

Universal Design and Disability Component of Campus Design Solutions (CDS)

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The Milwaukee Idea

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As a function of the “Universal Design and Disability component of Campus Design Solutions,” Roger O. Smith, Ph.D., OT (Professor of Occupational Therapy) and Todd D. Schwanke, MSE, ATP, both of the College of Health Sciences, have contributed and begun infusing universal design information and expertise into the UW-Milwaukee campus, the urban Milwaukee community, and UW-System. These efforts have ranged in character from direct (Milwaukee Idea Home) to indirect (Design & Disability course); quick impact (employee services) to longer term impact (UW-System white paper); and disguised (ADA Advisory Committee) to explicit (web accessibility short course). This project is making steady progress towards impacting people and projects through an introduction to universal design and the alternate approaches it advances. Given the challenges of a relatively new field and the associated limited availability of resource materials and real-world examples, the CHS team develops, tunes, adapts, and interprets information to match the need of the associated project.

Milwaukee Idea Home

The CHS team has been actively involved with the Milwaukee Idea Home (MIH) project, led by Stan Wrzeski, as the design team attempts not only to conquer affordability and environmental sustainability in a small, high quality, urban home, but also attempts to look closely at universal design and accessibility. The overall team works extremely well together to generate innovative ideas and solutions through idea synergy and by boldly trying and testing new ideas. For example, Mr. Wrzeski may inquire to the CHS team about a question related to disability. The CHS team provides him with essential information rather than a specific solution, so he is able to integrate the information into a solution for the overall project. Two examples of this include a) the movable kitchen island for increased turning space and b) the stairway that can be adapted to allow for the integration of a lift to provide access to the second floor.

The CHS team has been able to contribute knowledge as part of the design team, while at the same time gaining valuable experience in teaching universal design strategies to various audiences. Over the past year Dr. Smith and Mr. Schwanke have tuned the presentation of universal design methods so it can be better understood by a larger set of audiences.

Accomplishments:

- Actively participated in design team meetings and provided ideas, feedback, and recommendations from a universal design perspective. Meeting topics included, but were not limited to, macro floor plan, micro floor plan, garage specifications, environmental controls, plumbing fixtures, furnishings, functional surfaces, and market research.
- Included design information, analysis, and mock-up in Design and Disability course (see below).

Upcoming:

- Submit proposal for presentation at AOTA (American Occupational Therapy Association) 2004 conference in Minneapolis.
- Develop a plan for CHS and OT involvement in the demonstration portion of the first version of the MIH, which is currently under construction at 726 W. Bruce St. in Milwaukee.
- Document universal access and accessibility features of the MIH design for education and marketing purposes.
- Generalize the findings and experiences of the design for future MIH designs and for others looking at constructing small, urban homes.
- Encourage and supervise OT projects and theses related to the MIH.

Design and Disability (OCCTHPY 625)

Previously taught as a special topics course, Design and Disability was proposed and approved this year as an undergraduate/graduate course. It will be offered as OCCTHPY 625 for the first time in the Fall 2003. It is taught cooperatively by Dr. Smith and Mr. Schwanke. This course is an example of how the research and practical component of CDS has been integrated into instruction.

The Milwaukee Idea Home project was made a part of the Design and Disability course in several ways, to benefit both the students and the design team. The MIH is a real response to a real world problem, and it represents a tangible product that students can learn about, analyze, and discuss. It is a particularly unique project for students to get involved in, as it represents a departure from the usual association of accessibility with large spaces, causing them to think more critically about how limited resources can be maximized. Mr. Wrzeski's first presented to the class in the Spring 2002 on the MIH, allowing him to introduce the accessibility features of the design and to integrate feedback from future practitioners and educators. Then, during the Spring 2003 semester, the students were also able to walk and wheel through the mock-up of the kitchen and bathroom in the SARUP building, to discuss what they discovered, and to provide feedback to the team. We expect that the Fall 2003 class will be able to walk and wheel through the real home! We are eager to test it without eyesight, hearing, or typical mobility.

The Design and Disability course includes an analysis and design project. Students apply their knowledge to a focused target on or off campus. Product topics at UWM have included bathrooms in instructional buildings, computer lab layouts, and web-based email (PantherMail). Those off campus have included navigation in an elementary school building, one-way entryways in retail buildings, the layout of a residential home, and software used in the development of education plans for students with disabilities. These projects allow students to benefit from working with real-world examples, while spreading the awareness of universal design on and off campus.

This course has the ability to change the way students think about how the needs of people with disabilities can be met. Even students who have already been practicing in their chosen field related to disability are presented with a new perspective. Usually professional training programs related to disability teach the professional how to meet *individual* needs of the people they work with, when problems arise. This course forces them to take a step back for a more broad view and to consider the possibility of products that meet the needs of *all* users to the

greatest extent possible. It also tests their ideals of the perfect solution when there are competing interests.

Accomplishments:

- Integrated Milwaukee Idea Home information, presentations, feedback, and analysis into Design and Disability in a mutually beneficial way for the students and the design team.
- Provided an opportunity for students to think about meeting the needs of people with disabilities and our aging population with proactive design rather than through reactive individual accommodation.

Upcoming:

- More actively market the course to encourage students from other non disability-related fields (e.g. architecture, business, engineering, etc.) to enroll in the course to create a more multi-disciplinary experience.
- Build a small reference library for class and project use as there is not yet an authoritative reference that pulls together the breadth of theory, applications, and new examples into one place.

Other Universal Design Activities and Accomplishments at UWM

- The CHS team consulted with Dr. Sherry Ahrentzen's Open Doors project, including a guest lecture on universal design.
- Mr. Schwanke teaches a short course on web accessibility for I&MT each semester titled "Accessibility and Universal Design in Web Pages" for students faculty and staff from a "good design" perspective rather than a "compliance" perspective. This course can impact the virtual environment, including personal, departmental, and course web pages.
- Dr. Smith served as primary author on a white paper titled "Commitment to Universal Design in Education" to encourage a state-wide transition from accommodation to universal design in physical space, instruction, and virtual environments. This paper has been recommended by the UWS President's Advisory Committee on Disability for UWS implementation.
- The CHS team submitted grant proposals as a way to build upon this project by developing and piloting universal design strategies in the UWM campus physical environment and instruction.
- Mr. Schwanke continues to be an active participant as a collegial member of the UWM ADA Advisory Committee (ADAAC) as a way to improve campus accessibility through policy and to infuse universal design information.
- Mr. Schwanke contributes assistive technology expertise by periodically providing direct services to students and staff with disabilities. This helps individuals and campus by providing access, but also helps the team identify where universal design could be used to improve the campus environment and systems.