridgwaterneighbourhoods.com

Project Description:

Bridgwater Project is a new housing development initiative involving the following three residential neighbourhoods and a Town Centre in the Waverly West area in south west Winnipeg.

Bridgwater Forest – Located in the north east corner on 375 acres of land, Bridgwater Forest is the area's first residential neighbourhood. The concept of Visitability had not been fully introduced when Bridgwater Forest was built, but was piloted in a few select phases. Of the planned 1,000 single family dwellings and 500 townhouse and apartment-style condos, it is estimated that there will be close to 40 single-family visitable homes and a couple of hundred units of multi-family housing built to the visitable standard. Over 90% of the lots in Bridgwater Forest have been sold and the neighbourhood will be completely occupied by 2015.

Bridgwater Lakes – Bridgwater Lakes is located in the north west corner on 312 acres of land. Bridgwater Lakes is being developed in four phases and will be comprised of 1,190 single-family homes; half of which are to be 'Visitable'. There are currently over 250 occupied homes in the neighbourhood. This may be one of the first neighbourhood plans in Canada that enables and requires such a large proportion of housing to be built as Visitable.

Bridgwater Trails – Located in the south west quadrant, Bridgwater Trails is the newest residential neighbourhood, and 50% of the 1,040 single family lots have been designed as Visitable lots. Phase 1 lots are serviced and Manitoba Housing expects lots in this phase will be made available to Bridgwater builders in 2014.

The combined total of Visitable single family lots in Bridgwater Lakes and Bridgwater Trails is about 1,150 lots, excluding the multi-family sites which could all be Visitable.
Bridgwater Centre – Plans are underway for a 75 acre town centre that will feature a unique blend of commercial, residential, retail and office spaces. Over 1,000 units of multi-family housing is planned for the town centre, and visitable housing design features will be strongly encouraged.

Home Building Project by Spence Neighbourhood Association (SNA)

Region: Winnipeg, Manitoba

Period: 2009 to 2013

Purpose/Goal: To provide housing affordable to low income families.

Lead Organization and contact:

Spence Neighbourhood Association

Isabel Jerez, Housing Coordinator

Phone: (204) 783.2758 Email: housing@spenceneighbourhood.org

Project/Organization Website: www.spenceneighbourhood.org

Project Description

The Spence Neighbourhood Association (SNA) is a non-profit community housing organization. It covers a small area in inner city Winnipeg from Portage Avenue to Balmoral, and from Agnes

to Notre Dame. SNA launched this building project, building 35 – 37 houses, four of which were visitable. The houses were all in-fills and they were built on land that had been purchased from the city, by the SNA. The buildings were built after much community consultation and they were all sold to low income families.

Home for Life™

Region: Edmonton, Alberta

Period: The project is planning to have the Guidelines developed and printed by the end December 2013

Purpose/Goal: To develop guidelines to promote inclusion. The main objective of the Home for Life™ initiative is to develop guidelines to build residential homes that are accessible for people of all abilities.

Lead Organization and contact:

The lead organization is a subcommittee of the Vision for an Age Friendly Edmonton. It is funded by the City of Edmonton.

Grace Maier

Phone: (780) 735-8834 Email: Grace.Maier@albertahealthservices.ca

Project/Organization Website: http://www.emmanuelhome.ab.ca/

Project Description:

The Home for Life™ Guidelines are intended to be used as a tool to encourage the inclusion of user-friendly, safe design features which seek to enhance the quality of life for all occupants at all stages of life in new construction. The Guideline serves as a checklist to achieve this goal. Currently, there is a gap in the supply of single family housing which has physically accessible necessities of home, such as: kitchens, bathrooms and a bedroom, for people of all ages and mobility levels. There are unlimited, cost effective ways to create such Homes for Life™ easily and with minimum expense, to meet the changing needs of the occupants by taking into account, the following categories:

- Ease of entry regardless of mobility or transportation aids (walkers, wheelchairs, strollers, etc)
- Ease of movement safely in an environment that is risk averse:
    - appropriate lighting with lower light switches and higher electrical outlets
    - appropriate flooring
    - wider hallways and doorways;

- First floor to include: three-piece bathroom (or provision of space to support three piece, bathroom with a curb-less shower), bedroom, laundry room, and kitchen
- Easy and cost-effective adaptation

The ultimate goal for these design approaches is to allow people to “age in place”, so that they can remain in their own homes and as part of their existing communities for as long as possible. The funder for the project is the City of Edmonton

Hunt Coulee Village (HCV)

Region: County of Rocky View, near Calgary, Alberta

Period: Completion by September, 2016

Purpose/Goal: To provide housing options that allow aging residents to be better supported and independent in their rural environments.

Lead organization and contacts:

The Western Rocky View Communities Development Society (CDS)

Lori Kovacs

Phone: 403-828-7826, Email: lori@theruralway.ca

Project/Organization Website: http://theruralway.ca

Project description:

Hunt Coulee Village (HCV) is a leading edge development project in Alberta that preserves agricultural lands while balancing a community need for seniors housing.

Targeted to older rural adults (55+), the Village will be built in a country setting, featuring low density housing, access to the open natural environment, amenities such as community gardens, a greenhouse, workshops and a back-to-the-basics philosophy of neighbor helping neighbor care.One of the main principles is that partners incorporate universal design throughout the buildings and landscaping.

The project contemplates an initial phase of 60 units (mix of townhomes and cottage style single family units) and amenity facilities. The total planned density for the site is for 120 units. Interest and inquiries indicate the HCV prototype is a market opportunity with potential for growth in the larger rural senior housing market.

Flex-Plex Housing Affordability Project

Region: Saanich, British Columbia

Period: 2001 - 2010

Purpose/Goal: The intent of the project was to create accessible, affordable housing and the first legal suites in Saanich in a project that could be replicated in the region. Legal suites, also known as legal secondary suites for in-laws, are permitted in defined areas of Saanich. They are wholly contained within the single family dwelling and are not connected to the main house.

Lead Organization and contact:

The Victoria Home Builders Association initiated the project, secured the land, hired the designers, etc. They handed it off to Habitat for Humanity to build the project.

Project description:

This project was built to be accessible to persons with limited mobility. Four of the five units would qualify as Visitable Housing. However, not all of the units are equally or fully accessible. Two of the five units have accessible one bedroom rental units built into the lower floor (which are accessible through an external chair lift, wider doorways, and wheel-chair accessible shower). One of the three multi-level units was modified to accommodate a family with a child who uses a wheelchair. This unit (and only this unit) has an internal elevator as well as being appropriately equipped (with lifts) to move the child from her bedroom to the bathroom)

Habitat for Humanity Victoria Project

Region: British Columbia

Purpose/Goal:

Funder: The project was funded by corporate sponsors, foundation grants, government grants (via BC Housing and “forgivable” loans from CMHC), special interests groups, private individuals and in-kind donations.

Project/Organization Website:

The Vistoria Home Builders Association - www.vhba.ca

The Habitat for Humanity - www.habitatvictoria.com

Lead Organization and contact:

Yolanda M. Meijer, Executive Director

Habitat for Humanity Victoria

Phone: 250-220-4559 / ReStore 250-386-7867 Email: execdirector@habitatvictoria.com

Casey Edge

Executive Director
Victoria Home Builders Association
Phone: (250) 383-5044 Email: cedge@vhba.ca

Project Description:

The District of Saanich has developed Adaptable Housing regulations and guidelines with mandatory building standards for Basic Adaptable Housing and Voluntary Design Guidelines that apply to all newly constructed apartment buildings that share a corridor and are serviced by elevator to provide greater accessibility and adaptability.

When Adaptable Housing regulations came into effect, all building permits issued for apartment buildings with an elevator had to comply with the regulation. During the initial 3 year period, it was reported that building permits for 23 buildings (not projects), with a total of 656 dwelling units, have been issued under the adaptable housing requirements.

