

# ADAPTING FOR DEMENTIA

*Adapting the built environment for long-term care residents with dementia*



## Renovations

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### Background

The Lodge at Broadmead (TLAB) is a 10-year old, 225-bed, non-profit, residential geriatric care facility (nursing home) owned and operated by the Tillicum and Veterans Care Society. It is located in a refined residential neighbourhood of Victoria BC. The facility receives base operational funding from the Vancouver Island Health Authority. More than half of the facility's residents are Veterans eligible for priority access bed status. The majority (67%) of Veteran residents have moderate to severe levels of dementia. All require 24 x 7 supervision and care. Ambulatory Veterans for whom dementia is a primary diagnosis are accommodated in three special lodges, Palm North, Palm South and Magnolia. These Veterans are the primary beneficiaries of a Dementia Care Program funded by Veterans Affairs Canada since 2003 as part of their National Dementia Care Initiative.

The Dementia Care Program at TLAB has several elements, including clinical, educational and environmental. This article focuses on the environmental component: renovations to the built environment. The goal was to renovate the existing lodges in ways that reflect new awareness of the impact of the built environment on persons with dementia. For example, fewer people in one dwelling, reduced noise, and a calm, home-like atmosphere are known to contribute to better functioning and quality of life for residents with dementia<sup>1</sup>.

The majority of renovations in Palm and Magnolia Lodges at TLAB were completed between November 2004 and April 2005.

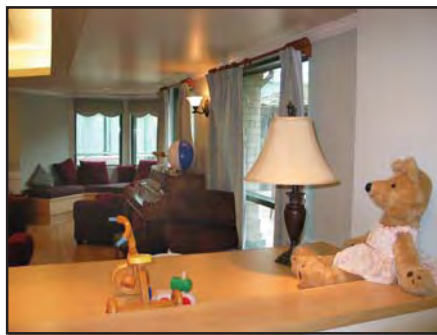
Palm Lodge had been a 32-room unit. (All rooms at TLAB are one-bed rooms.) The principal renovation objective was to create two smaller, more home-like living environments for residents with dementia.

Major components of the renovation project in Palm Lodge involved separating a 32-room unit into two self-contained units, one housing 14 residents and another housing 16 residents, and relocating three sets of dual egress smoke doors within the common corridor areas to delineate the two new living units. In addition, two new resident rooms were constructed in Magnolia Lodge in place of the existing nursing station and bathing room.

Major components of the renovations in the two new lodges, Palm North and Palm South, were the following.

- Constructed approximately 775 square feet (72 square metres) of new living space, utilizing available space within existing courtyards.
- Created 550 square feet (51 square metres) of additional communal space for residents of Palm North by converting two existing resident rooms into a new lounge.
- Installed new magnetic locks and entry/exit keypads for controlled access and resident safety.
- Constructed a new kitchen, dining room, and living room within each of the two new Palm lodges.
- Constructed suitable storage areas for carts and lifts to ensure unobstructed access within corridors and common living areas.

