

# Builders and Contractors, you ARE up for the challenge!

By Corinna Klassen



In the winter of 2006, we challenged builders and contractors to become part of the movement in considering the needs of our aging and disabled population when building and renovating homes.

On March 1 and 2, 2007, Therapy First, an occupational therapy private practice in Winnipeg, hosted the Human Factors in Design Conference with the goal of bringing together professionals involved in assessing, planning, designing and constructing homes for people with physical challenges. The hope was to better understand the needs of people with mobility impairments and to see how the team of professionals can work together to make the process of building and renovating easier for these individuals.

The conference was a success. We met the goals and have inspired professionals to strive to improve their scope of practice to include individuals with mobility impairments as their clients when building and renovating. We had a diverse audience including city and provincial officials, designers, builders, contractors, planners, program administrators, nurses, educators, universal design consultants, engineers, architects and others.



The concept that participants learned of is the model of Visit-Housing. Visitability is a term which describes a movement range home construction practices so that virtually all new homes—not merely those custom-built for occupants who currently have disabilities—offer a few specific features that make them easier for people who develop a mobility impairment to live in or visit. The specific features that make a home visitable are:

- Wide passage doors of at least 32"
- At least a half bath/powder room on the main floor
- At least one zero-step entrance approached by an accessible route on a firm surface no steeper than 1:12, proceeding from a driveway or public sidewalk

Two guest speakers at the Human Factors in Design Conference were a man and wife in their mid-30s. At his daughter's first day party, he was injured in a fluke accident and sustained a spinal cord injury which meant that he is paralysed from his waist down, being unable to walk or use his hands on a permanent



basis. The couple described their emotional journey of coping with the accident and at the same time deciding whether or not they would have to build a new home or renovate their three-year-old, two-storey home. They decided to renovate their home and include a new bedroom and bathroom on the main floor as well as an elevator to the second floor and basement. During this period, the man had to live alone, 30 minutes away in transitional housing. For over a year, his attendants got him ready for the day and he took Handi-Transit to his family's home. In the evening he left his family to return to the transitional housing unit where his care was provided because of its accessible design. In the end, the family is now living together in their renovated home BUT because he uses a power wheelchair for mobility, they cannot visit the homes of friends and family as the homes are not visitable.

What kind of things can you help facilitate? We're glad you asked! As occupational therapists, our role is to assess the client and consider all of the functional requirements needed for the client to live as independently as possible in their home. We need your help to facilitate the next steps.

Builders, engineers, architects need to consider how the structure might accommodate an interior elevator or vertical platform lift, how the trusses can accommodate an overhead ceiling track system or how door headers need to be modified to accommodate for room to room ceiling track lifts. One of the attendees in the building industry mentioned how surprised he was to learn that there are so many different kinds of wheelchairs – and all with different dimensions that affect how the individual will function within their built environments. Builders can consider for new homes plans or can modify existing home plans to incorporate

32-inch door widths and hallways that allow for wheelchair turning radius. This is simply done and is architecturally appealing as clients often want an "open concept" when building or renovating.

Electricians can help by placing switches lower and electric outlets higher so that someone in a wheelchair can access them. Installing intercoms in various rooms is also an important consideration for someone who may be stuck in bed until they can call a family member to help them out.

Plumbers can ensure that hot water pipes are out of the way so that someone can wheel under a sink and not burn their legs on the pipes. Zero threshold showers can be built so that someone can wheel into the shower stall with a special wheelchair designed for use in the shower.

Window and door contractors can include zero or low profile door thresholds, swing clear hinges, lever style door handles, all of which will allow easy access for a wheelchair. Windows that are placed lower within the walls will allow someone in a wheelchair to look outside!

Concrete suppliers/contractors can work their magic to plan and design beautiful ramps that are incorporated into the landscape so that it is difficult to know that someone who uses a wheelchair lives in that home! If the lot is graded to assist with this, people won't be faced with having to install unsightly ramps that meander back and forth across the front lawn. When building decks, carpenters can ensure that there is a second means of egress from the home by including a ramped exit off of the deck.

Special thanks to all of those brave souls who agreed to participate in the trade show. It was a great networking tool for all who attended!

Therapy First is an occupational therapy private practice based out of Winnipeg, specializing in wheelchair seating, community rehabilitation and home safety and access issues. We are encouraged because some of the top Manitoba builders and contractors took this conference as an opportunity to learn about incorporating Universal Design concepts into their plans and to better understand the needs of people with disabilities. To learn more about Universal Design concepts, what to consider when building for individuals with disabilities, the differences between one wheelchair or another or any other therapy related questions, please contact Therapy First – [www.therapyfirst.ca](http://www.therapyfirst.ca) or call 204-612-0399. 