Abbotsford Seniors Housing Study

Region: Abbotsford, British Columbia
Period: Started in 2010
Purpose/Goal: This study is intended to review housing options for a 65 years or older population
Lead Organization and contact: City of Abbotsford
Phone: (605) 864-5510
Project/Organization Website: www.abbotsford.ca
Project Description:

In the Abbotsford Seniors Housing Study, project participants reviewed numerous housing options for a population of 65 years or older. [That population is expected to double from 13.3% to 19.5% (37,005) by 2031.] Focus was placed on housing need, affordability, accessibility, Visitability, as well as innovative housing types and design. The participants examined housing options such as Visitable housing, adaptable housing, multi-generational housing, secondary and garden suites, cohousing, pocket housing, and various senior housing projects. As a result of their consultation, it was recommended that current and future housing should focus on affordability, accessibility and visitability. It was determined that the policy, zoning, and bylaw review could strengthen the vision of creating an inclusive complete community.

Measuring Up the North

Region: Northern British Columbina communities including Queen Charlotte Island, Valemount, Fort Nelson and 100 Mile House

Purpose/Goal: To create livable, disability-friendly, age-friendly, universally designed, inclusive communities that benefit for all citizens and visitors.

Lead Organization and contact:

Laurie Ringaert

lringaert@gmail.com

Project/Organization Website: *http://measureupthenorth.com*

Project Description:

The Project used a community participatory action and community development approach to empower and build community capacity. The principles of the Project included local control by local partners, universal design, facilitation and support of planning accessibility and inclusion throughout the Project, bringing together the right people and ensuring the dignity, respect and inclusion of all partners within an intergenerational approach. It was anticipated there would be increased participation and inclusion of persons with disabilities and older adults in all aspects of the community.

Successes ranged from numerous northern communities building Visitable environments with accessible trails, sidewalks, transportation, businesses, child care centres, recreational sites, and housing. Additional communities established their own committees. Changes included: many people with disabilities and older adults became active with local government through serving on the committees, many people became employed, and changes in attitudes were seen in local governments and businesses. Twenty communities received the first MUTN Implementation Award in May 2008.

The Prince George Visitable Housing (VH) Project

Region: Prince George, British Columbia

Period: Completed in 2011

Purpose/Goal: The City set up a Visitable Housing Project with the objective of compiling a comprehensive information package to assist the City in developing policies, guidelines or mandatory regulations to promote Visitable housing for new single-or semi-detached homes.

Lead Organization and contact: The City of Prince George

Tiina Watt, Supervisor, Long Range Planning

Phone: (250) 561-7731 Email: kwatt@city.pg.bc.ca

Project/Organization Website: www.princegeorge.ca

http://www.princegeorge.ca/citybusiness/longrangeplanning/studies/VHP/pages/default.aspx

Project Description:

The Prince George Visitable Housing (VH) Project was developed to prepare objectives, policies, voluntary Visitable guidelines and mandatory Visitable regulations to encourage the application of Visitable design and construction for new single and two-family home construction in the city.

The City of Prince George undertook an initiative aimed at implementing Visitable housing. The project identified a number of best practices. In March 2011, the City approved the recommendations for voluntary guidelines and mandatory regulations. This includes preparing objectives and policies for Visitable housing within the Official Community Plan review that: identifies the creation of Visitable housing as a community objective; contemplates further analysis of Visitable housing within an amenity contribution policy and incentives packages; provides direction to consider the Visitable Housing Voluntary Design Guidelines as part of the development review process; and requires that, on land sold by the City of Prince George, no less than 15% of newly constructed market-rate single and semi-detached homes be Visitable and all newly constructed affordable (non-market) single and semi-detached homes be Visitable.

The researched practices, stakeholder consultation and the Prince George Home Builders survey identified the participation of home builders is key to success and that the City should

continue to support accessibility in the community by providing a leadership role through its own land disposition, but also as a key source of information, and by facilitating the conversation that needs to begin with home builders

Tr'ondek Hwech'in Project

Region: Tr'ondek Hwech'in, Dawson City, Yukon

Period: The Northern Sustainable Housing initiative started in 2002 and will likely be completed in 2015 once the post-occupancy performance monitoring of the Arviat project has been completed. CMHC is currently working with northern housing stakeholders to explore opportunities to extend the Northern Sustainable Housing initiative to multi-unit residential buildings. If successful, the initiative would run between 2013 through 2016.

Purpose/Goal: The project is part of CMHC's Northern Sustainable Housing Initiative. Under this initiative, CMHC is working with northern housing providers to design, build and demonstrate models for northern housing that are highly energy efficient and culturally appropriate. The homes built under the initiative were designed in consideration of CMHC's "FlexHouse" concept. FlexHousing focuses on sustainability, accessibility, Visitability, aging-in-place and adaptability.

Project Description:

Tr'ondek Hwech'in is a First Nations community in Dawson. The project has built two homes in Tr'ondek Hwech'in. To the extent possible, the homes include FlexHouse features that allow the homes to better meet occupant needs as their lives evolve and change over time. CMHC targeted one Northern Sustainable Housing project in each territory. Thus far, the reaction of the housing agencies, stakeholders and occupants have been very positive.

Lead Organization and contact:

Canada Mortage and Housing Corporation and NWT Housing Corporation

Cate Soroczan (CMHC)

Phone: (613) 748-2284 Email: csorocza@cmhc.ca

Duncan Hill, P. Eng. Sustainable Housing Policy and Research Policy, Research and Planning

Phone: (613) 748-2984 Email: dhill@cmhc.ca

Scott Reid (NWT Housing Corporation Contact), Director, Infrastructure Services

Phone: (867) 873-7875 Email: Scott_Reid@gov.nt.ca

Project/Organization Website:

http://www.energy.gov.yk.ca/pdf/bill_semple_the_northern_sustainable__house__energy_issues_and_solutions.pdf

Canada Mortgage and Housing Corporation Initiatives

Below are a number of CMHC project profile websites. For ease of access, the name of the project, the location and the number of units has been provided for each site.

1) Ken Val United church Suites

Three United Churcehs in the Kennebecasis Valley, developed two buildings – one for seniors, and one for persons with disabilities, in partnership with CMHC.

- Quispamsis, New Brunswick
- 16 units (12 units for seniors; 4 unit barrier-free residence for people with disabilities.)

http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/Ken-Val-Suites_EN.pdf

2) The Homestead

The Homestead, an affordable rental project got its initial boost in 2003 when the town of Cochrane agreed to provide a site through a 60-year lease with a nominal rent. CMHC and the provincial government provided over one million dollars through the Affordable Housing Initiative.

- Cochrane, Alberta
- 21 units (2 units are wheelchair accessible)

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/Homestead_En.pdf

3) Alice Bissett Residence

CMHC, Alberta government, Calgary, Calgary Homeless Foundation, Calgary Home Builders Foundation, Alberta Gaming and Horizon Housing Society partnered in providing supportive and affordable housing for a diverse clientele. Alice Bissett Residence opened in 2009.

- Calgary, Alberta
- 114 units for persons with mental illnesses, brain injuries, physical disabilities, and low-income seniors and families. A 5 bedroom apartment pod is for five brain-injured tenants who will receive round-the-clock support.

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/Alice_Bissett_EN.pdf

4) Jenny's Spring Housing Co-operative

CMHC, New Brunswick government, Jenny's Spring Housing Co-operative collaborated to provide affordable housing. Through the Affordable Housing Initiative, the federal and provincial governments provided investments to ensure the success of the building. The new building received $480,000 in federal funding toward construction costs, and $971,655 in rent supplements from the Province of New Brunswick.

- Saint John, New Brunswick
- 12 units, including two accessible apartments

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/Jenny-Spring-Co-op-EN.pdf

5) TVM Doctor Powers Residence

The TVM Doctor Powers Residences provide 24 affordable, accessible units for seniors and people with disabilities in a redeveloped elementary school. CMHC, the government of Ontario, County of Northumberland, Municipality of the Town of Port Hope, Kawartha Pine Ridge School Board and Habitat for Humanity Northmberland were involved.