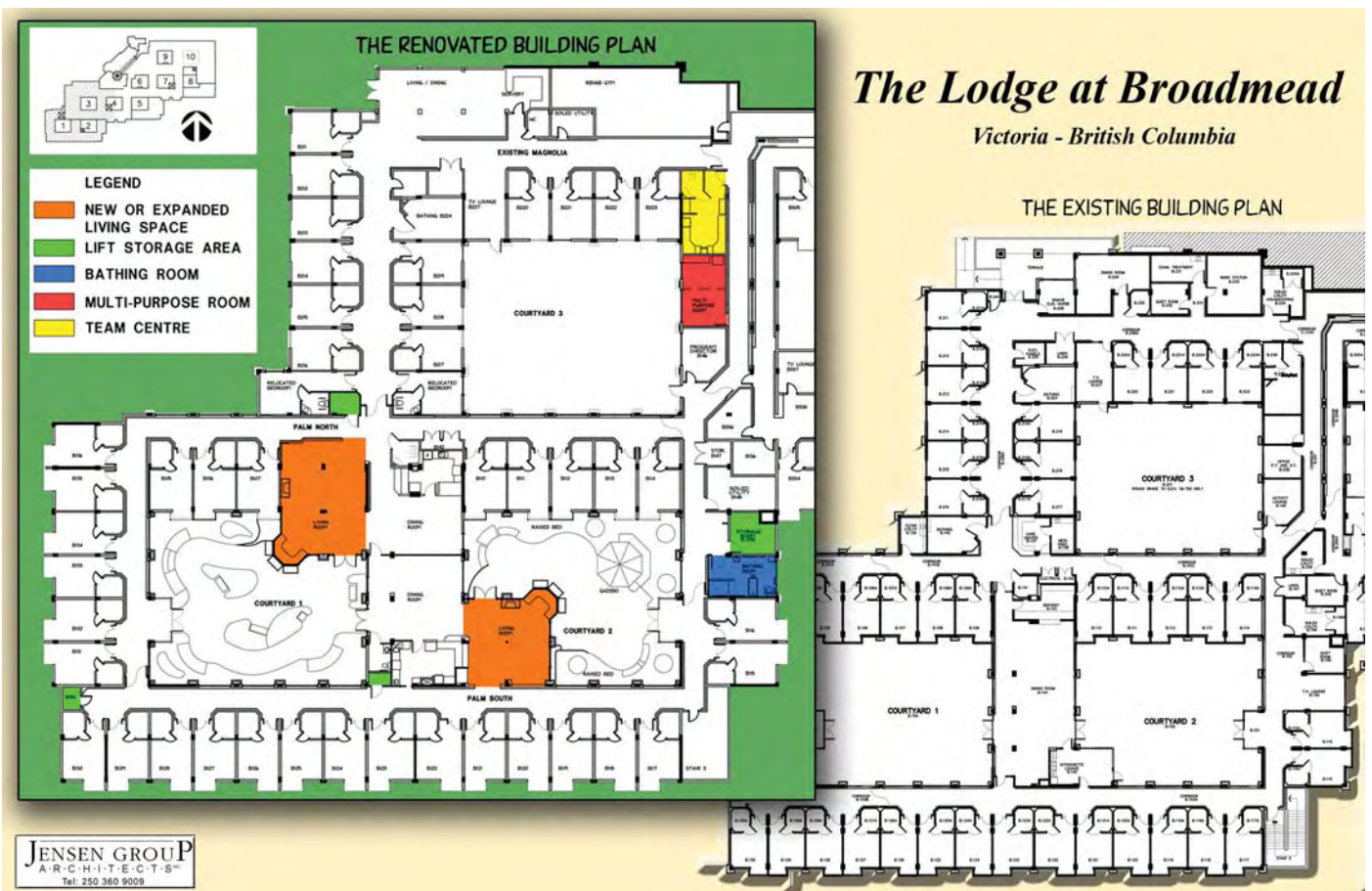
- Created a home-like environment within the common living areas by:
  - constructing kitchens with cabinets, fixtures and appliances that are all residential in scale and style;
  - designing expansion areas to take advantage of natural light and views to the gardens in the courtyards;
  - installing electric fireplaces and new residential furnishings within each of the new common living and dining areas;
  - installing new wallpaper, wall hangings, fabrics, and decorative moldings within the common living areas;
  - painting murals within the communal spaces to create the illusion of a larger and more home-like living space;
  - painting murals at entrance and exit doors to create a warm and welcoming entrance for staff and visitors and to camouflage the exits for residents.
- Reduced the noise factor on the living units by:
  - constructing a new Team Centre just outside the living units, to replace the former nursing station;
  - constructing a new bathing room off the living unit, but conveniently located adjacent to each of the two new lodges;
  - selecting and installing acoustically rated products and furnishings that absorb sound, such as ceiling tiles, chair fabrics, draperies, and wall protection;
  - replacing the existing conventional nurses' call system



with a silent resident call system; and

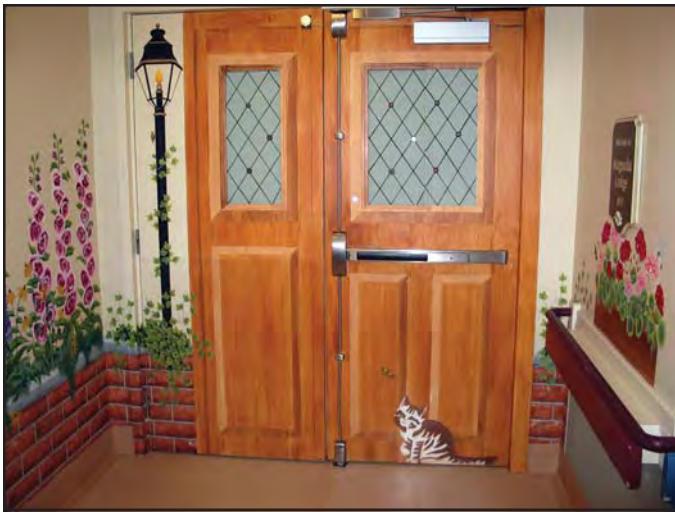
- providing distributed overhead speakers within the common area of each lodge, so that music or DVD sounds would be evenly broadcast (rather than being very loud on one side of the room, and hard to hear on the other).