- Port Hope, Ontario
- 24 affordable, accessible units for seniors and people with disabilities in a redeveloped elementary school

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/TVM_Schoolhouse_EN.pdf

6) 59 Adelaide

A local entrepreneur used a hands-on approach to create affordable housing for lower income households and persons with disabilities. Remmcor Developments, CMHC, the Government of Ontario, the City of the Municipality of Chatham-Kent and the Ontario March of Dimes were involved.

- Chatham, Ontario
- 14 units (4 of the units are wheelchair accessible)

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/59_Adelaide_EN.pdf

7) Three Links Co-op

The Three Links Housing Co-op was originally built in 1983 under the Federal Co-operative housing Program. By 2004, the four accessible units needed upgrading to meet design standards required for wheelchair access. Through the CMHC Residential Rehabilitation

Assistance Program for Persons with Disabilities the project received $72,000 of the $93,375 in renovation costs.

- Barrie, Ontario
- The Co-op consists of 80 units and four bungalows are designed for members with disabilities.

Reference: http://www.cmhc.ca/en/inpr/afhoce/afhoce/prpr/upload/66734_EN_w.pdf

Bolingbrook Initiative

Region: Bolingbrook, Illinois, the United States

Period: 1999 – 2003 - The first draft was developed in 1999 at which time, encouraged builders to volunteer compliance with the proposed visitability code. All of the builders to complied voluntarily, with all or most criteria required by the proposed code. The Visitability Code came into law on June 24th, 2003.

Purpose/Goal: The purpose of this initiative was to establish the minimum regulations for the design, installation and construction of single family and attached single family homes, by providing reasonable criteria for Visitability by persons with disabilities.

Lead Organization and contact: Village of Bolingbrook

Daniel G. Buonamici, Building Commissioner

Phone: (630) 226-8470 Email: *dbuonami@bolingbrook.com*

Project/Organization Website: *http://crilhayward.org/policies-advocacy/docs/Bolingbrook-UD-article.pdf*

Project Description:

Bolingbrook did not have a specific building initiative. Instead, the village developed a Visitabilty code. In late 1998, a member of Bolingbrook's disability community met with the Mayor and Village staff and highlighted the importance of visitable homes and the growing need for this type of housing product. Subsequent to the meeting, the Mayor instructed staff to determine the cost of building visitable housing and to draft policy on visitable housing for approval by the community. The survey determined that to build a new house with visitability features would cost an average price increase of $2911. (Approximately 1.5%) per home. Name of the ordinance: Bolingbrook Visitability Code

Initially, the builders were opposed to these changes. After meeting with Village staff and members of the disability community, along with architects and other design professionals, many of the builders changed their point of view and were on board with the proposed changes.

Currently Bolingbrook has close to 3000 homes that are Visitable and some subdivisions are still under construction. The town's population is 74,000. The number of people that have

disabilities and live in Bolingbrook is growing partially due to the number of accessible homes in the community, but also due to the fact that people can stay in their homes should they acquire disabilities. They are not forced to find accessible housing elsewhere.

People appreciate the larger doorways and hallways and most really appreciate the no-step entrance. Those with young children in strollers, tote carts used for shopping, those who are moving large appliances or pieces of furniture all see the value in the Visitability features. "Over the last few years I have found I can use these features as selling points, because eventually people want to get top dollar for their homes," said Eric Jensen, a sales consultant for Realty World Jensen, Bolingbrook.

Two new subdivisions are under construction. One is a single family home subdivision and the other is a town-home subdivision in Bolingbrook.

Notable People in Visitability or Universal Design

Glen Manning

Affiliation: Landscape Architect, HTFC Planning &Design

Region: Manitoba

Contact Information: (204) 944-9907 gmanning@htfc.mb.ca

Involvement with Visitability/Universal Design:

Glen is a landscape architect and principal with HTFC Planning & Design, keenly interested in the quality of accessible public spaces. He has provided universal design services and advice on a number of major public works in Winnipeg, including the Disraeli Freeway rehabilitation, the Manitoba Hydro Building, and Osborne Bridge, receiving Accessibility Awards from the City of Winnipeg for the Provencher paired bridges project and Steinkopf Gardens rehabilitation. Glen was the lead author of Manitoba Housing Renewal Corporation's visitable housing policy manual, and led the Province's Visitable Housing Consultant team between 2006 and 2008. Following this he joined CCDS's Think Tank on Visitability and remained an active member of CCDS's Visitable Housing Working Group until the project wrapped up in 2010.

Eleanor Smith

Affiliation: Concrete Change

Region: USA

Contact Information: (404) 378-7455 eleanors@mindspring.com

Involvement with Visitability/Universal Design:

Eleanor Smith is the founder of Concrete Change, an organization whose mission is to make sure all housing built in the U.S. is accessible to those with disabilities. She brought awareness to three tenets of visitability: 36" wide doors, reinforced bathroom walls, and one zero-step entrance.

Jake Pauls

Affiliation: Jake Pauls Consulting Services

Region: International

Contact Information: bldguse@aol.com

Involvement in Visitability/Universal Design:

Jake has researched and advocated for technical changes and policy issues in codes/standards bridging ergonomics (human factors) in building safety with standards, codes and regulations as well as personal-injury litigation. His work has focused on pervasive hazards in homes.

Brad McCannell

Affiliation: Founder and president of Canadian Barrier Free Design Inc. (CBFD)

Region: Vancouver, British Columbia

Contact Information: (604) 838-6927 info@barrierfreedesign.ca

Involvement in Visitability/Universal Design:

In 1990, Brad formed Canadian Barrier Free Design Inc. (CBFD) to fill the gap between the application of the building code and the real needs of the community of persons with disabilities. He has extensive experience in developing the entire accessible environment including retrofitting existing facilities, new construction planning, employee training as well as developing tools for human resource management as it relates to people with disabilities.

He is the Access Consultant on several large British Columbia projects including the 2010 Winter Olympic and Paralympic Games, the Vancouver Convention Centre Expansion Project, the re-development of the Vancouver International Airport, and the Skytrain rapid transit system.

Avi Friedman

Affiliation: Architect, McGill School of Architecture

Region: Montreal, Quebec

Contact Information: (514) 398-4923

Involvement in Visitability/Universal Design:

The concept of the flexible housing concept has its roots in the innovative Grow Home1 developed in 1990 by Avi Friedman and Witold Rybczynski of the McGill University School of Architecture in Montréal. Designed to be affordable for low-income households, the Grow Home incorporated flexible and adaptable living spaces within a small footprint (approximately 93 m2 / 1,000 sq. ft. in a 4.3 m / 14 ft. wide, three-storey townhouse).

Building on the Grow Home concept, and the subsequent Next Home, CMHC created FlexHousing in 1995 as part of the universal design/inclusive design movement.

In 1988 Friedman he co-founded the Affordable Homes Program at the McGill School of Architecture, where he is a Professor.

Ron Wickman

Affiliation: Architect, Wickman Ron Architect

Region: Edmonton, Alberta

Contact Information: (780) 430-9935 rwickman@shaw.ca

Involvement in Visitability/Universal Design:

For more than 10 years, Ron Wickman has been a leading advocate for barrier-free design in buildings and landscapes. As an architect, his commitment to accessible housing and his award-winning practical and functional designs have earned him national recognition as an expert in accessibility and barrier-free design. "As an architect, Ron Wickman has been a great champion of universal design with the goal of designing buildings and facilities so that they serve the greatest number of people, regardless of ability," notes one of his clients.

Bob Topping

Affiliation: Architect, Designable Environments Inc.

Region: Ontario

Contact Information: (905) 278-0665 bob.topping@designable.net

Involvement in Visitability/Universal Design:

Bob Topping is a Canadian architect. For over 20 years he has focused his work on accessibility issues and universal design through his consulting company, Designable Environments Inc. Bob

has worked as an accessibility specialist on many projects in Canada including the Mississauga Bus Rapid Transit System, Air Canada Centre, Ricoh Coliseum, Windsor Casino and the Four Seasons Center for the Performing Arts. As the author of numerous municipal accessibility design standards, and through his work on technical committees for both Canadian and international accessibility standards, Bob has extensive experience in accessibility-related legislation and standards development, including the Accessibility for Ontarians with Disabilities Act (AODA).

Laurie Ringaert

Affiliation: Accessibility consultant

Region: International

Contact Information: lringaert@gmail.com

Involvement in visitability/Universal Design:

Project Director of Measuring of the North in Prince George, BC, working for the North Central Municipal Association and the BC Paraplegic Association. Laurie Ringaert is a researcher, educator, consultant and occupational therapist who has been involved in universal design/access issues for over 30 years. She has worked on many codes/standards and policy committees nationally and internationally. Laurie is also considered to be a national and international leader in research, evaluation, education, policy analysis and consultation on universal design of communities, aging/disability issues, age-friendly communities, age-friendly tourism, chronic conditions, healthy built environments, community-based health programs, participatory action research and related public health issues.

Lanny L. M. Silver

Affiliation: Architect, Lanny Silver Architect

Region: Winnipeg, Manitoba

Contact Information: (204) 944-0464 info@lannysilverarchitect.ca

Involvement in Visitability/Universal Design:

In 2007, Silver and his colleagues published a report, "*Visitable Housing, Cost Estimate summary.*" The report is based on a case study which examined costs involved in building two single-family detached houses in Winnipeg. The summary indicated that interior costs are negligible if planned at the outset. Most of the identified additional costs related to creating the accessible route to the door and the no step entry. In the design case studies, these modifications added value through creating more amenity space and more interest in the

landscape. He said that Visitable homes built in isolation without any pre-planning are the most expensive option. The strategy of pairing visitable homes to avoid retaining walls along the side yards should be considered if visitable homes are to be incorporated into a development. Total integration is implemented by the "hands on" approach of Mr. Silver, who completely involves himself in all stages of the projects from the beginning to the end of the project.

Edward Steinfeld

Affiliation: Architect and gerontologist, The State University of New York, Buffalo (UB).
Region: New York
Contact Information: (716) 829-5899 arced@buffalo.edu
Involvement in Visitability/Universal Design:
Dr. Steinfeld is a Professor of Architecture and Director of the IDeA Center, which he founded in 1984. He serves on the Board of Directors of the Global Universal Design Commission, Inc. He has directed over 30 sponsored research projects, including two centers of excellence grants from the National Institute on Disability and Rehabilitation Research (NIDRR), one on Universal Design and the Built Environment (RERC-UD) and the other on Accessible Public Transportation (RERC-APT). Many of his publications are considered key references in the fields of accessible and universal design.

Elaine Ostroff

Affiliation: Director of Access to Design Professions
Region: Boston, Massachusetts
Contact Information: **(**617) 695-1225 (v/tty) info@HumanCenteredDesign.org
Involvement in Visitability/Universal Design:
Elaine Ostroff, Hon. AIA, co-founded Adaptive Environments in 1978, which is now the Institute for Human Centered Design (IHCD). In 1989, she developed the Universal Design Education Project (UDEP) with design educators. UDEP became an international model for infusing universal design in professional design curriculum, emphasizing the involvement of people with functional limitations in the teaching and learning process. She coined the term “user/expert” to identify the individuals whose personal experiences give them unique critical capacity to evaluate environments. She directs the Access to Design Professions Project at IHCD, to encourage people with disabilities to enter the design profession as a way to improve the practice of universal design.

Jim Mueller

Affiliation: Founder of J.L. Mueller, Inc

Wireless Rehabilitation Engineering Research Center

Region: Virginia, U.S.A.

Contact Information: (703) 222-5808 jim@jlmueller.com

Involvement in Visitability/Universal Design:

Jim Mueller is an industrial designer with more than 20 years of experience in assistive technology, disability management, and universal design. He is recognized as one of the most experienced practitioners and advocates of universal design - design for people of all ages and abilities - and is one of the authors of the 7 Principles of Universal Design. His clients have included Federal and State agencies, private employers, disability insurers, and product manufacturers. His design projects have included a Technical Support Facility for a rehabilitation center, concealed head protection for seizure-prone individuals, a portable, wheelchair-accessible miniature golf course for an elementary school, and an experimental electric wheelchair for testing seating and lightweight frame design. He has also consulted on the design of business furniture, personal computers, and telecommunications products.

James Lenker

Affiliation: Associate Professor in the Department Rehabilitation Sciences and the Director of the Graduate Certificate Program in Assistive and Rehabilitation Technology at the University at Buffalo

Region: New York

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Involvement in Visitability/Universal Design:

Dr. Lenker teaches in the Occupational Therapy program and directs the Graduate Certificate Program in Assistive and Rehabilitation Technology. His research experience includes projects that bridge engineering and technology to the fields of universal design and occupational therapy. At the IDEA Center, Dr. Lenker has directed research projects for the Rehabilitation Engineering Research Center (RERC) on Universal Design, as well as the RERC on Accessible Public Transportation (RERC-APT). His UD research focuses on 3 areas: (a) outcomes research associated with home modifications, (b) best practice strategies for implementation of Complete Streets projects, and (c) evaluation of consumer product usability for adults with disabilities.

Jordana Maisel

Affiliation: Director of Outreach and Policy Studies, Co-Director of the RERC on Universal Design in the Built Environment, and
Adjunct Assistant Professor, School of Architecture and Planning, at the University at Buffalo
Region: New York
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Involvement in Visitability/Universal Design:

As an urban planner, Ms. Maisel's interests include improving the built environment, fostering neighborhood development and revitalization, and developing public policy. Her research includes projects on the effectiveness of universal design, policy and planning issues related to inclusive housing design strategies and streetscape design, and evidence based guidelines for universal design. She is the co-author of Universal Design: Creating Inclusive Environments (Wiley & Sons, Inc., 2012).

Personal Stories

Mind The Gap

An Architect Devotes Himself Entirely to the Pursuit of Universal Access Using Some Very Basic Strategies.

By: RON WICKMAN 2008-04-01

I was only three months old when my father was injured in an industrial accident that rendered him a paraplegic. Growing up after the accident, I experienced the built environment from the unique perspective of travelling around with someone who uses a wheelchair. My father and I rarely entered a building in the same way as the majority of others; the service entrance was the norm for us. We were also less likely to visit friends at their homes. Helping my father up to the front door from a set of exterior stairs was both dangerous and a reminder that he had less independence than others. Even when we did visit someone else's home, our stay was usually short because my father was unable to use the washroom. It is because of these types of experiences that I chose to work in the field of architecture. And working as an architect, I now realize how easy it is to design a building or space to be more useable by more people, including persons with disabilities. The concept of "visitability" is one of the simplest and most economical approaches to universal design that can address homeowners' and community needs over time, contributing to a more flexible and sustainable built environment. Visitability ensures that everyone--regardless of mobility--will be able to at least visit someone else's home and use the washroom.

My personal quest is to help other architects learn more about universal design more generally and visitability specifically. Frank Lloyd Wright stated that "form and function are one." To me, this means that architecture involves making buildings and spaces as accessible to as many people as possible. Today, too many architects focus on the business and aesthetic dimensions of design, and little attention is given to the end users of their creations. I know from personal experience the benefits of focusing on the end users of a building or space. I have had the satisfaction of seeing someone independently access

his/her home or a public building for which I am responsible. With my own house renovation, I poured a new sidewalk leading to the front door that provided smooth, on-grade access straight into the front door. Before the renovation, three steps led up to the front door, and my wheelchair-bound father had to park his van in the driveway and phone us to come out and help him inside. After the renovation, my father can now wheel himself straight into our family home. It was a seemingly small design gesture--but one with a huge emotional impact.
http://www.canadianarchitect.com/news/mind-the-gap/1000221485/

Related Government Subsidies and Assistance in Canada

Canadian Provinces and Territories provide cost savings or assistance to homeowners and landlords for accessibility modifications for persons with disabilities and for seniors.