- Constructed program-specific space both on and off the two lodges with a view to maximizing staff productivity and effective use of available space by:
  - constructing new, locked, medication cabinets so that the administration of medication is less hospital-like (there is no longer a “medication cart”); and
  - constructing storage space for linen carts, portable lifts and activation supplies within all new living and working areas; and
  - constructing a new multi-purpose room separate from the lodges to use for care conferences, staff meetings, and training sessions.
- Outfitted the new Team Centre with office furnishings and equipment to accommodate the interdisciplinary team. The design of the Team Centre includes two telephones, three computers (one of which has the silent resident call system software), a fax machine, personal storage lockers, dedicated storage for nursing supplies, such as clinical tools and medications, and activation supplies, such as craft materials and display boards. A staff bathroom is attached to the Team Centre.



## The Lodge at Broadmead

Victoria - British Columbia



#### Magnolia Front Door

*This mural by Kathy Little [Little Illusions] provides the illusion of a domestic front door. This provides an entrance to the lodge that supports the culture of “home”. The staff, visitors and volunteers first impression of the lodge is of a house rather than a nursing home. It prompts all visitors to reframe how they act within the environment.*



#### Palm North Hallway exit – Horse Mural

*This mural by Kathy Little [Little Illusions] covers a fire exit door at one end of the Palm North hallway. In addition to its' function to camouflage the exit it also acts as an activity area [many residents are found stroking the horse], a distraction and a site for reminiscing.*

### Reactions and responses

Reactions and responses to the renovations were sought from a wide range of perspectives as part of the program evaluation. All have been positive.

Family members and friends of residents and TLAB volunteers who responded to a written survey reported that the quality of their visiting experience has been very much improved as a result of the renovations. They rated residents' quality of life higher after the renovations than they did in a previous survey. The same group described the lodges as “inviting”, “homelike”, “light”, “peaceful” and “less clinical”. They observed that residents are “more at peace”, “happy” and “much calmer”. It was also noted that residents are finding it easier, in the smaller space, to locate their rooms and the living areas. (This is significant, given that the creation of two lodges from one necessitated the creation of “dead end” corridors which were camouflaged by murals.)

Volunteers commented in interviews that residents appear less agitated and are engaging more frequently in activities of daily living, such as making a cup of tea or preparing food with a family member in the home-like kitchens. Residents seem to be “lost less often”. This is probably because of the diminished size of the lodges and the use of pony<sup>2</sup> walls, both of which increase the visibility of living and dining rooms. Volunteers also noticed that other visitors are spending more time with residents now that the communal spaces are so much more attractive and accessible.

Dementia Care Program front-line staff members' reactions were very similar to those of family members, friends and volunteers. They appreciate that their walking distances are now diminished and they enjoy the attractive, home-like, quieter environment. Staff members rate residents' quality of life higher than before renovations and take joy in noticing that residents look calm. One said eloquently, “Seeing an elderly lady curled up on the sofa, watching the fire, made me feel we'd all done a good job.”

Members of the clinical support and interdisciplinary leadership teams commented that the atmosphere in the renovated lodges is one of “Peace. I come here and it's peace.” They say, “A calm rhythm of everyday life has been actualized.” Residents look relaxed and are now doing what they would do at home, like “sitting and chatting with a staff member on the couch”. Now that there is a recognizable and comfortable living room, residents are more likely to take a break from walking. With the nursing station gone, there is no more agitated congregating at the nursing station: “They arrive ... sit, and settle”. Another impact of the renovated environment is that staff members are communicating and interacting more spontaneously with each other, and are using more domestic language, such as “the kitchen” rather than “the servery”.