British Columbia

The Home Adaptations for Independence (HAFI) program provides financial assistance to help eligible low-income seniors and people with disabilities with home modifications for accessible, safe and independent living. For more information, visit
http://www.bchousing.org/Options/Home_Renovations

Manitoba

The Home Adaptations for Seniors provides assistance to homeowners and landlords for accessibility modifications for seniors. The province also offers Residential Adaptations for Disabilities Program which consists of forgivable loans to homeowners and landlords for accessibility modifications for persons with disabilities. Both programs are included under the CMHC — Manitoba Agreement for Investment in Affordable Housing. More information about this program is available at
http://www.gov.mb.ca/housing/pubs/repair_programs/residential_adaptations_disabilities_english.pdf.

Ontario

Existing Funding for Home Modifications for Seniors & Persons with Disabilities in Ontario are as follows.

1) Home & Vehicle Modifications Program

- Funded by Ministry of Community and Social Services, administered by Ontario March of Dimes
- $15,000 lifetime maximum for home modifications

Reference: http://www.marchofdimes.ca/EN/programs/hvmp/Pages/HomeandVehicle.aspx

2) Ontario Renovates

- The Ontario Renovates program is funded by the federal and provincial governments through the Investment in Affordable Housing (IAH) program. The Ontario Renovates Program offers financial assistance to low to moderate income families to increase accessibility of their unit through modifications and adaptation
- The Ontario Renovates components that relate to home accessibility consist of two sub components:
  - Home Repair to assist low to moderate income home owner household to increase accessibility of their unit through modifications and adaptations
  - Multi-Unit Rehabilitation to assist landlords of eligible affordable rental projects to rehabilitate units that require essential repairs and/or modify units to increase accessibility
- General eligible renovations include**;**
  - Modifications to increase accessibility related to housing and reasonably related to the occupant's disability including: ramps, handrails, chair and bath lifts, height adjustments to countertops, cues for doorbells/fire alarms
  - Creation of self-contained secondary suites for affordable rental purposes and garden suites for seniors and/or persons with disabilities.
  - Funding for accessibility repairs, up to a maximum of $3,500 is in the form of a grant. Funding in excess of $3500 is in the form of a forgivable loan. The actual amount of assistance is based on the cost of repairs. Eligibility for the home repair subcomponent is means tested and requires home ownership.

Reference: http://www.mah.gov.on.ca/AssetFactory.aspx?did=9288

3) Workplace Safety & Insurance Board (WSIB)

- Unlimited funds but based on injury and circumstances
- Occupational therapists do home assessments.

4) Veterans Affairs Canada

- Veteran (no limit) or spouse ($5,500) eligible

5) Settlements from Auto Insurance and Personal Injury Lawsuits

- Auto accidents, medical malpractice, slip and fall
- Occupational therapists conduct needs assessment for legal counsel.

6) Healthy Home Renovation Tax Credit

- Tax credit worth up to $1,500 each year, calculated as 15 per cent of up to $10,000 in eligible home renovation expenses that will help seniors stay safely in their homes.

Reference: http://www.mah.gov.on.ca/AssetFactory.aspx?did=9288

New Brunswick

Forgivable loans are available to homeowners occupying substandard housing to undertake repairs, and to homeowners and landlords to undertake accessibility modifications to units occupied by seniors or persons with disabilities.
More information about this program is available at
http://www2.gnb.ca/content/gnb/en/services/services_renderer.8735.html
The province also offers Housing Assistance for Persons with Disabilities
Forgivable in the form of loans to homeowners or landlords to undertake accessibility modifications or create a secondary/garden suite units occupied by persons with disabilities.
More information about this program is available at
http://www2.gnb.ca/content/gnb/en/services/services_renderer.19576.html

Nova Scotia

Financial assistance is available to senior citizens for repairs to their home that represent a threat to health or safety. More information about the Senior Citizens Assistance Program is available at
http://www.gov.ns.ca/coms/housing/seniors/SeniorCitizensAssistance.html

In addition, Nova Scotia also has the Home Adaptations for Seniors' Independence (HASI) which provides assistance to homeowners for adaptations to extend the time that low-income seniors can live in their own homes independently. More information about this program is available at
http://www.gov.ns.ca/coms/housing/seniors/SeniorsIndependence.html

The province also offers a Disabled Residential Rehabilitation Assistance Program (RRAP) for Persons with Disabilities which is financial assistance for accessibility modifications for persons with disabilities. For more information, follow the following links.
http://www.gov.ns.ca/coms/housing/homeowner/DDRAPforHomeowners.html
http://www.gov.ns.ca/coms/housing/landlords/DRRAPforLandlords.html

Saskatchewan

The Saskatchewan Home Repair Program, Adaptations for Independence offers forgivable loans to undertake accessibility work to modify dwellings occupied by persons with disabilities. More information about this program is available at
http://www.socialservices.gov.sk.ca/H08-FS.pdf

The Home Adaptations for Seniors' Independence (HASI)

This program offers assistance in the form of a forgivable loan of up to $3,500 for minor home adaptations that will enable low-income seniors with age-related physical issues to continue living independently and safely in their home.
Provinces and Territories may choose to design and deliver renovation programs that are cost-shared with the federal government. Information on Provincially/Territorially designed and delivered housing programs are provided under Affordable Housing Programs Across Canada.
Reference: http://www.cmhc-schl.gc.ca/en/co/prfinas/prfinas_004.cfm

Residential Rehabilitation Assistance Program for Persons with Disabilities

Canada Mortgage and Housing Corporation (CMHC) offers financial assistance to allow homeowners and landlords to pay for modifications to make their property more accessible to persons with disabilities. These modifications are intended to eliminate physical barriers, imminent safety risks and improve the ability to meet the demands of daily living within the home.

Modifications must be related to housing and reasonably related to the occupant's disability. Examples of eligible modifications are ramps, handrails, chair lifts, bath lifts, height adjustments to countertops and cues for doorbells/fire alarms.
If the cost for modifications is more than the maximum forgivable loan available, the owner will be required to cover the additional cost.
To be eligible, the household income and house value must be at or below established ceilings for the geographic location of the property and the dwelling must be occupied or intended for occupancy by a person with a disability
RRAP-D — Residential Rehabilitation Assistance Program for Persons with Disabilities
Reference: http://www.cmhc-schl.gc.ca/en/co/prfinas/prfinas_003.cfm

Veterans Independence Program

The Veterans Independence Program (VIP) helps veterans remain independent and self-sufficient in their home and community. Depending on the individuals' circumstances and health needs they may qualify for financial assistance to obtain services such as grounds maintenance; housekeeping; personal care; access to nutrition; health and support services provided by a health professional. VIP does not replace other federal, provincial or municipal programs. Instead its role is to complement existing programs to help meet individual needs. In an interview with Veteran's Affairs, it was reported that home adaptations to modify areas such as bathrooms, kitchens and doorways so that it is easier to perform basic everyday activities, funds can provided for modifications based on eligibility and an occupational therapist's assessment.

Resources

VisitableHousingCanada.Com

Author: Canadian Centre on Disability Studies (CCDS)
Description: This website contains information about a national Visitability project that CCDS is carrying out. The website also contains an array of information and resources related to Visitable housing.

A Visit from Pops

Author: Ron Wickman
Description: An illustrated children's book about visitability (in press)

Libby and the Cape of Visitability

Authors: Eleanor Smith and Nadeen Green

Description: A children's book. Written for children ages 8-13, this book raises awareness of the exclusion created when houses are not built with simple features that allow wheelchair users to visit or live in them.

Visitable Housing: Community Building through Visitable & Adaptable Housing

Authors: Progressive Accessibility Re-Form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram (2006)

Description: This report presents a comprehensive review of Visitable housing. The report describes the concept of Visitable housing, related terminology, and Visitability design requirements, and provides solutions to obstacles, recommendations and strategies to promote Visitable housing.

Available at: http://visitablehousingcanada.com

Canada MHC Maintaining Seniors' Independence through Home Adaptations

Author: Canadian Mortgage and Housing Corporation (2009)

Description: A self-assessment guide. A detailed guide for seniors or caregivers to assess challenges in the home environment, with suggested checklists of strategies to compensate for the challenges in each part of the home.

Available at: https://www03.cmhc-schl.gc.ca/catalog/productDetail.cfm?cat=17&itm=13&lang=en&fr=1383190119687

Welcome Home: Universal Design, Sustainable Design, and Baby Boomers

Author: 2012 American Institute of Architects National Convention and Design Exposition

Description: Proceedings of the 2012 American Institute of Architects National Convention and Design Exposition. The session presents the results of a nationwide survey to prioritize the features of home design important to prospective buyers within the baby boom generation. Features include those concerned with universal design, sustainable design, and "cool" (elegant) design.

Available at: http://www.aia.org/aiaucmp/groups/aia/documents/pdf/aiab094871.pdf

Visitable Housing: Cost Estimate Summary

Authors: Progressive Accessibility Re-Form Associates, Lanny L.M. Silver Architect, and Hilderman Thomas Frank Cram (2006)

Description: This report describes the results of a case study on costs of building three Visitable houses in Winnipeg, Manitoba. The article presents details about the costs associated with building Visitable homes and example designs and strategies.

Available at: http://visitablehousingcanada.com

Visit-ability: An Approach to Universal Design in Housing

Authors: Steven Truesdale & Edward Steinfeld

Description: It is an excellent source of detailed information on Visitability, providing the reader with a basic understanding of the Visitability, along with good practice examples and cost estimates for Visitable features. The booklet provides diagrams for modifications to retrofit an existing building to become visitable and discusses advocacy strategies for implement visitability. Although the article is American, much information can be applied to Canada.

Available at: http://idea.ap.buffalo.edu//visitability/Booklet/VisBk%20Ver3-7-03.pdf

Accessibility

Author: Janice L. Rieger, BID, MA, IDEC

Description: A powerpoint presentation. This resource provides a 20 point list of accessible design features along with attractive photographs of accessible rooms.

Available at:
http://www.chbaalberta.ca/uploads/files/Technical%20Issues%20Info/Accessibility_New_Home_Construction.pdf

Universal Housing Design "It just makes good sense."

Author: Margaret Ward (2005)

Description: At the 2005 National Housing Conference in Perth Australia, Margaret Ward presented a paper, Universal Housing Design *"It just makes good sense."* With this paper, Ward reported on the Australian Network for Universal Housing Design (ANUHD)'s 2002 survey on public perspectives on accessibility housing in Australia. The paper also contains benefits of Universal Design to government and to the community, and recommendations.

Available at: http://www.nhc.edu.au/downloads/2005/DayTwo/WardM_Paper.pdf.

Canada Global Age-Friendly Cities Project

Author: District of Saanich, British Columbia, Canada

Description: The brochure, a report on the Canada Global Age-Friendly Cities Project, which provides an overview of the project, focuses on the city's on the environmental and social factors that contribute to healthy, active aging in urban settings.

Available at:

http://www.saanich.ca/parkrec/community/pdf/SaanichWHOAgeFriendlyCitiesReport.pdf.

AARP's Increasing Home Access: Designing for Visitability

Author: Jordana L. Maisel, Eleanor Smith, and Edward Steinfeld (2008)

Description: This is a detailed report on Visitability initiatives that support aging independently in the home and community. Authors Jordana Maisel and Edward Steinfeld of the Center for Inclusive Design and Environmental Access (IDEA) and Eleanor Smith of Concrete Change discuss the barriers to visitability implementation and opportunities for further acceptance of these design parameters in the construction of new homes.

Available at: http://assets.aarp.org/rgcenter/il/2008_14_access.pdf

Conclusion

Search terms yielded many results. Given the large volume of material found on accessibility and universal design from a global perspective, the scan focuses on Visitability in Canada and the U.S.A.

Although the reports on highly esteemed designers and advocates promoting Visitability are considerable, a similar degree of lived experience is not reflected in the documentation. Since the notion of Visitability is relatively new, many initiatives are still in the planning and experimental stages. At most, persons who have experienced Visitable housing, have not been surveyed for their feedback on their experience, hence the paucity of available information.

Initiatives and projects that are reported on, were at various stages of development and at different degrees of experience. The common thread that ran through each initiative, was that the stakeholders spent much time and energy planning their built communities and their planned built communities. They also went to the effort of ensuring that the right people had a place at the discussion table.

POLICY REVIEW: Visitability and Home Accessibility

Background

This policy scan will highlight the visitable policies and legislation enacted in various jurisdictions. Much of the policies and legislation, particularly in the United States fall under the following categories:

- Builder Mandates Tied to Use of Public Funds
- Builder Mandates, Beyond Public Subsidies
- Builder Incentives
- Consumer Incentives
- Consumer Awareness/Promotion

In European countries, the policies and laws appear to require visitability or visitable-like features, rather than incenting buyers and builders to create these forms of housing. These policies also tend to go beyond the public domain.

Canada

Vancouver, British Columbia

Name of Policy/Legislation: TBD

Adopted: 2013

Features: The City wants all new single-family, townhouse and laneway homes to meet minimum accessibility standards.

Among the changes the city wants to make:

- Widening hallways to 900 millimetres, or 35.4 inches.
- Widening doorways to 800 millimetres, or 31.5 inches.
- Widening stairways to 915 millimetres, or 36 inches, to allow for mechanical lifts.
- Two peep holes in front doors, one at wheelchair height.
- Lever handles on all plumbing fixtures.
- Lever handles on all doors.
- Wheelchair-accessible building controls, such as thermostats
- Require a bathroom on the lowest inhabitable level of a home.
- Wall reinforcements for bathroom grab bars to be added in future.

- Modified bathtub plumbing to allow for future replacement of tubs with easy entry shower stalls.
- Electrical receptacles raised higher on walls.

Mandatory or Voluntary: Mandatory

Manitoba

Name of Policy/Legislation: Winnipeg Visitable Housing Guidelines

Adopted: 2006

Purpose/Goal/Requirements: The goal of these guidelines are to advance the implementation of visitable housing in Manitoba. These guidelines are complemented by draft policy recommendations, design guidelines, educational materials, and implementation strategies tailored to suit the Manitoba marketplace.

Mandatory or Voluntary: Voluntary

Saanich, British Columbia

Name of Policy/Legislation: Amendments to Zoning By-Law

Adopted: November 2003

Purpose/Goal: This Amendment requires that most newly-constructed apartment buildings and seniors' congregate care facilities be built to include Basic Adaptable Housing standards. Building permits issued for apartment buildings with an elevator and common corridor must comply with the new regulations.

Those applying for rezoning, subdivision and development permit applications are also encouraged to incorporate features from the voluntary design guidelines for apartment buildings, townhouses, and single-family homes.

Mandatory or Voluntary: Mandatory/Voluntary

Reference: http://www.saanich.ca/business/adaptable/adaptable.html

Additional Information: The guidelines are as follows:

1. Basic Adaptable Housing

   The mandatory guidelines for Basic Adaptable Housing features include barrier-free access to all suites and amenity areas, wider doorways, manoeuvring room at suite entries and corridors, access to a main-floor bathroom, reinforcement of bathroom walls for future installation of grab bars, and accessible door handles, switches, and outlets.

   Basic Adaptable Housing is required for newly-constructed residential buildings serviced by an elevator containing apartment or congregate housing uses.