Those directly involved in planning and implementing the renovations, such as the Director of Environmental Services, take great satisfaction from seeing a vision become a reality as a result of renovations: “We took the commercial character out of the building and made a home environment.” The Clinical Nurse Specialist assessed the built environment “before” and “after” using a checklist adapted from criteria developed by John Zeisel<sup>3</sup>. It includes 65 indicators in eight categories: exit control, walking pathways, individual space, common space, outdoor freedom, residential character, autonomy support, and sensory comprehension. Results indicate that the renovated built environment at TLAB now rates a 50/65 score (77%) according to this tool. Perfect scores were attained for four categories: common areas, outdoor freedom, residential character and sensory comprehension.

Interdisciplinary staff members noted that there appears to be a reduction in residents' aggressive or agitated behaviour, referred to as “altered” behaviour at TLAB. In addition, there appears to be a reduction in psychotropic drug usage. Both will be measured by means of a retrospective chart audit of a select sample of residents.



### Palm South Dining Room

This dining room has both indirect and direct light from residential style fixtures. There is also natural light from windows to the courtyard. Murals are used to provide focus without having actual shelves and plants. The furnishings are domestic in appearance, use Krypton fabric and have a natural finish. The wall colours are warm and soft.



### Palm North Kitchen

In Palm Lodge kitchens domestic appliances are used with residential cabinets and fixtures. The open concept assists residents in understanding where they are through visual cues. Some of the kitchen drawers are locked. Along the left side [not shown] is a lower counter where residents will often sit for a late meal or snack.

Various members of the geriatric care community in BC have been invited to tour the renovated lodges and to learn about all aspects of the enhanced Dementia Care Program. This is the “peer review” component of the program evaluation. The tours are on-going and results are being compiled.

Another component of evaluation will be to compare residents’ quality of life before and after major program changes using a validated tool by Logsdon et al (2002)<sup>4</sup>. This tool is a simple one-page questionnaire with 13 questions on a four-point scale. It takes approximately 15 minutes to administer. Results of this component of evaluation will be reported separately.

A plan to evaluate the new silent resident call system installed in December 2005 is being developed by the Evaluation Consultant and the Clinical Nurse Specialist.

## Discussion

It should be noted that there has been so much enrichment of the Dementia Care Program at The Lodge at Broadmead in the last two years that changes in residents’ functioning, mood, behaviour and quality of life cannot be attributed solely to changes in the built environment.

In addition to doing major renovations, TLAB has provided:

- a Clinical Nurse Specialist to lead the new Dementia Care Program;
- enriched direct care staffing;
- enriched multidisciplinary staffing;
- education and training in dementia care for all staff members;
- the same education and training for interested volunteers, family members and friends of residents;
- Dementia Care Program team building events;
- increased family involvement in care planning and opportunities for families to attend support meetings; and
- the opportunity for all staff members, family members, friends, and volunteers to express their views through the evaluation process.

What can be said is that if all the changes listed above are made to a traditional, institutional dementia care environment, there will likely be noticeable improvements in residents’ functioning, mood, behaviour and quality of life.

## References

1. There are numerous publications about the relationship between the built environment, dementia care and resident outcomes. Five are listed here in alphabetical order.
  - Alzheimer’s Australia** (2004). Dementia care and the built environment: Position Paper 3. <http://www.alzheimers.org.au/upload/Design.pdf>
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  - Tilly, J. & Reed, P.** (2005). Interventions that optimize quality dementia care. *Canadian Nursing Home*, 16 (3), 13-21.
  - Werezak, L.J. & Morgan, D.G.** (2003). Creating a therapeutic psychosocial environment in dementia care: A preliminary framework. *Journal of Gerontological Nursing*, 29 (12), 18-25.
2. A “pony wall” is a wall usually no higher than waist height. It separates one space from the next, but allows a view from one space into the next. The view provides cues, affecting behaviour. For example, the familiar features of a living room, such as a sofa and a fireplace, are cues that will attract residents to enter the living area from the hallway.
3. **Zeisal, J. et al** (2003). Environmental Correlates to Behavioural Health Outcomes in Alzheimer’s Special Care Units. *The Gerontologist*, 43 (5), 697-711.
4. **Logsdon, R.G., Gibbons, L.E., McCurry, S.M. and Teri, L.** (2002). Assessing quality of life in older adults with cognitive impairment. *Psychosomatic Medicine*, 64, 510-519.

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