2. Enhanced Adaptable Housing

The voluntary Enhanced Adapatable Housing Design Guidelines apply to apartment buildings. They provide a higher level of accessible and adaptable features than Basic Adaptable and are appropriate, for example, for seniors housing. Those applying for rezoning and development permit applications for apartment buildings are encouraged to incorporate as many of these features as possible.

3. Single Family and Townhouse Adaptable Housing

Accessibility and adaptability are also important for ground-oriented housing. The intent is to provide the flexibility to enable an occupant to live on the ground floor if necessary, and to improve general accessibility into and throughout the dwelling unit.

A no-step entry can usually be incorporated without a ramp by grading the walkway to the front door. Builders undertaking subdivisions and construction projects are encouraged to incorporate the voluntary Single Family and Townhouse Adaptable Housing Design Guidelines into their developments.

The United States

State of Florida

Name of Policy/Legislation: Florida Bathroom Law

Adopted: 1989

Features: This law only requires one feature. The habitable-grade level bathrooms of single-family dwellings, duplexes, triplexes, condominiums, and town homes must have a 29'' clear opening. Oversight is provided by local building departments, in connection with their other enforcement responsibilities.

Mandatory or Voluntary: Mandatory

Jurisdiction: Atlanta

Name of Policy/Legislation: Atlanta Visitability Ordinance

Adopted: 1992

Requirements: mandates all builders of new single-family dwellings, duplexes or triplexes, who receive any financial benefit from or through the city, must meet several basic access requirements, including at least one zero-step entrance and adequate interior door widths.

Mandatory or Voluntary: Mandatory

Pima County (Arizona)

Name of Policy/Legislation: Pima County Inclusive Home Design Ordinance

Adopted: 2002

Purpose/Goal: Requires Vistable features

Mandatory or Voluntary: Mandatory

Additional information: In 2003, the Southern Arizona Home Builders Association sued Pima County over the legality of the Visitability Ordinance. In a unanimous decision, the Arizona Court put to rest efforts by Tucson builders to void Pima County's law requiring minimal access in newly constructed single-family homes. By 2008, Tucson, AZ had built 15,000 Visit-able homes.

Reference: http://cms3.tucsonaz.gov/files/dsd/InclusiveHomeDesignOrdinance.pdf

Bolingbrook, Illinois

Name of Policy/Legislation: Visitability Code

Adopted: 2003

Requirements: Applies to all new single detached dwelling unit. Zero-step entry. 36 inches minimum for interior doors and 42 inch wide corridors. Half bath on main floor-- the city is rewriting its building code to require that 10 percent of single-family homes or townhouses in a planned development be visitable and 10 percent be adaptable. There is also 32 inch door clearance on the second floor.

Mandatory or Voluntary: Bolingbrook initially approved a voluntary Visitability ordinance that was unsuccessful among homebuilders. In order to make homebuilders comply, Bolingbrook enforced an ordinance.

Reference: http://www.bolingbrook.com/info/pdf/VisitabltyCde1_09_09.pdf

Freehold Borough, NJ

Adopted: 1997

Requirements: Waives construction permit fees for the addition or construction of accessibility features. The ordinance does not explicitly define what qualifies as accessibility features, but the city has shown a willingness to waive fees for commonly recognized features such as ramps. To date, however, the fee waivers have only been applied to rehabilitation of existing homes. The applicability of the ordinance to accessibility features offered in new homes has not been tested because Freehold Borough has very little new construction activity.

Mandatory or Voluntary: Voluntary/Incentive

Austin, TX

Name of Policy/Legislation: N/A

Adopted: 1998

Requirements: Applies to new single family homes, duplexes, triplexes built with public funds. Requires at least one no-step entrance on accessible route; minimum opening 32 inches, All interior doors on first floor must be minimum 30 inches opening and lever handles. 36 inch wide level route provided through main floor of unit.

Mandatory or Voluntary: Mandatory

Irvine, CA

Name of Policy/Legislation: Universal Design Program

Adopted: 1999

Requirements: Applies to new single family homes. Home builders can offer any combination of 33 features to prospective home buyers.

Mandatory or Voluntary: Voluntary

Urbana, IL

Adopted: 2000

Requirements: Applies to new single family dwellings, duplexes and triplexes built with public funds. Requires at least one no-step entrance on accessible route; minimum opening 32 inches.

Mandatory or Voluntary: Mandatory

Visalia, CA

Adopted: 2001

Requirements: Applies to new single family homes. Zero-step entry, usually through the garage. A maximum of 1 inch threshold at this entrance.

Mandatory or Voluntary: Voluntary/Certificate Program

San Antonio, TX

Adopted: 2002

Requirements: Applies to new single family homes, duplexes, triplexes built with public funds. Requires zero-step entry, 32 inch minimum doors.

Mandatory or Voluntary: Mandatory

Onondaga County, NY

Adopted: 2002

Requirements: Applies on a voluntary basis to new single family homes and duplexes built with public funds. Design recommendations include zero-step entry, 32 inch minimum doorways on first floor. Maneuvering clearance on 1st floor bathrooms and kitchen.

Mandatory or Voluntary: Voluntary

Southampton, NY

Adopted: 2002

Requirements: Applies to new one and two family detached housing

Mandatory or Voluntary: Voluntary/Incentive Based. Requires one zero-step entry. 32 inch clearance on first-floor doors. 32 inch wide hallways. 1/2 bath on first floor that is wheelchair maneuverable. A $300 credit is offered for building larger homes that have more expensive permit fees. If builder or homeowner include home modifications to improve accessibility, building permits are fast-tracked.

Naperville, IL

Adopted: 2002

Requirements: Applies to all new single family homes. Requires wider first floor interior doors.

Mandatory or Voluntary: Mandatory

Long Beach, CA

Adopted: 2002

Requirements: Applies to all single-family or duplex dwelling units built with public funds. At least one no-step entrance on accessible route, and 32 inch minimum for interior doors, and corridors shall be at least 36 inches wide. Bathroom door opening shall provide a minimum of 32 inches nominal clear space.

Mandatory or Voluntary: Mandatory

Iowa City, Iowa

Requirements: 2002

Purpose/Goal: Applies to all dwelling units built with public funds. Requires Visitable features

Mandatory or Voluntary: Mandatory

Escanaba, MI

Name of Policy/Legislation: The Visitability Ordinance, No. 1024

Adopted: 2003

Requirements: $150 rebate from the city to property owners who incorporate these features after a compliance inspection.

Mandatory or Voluntary: Voluntary/Consumer Incentive

Chicago, IL

Adopted: 2003

Purpose/Goal: 20 percent single family homes and townhomes in planned developments must be "adaptable" or "visitable". Visitable Homes: stair-free entrance, wide doors on first floor, usable bathroom and one room that can be used as bedroom. Adaptable Homes have a stair-free entrance, usable kitchens, bathrooms and wide door on all floors and a shaft or staircase in which a buyer can install a wheelchair lift.

Mandatory or Voluntary: Mandatory

Houston, TX

Adopted: 2003

Requirements: Applies to affordable housing.

Mandatory or Voluntary: Voluntary - incentives to developers. ORDINANCE 2004-0024: appropriating $200,000.00 out of Low Income Housing Fund 162 and adopting Guidelines to establish a Voluntary Visitability Program to provide incentives to developers of Affordable Housing to Implement the Design Specifications of Ordinance No. 2003-1239 ($400/per home for affordable housing developers who voluntarily make their units wheelchair accessible)

Pittsburgh, PA

Name of Policy/Legislation: Pittsburgh Visitability Ordinance

Adopted: 2004

Requirements: Newly constructed or substantially renovated single family dwellings, duplexes, triplexes, town houses and row houses. Any structure hit with a property tax increase because of disabled-related building improvements will receive up to a $2500 tax credit over five years. The credit is only on city property taxes.

Mandatory or Voluntary: Voluntary – Tax incentive

St. Petersburg

Requirements: Applies to all new one to three unit homes built with public funds.

Adopted: 2004

Requirements: At least one no-step entrance on an accessible route. (The inclusion of a ramp shall not be required where grading is impractical or when a ramp is not acceptable to the applicant seeking financial assistance from the City). At least one no-step entrance on an accessible route. (The inclusion of a ramp shall not be required where grading is impractical or when a ramp is not acceptable to the applicant seeking financial assistance from the City).

Mandatory or Voluntary: Mandatory

Toledo, OH

Adopted: 2005

Requirements: Applies to all new one to three unit homes, subsized (any government funds) and built within the City of Toledo. Provide at least one no step entrance. The required no step entrance shall be accessed via a visitable route. All doors and openings shall have a minumum net clear width of 32 inches. All hallways and corridors on the main floor shall be at least 36 inches in width.

Mandatory or Voluntary: Mandatory

Auburn, NY

Adopted: 2005

Requirements: Applies to single-family homes, duplexes and triplexes which are constructed with public funds. Applicable dwelling units shall be designed and constructed to American National Standards Institute (ANSI) standards

Mandatory or Voluntary: Mandatory

Scranton, PA

Adopted: 2005

Requirements: Applies to all new one to three unit homes built with public funds.

Mandatory or Voluntary: Mandatory

Arvada, CO

Adopted: 2005

Requirements: 15% of all new dwelling units must be visitable or visitable adaptable; an additional 15% must include interior visitable features. Visitable dwelling units shall be provided with a step-free or accessible entrance on an accessible route that complies with ANSI standards.

Mandatory or Voluntary: Mandatory

Milwaukee, WI

Adopted: 2006

Requirements: Applies to new/substantially rehabilitated multi-family subsidized housing. Requires zero-step entry, interior accessible route 32 inches wide, and usable first floor bathroom.

Mandatory or Voluntary: Mandatory

Montgomery County, Maryland

Name of Policy/Legislation: Design for Life Program

Adopted: 2007

Requirements: Applies to all new home building and renovation in single family attached and detached homes. At least one entrance shall have a no step entry at the front door, back door, side door (any door), deck or through the garage on an accessible route. The accessible route shall extend from a vehicular drop off, or parking to a no step building entrance. Accessible routes shall consist of one or more of the following components: • Walking surfaces with a slope not steeper than 1:20. • Doorways, ramps, curb ramps, elevators, and wheelchair (platform) lifts. • Floor or ground surfaces shall be stable, firm, and slip resistant. Dwelling units with a building entrance on an accessible route shall be designed in such a manner that all the doorways designed to allow passage into and within all areas required to be accessible have a clear opening width of at least 32 inches when the door is open 90 degrees, measured between the face of the door and the stop. Openings more than 24 inches in depth are not considered doorways. Dwelling units with a building entrance on an accessible route shall have a circulation path that is at least 36-inches wide. The circulation paths shall connect the accessible entrance to at least one powder room or bathroom, and one other room that can accommodate visitation.

Mandatory or Voluntary: Voluntary

Reference: http://www.montgomerycountymd.gov/HHS-Program/ADS/DFLM/DesignForLifeMontgomery.html

Rockford, IL

Adopted: 2007

Requirements: Applies to all new one to three unit homes built with public funds. These homes are to be built with Visitable features.

Mandatory or Voluntary: Mandatory

Davis, CA

Adopted: 2007

Requirements: 100 percent of all new market rate and middle income single-family residential units shall be developed with visitability and all new single-family affordable residential units shall be developed with first floor accessibility (includes bedroom).

Mandatory or Voluntary: Voluntary (Facilitate inclusion of accessibility and visitability features to the greatest extent possible, including use of incentives)

Lafayette, CO

Adopted: 2007

Requirements: Aims for 25% of homes with visitable features. The 25% requirement would apply regardless of whether the development consisted of single-family detached or multi-family units. Mixed-use developments that include a vertical mix of uses and have greater than 75% of the units located above the ground floor will be exempt from the requirements. However, ground floor accessible units, up to a maximum of 25% of the total units within the development, will be required to comply. City Council could accept a cash in-lieu payment by a developer if requested prior to the preliminary plan review. Any cash in-lieu payments would be set aside to assist existing, qualified (as determined by Council) homeowners in retrofitting their homes. The Commission may recommend a waiver of the requirements, specifically the zero-step entrance, subject to excessive slope or other site conditions, or existing property restrictions such as excessive easements.

Mandatory or Voluntary: Mandatory

Dublin City, CA

Name of Policy/Legislation: Universal Design Ordinance

Adopted: 2007

Requirements: The universal design ordinance requires developers building more than 20 houses in a given project to install Universal Design features. The ordinance requires the developer to offer a list of optional features to make homes more accessible, such as a zero-step entrance. Items such as this will not be installed unless specifically requested by the buyer.

Mandatory or Voluntary: Mandatory

Birmingham, AL

Adopted: 2007

Purpose/Goal: All new single family homes built with public funds must include Visitable features.

Mandatory or Voluntary: Mandatory

Connecticut

Name of Policy/Legislation: Public Act 10-56 “An Act Concerning Visitable Housing”

Adopted: 2010

Purpose/Goal: The Act spells out what the visitable features are and describes Connecticut’s voluntary model of Visitability

Mandatory or Voluntary: Voluntary

Indiana

Name of Policy/Legislation: INDIANA VISITABILITY RULE FOR ONE AND TWO FAMILY DWELLINGS AND TOWNHOUSES

Adopted: 2005

Purpose/Goal: Spells out Visitability guidelines for homes built with Visitable features

Mandatory or Voluntary: Voluntary

Reference: http://www.in.gov/legislative/iac/iac_title?iact=675 (See Article 27)

Minnesota

Adopted: 2001

Purpose/Goal: The 2001 Minnesota Legislature imposed a visitability requirement on certain new construction financed by Minnesota Housing Finance Agency (Minnesota Housing).

Mandatory or Voluntary: Mandatory

Vermont

Adopted: 2000

Purpose/Goal: The law requires five specific visitable features in 'spec' homes, or those homes built by a developer prior to obtaining a purchaser.

These features include: 1) one first-floor exterior door at least 36 inches wide; 2) 34-in wide first-floor interior doors with thresholds that are ramped or beveled; 3) 36-inch wide level interior hallways; 4) environmental controls and outlets located in accessible locations; and 5) reinforced bathroom walls. The department responsible for enforcement, as well as how many 'spec' homes have been built, is unknown.

Vermont's law also includes a consumer education component. The Department of Aging and Disabilities Assistive Technology Division is in charge of educating home buyers about the visitable homes in an effort to promote public awareness. The Vermont legislature gave the Department authority to build a demonstration house; however, no funds were appropriated for this project.

Mandatory or Voluntary: Mandatory

International

United Kingdom

Adopted: 1993

Purpose/Goal: In the United Kingdom, the Joseph Rowntree Foundation developed the Lifetime Homes program in 1993 that contained 16 design features that ensure a new house or flat will meet the needs of most households. The Foundation's efforts also led to the revision of Part M of the British Building Regulations. This section of the building code requires homebuilders to construct new housing to standards that permit people with disabilities, particularly wheelchair users and those with mobility or ambulant impairments, to visit a house and have access to at least a common space and toilet on the main floor. Wales, Scotland, and Northern Ireland have developed and adopted similar regulations.

Mandatory or Voluntary: Mandatory

Sweden

Adopted: 1994

Purpose/Goal: Accessibility legislation is integrated into the Swedish National Building Code. The main rule regarding accessibility states that "Buildings containing housing, work space and facilities for public use, must be designed and constructed in such a way that they are accessible and usable by persons with limitations of mobility or orientation capabilities" (BVF 1994, §12).

Sweden is also leading the way towards full community-wide accessibility. In 2000, the country adopted a "National Action Plan for Handicap Policy."

Mandatory or Voluntary: Mandatory