A GREEN HOUSE FOR SHERIDAN
Intentional Living

Alternative Long Term Care
for the Elders of our Community

AN ANALYSIS OF FEASIBILITY
SHERIDAN SENIOR CITIZENS COUNCIL
OCTOBER 2006
A GREEN HOUSE for SHERIDAN

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A Green House for Sheridan

PHASE ONE - FINAL REPORT

Identification of Strategic Direction

RFP Requirements

The RFP contained no specific reference to any strategic plan or planning by the Senior Citizens Council but does want to know about appropriate fit for the Council to “undertake” this project. This phase will help to determine our response.

Plan of work

1. Review the history of the organization with particular interest in its record of project development and program implementation.

2. Identify the organizational structure of the business entity known as the Senior Center.

3. Identify the current statements of vision, value, mission and strategies as articulated in the documents of the organization

4. Review board and management planning processes and how these processes relate to strategic development

5. Discuss the Council’s understanding of the Green House concept and the focus of this feasibility study.

6. Discuss any “misalignment” of these statements with strategies, which might become necessary to accomplish the Green House process.

The Organization

The Senior Citizens Council is the legal name for an entity that the community and others across the state know as the Sheridan Senior Center. It operates as an IRS recognized 501 (c)(3) non-profit corporation.

History

The Center began its operation in 1972 as the “Senior Citizen’s Coordinating Council” incorporating in 1973 under the current corporate name. Operating out of loaned space from the city, the senior and elder assist programs began to develop. Federal programs provided the structure and the funding for evolution of the start-up into a robust community service organization.
What followed was a capital development process that has resulted in the physical entity we know as The Senior Center located midtown Sheridan. Innovative programs for meals, social and outreach services quickly made the physical facility a daytime home for hundreds of senior and elderly from the community. A generous Sheridan community and creative use of available grants provided the money to make this institution a exemplary model of good people doing good things for aging populations throughout the county.

This Council has a proven record of identifying unmet needs and implementing solution driven programs for the senior populations of Sheridan County.

Operating Structure

A volunteer group of citizens make up the Board of Directors. There are nine active members with three distinguished Directors Emeritus lending their experience and council. This group has a long-range view of their responsibility resulting in a dynamic and growth oriented organization.

This Board works with an Executive Director to provide policy, leadership and general oversight of the operation of the business. There are five departmental managers and five program managers working under the direction of the Executive. Approximately 70 staff members are involved in the day-to-day delivery of services to the area’s senior and elderly populations.

Vision/Mission/Purpose

1. Vision

A statement entitled VISION was presented in the 2003 Strategic Plan. This document was crafted during a significant capital fundraising period for the expansion of the Center. We believe that there are several meaningful expressions of the beliefs and values of the Board contained within this document. These beliefs and values can provide insight into the “vision” of the perfect organization by the governing body and the executive at that time. Perhaps these beliefs and values reflect the current and future vision as well.

We have taken descriptive excerpts from the narrative to illustrate.

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customer focused advocates

Customers Organization
active responsive
independent flexible
receiving services that help them respected
remain living at home comfortable

Community welcoming
feels a sense of ownership showplace

well managed

Mission

The documented mission statement, what the Council will do, is repeated in several documents and advertising pieces currently in use by the Senior Center.

The Mission is:

“To promote, develop and implement programs and services of quality that support the dignity, physical and emotional health and well being, for all Senior Citizens of the Sheridan Area.”

Clearly this is a commitment to growth, development and quality in service to seniors in Sheridan.

Purpose

Purpose, a reason for being, the why of both the Center and the Council is a continuation of the mission.

The primary purpose:

“shall be to improve the quality of life for senior citizens of all socio-economic levels in the Sheridan Area and additionally to prevent premature institutionalization.”

So we have an organization that is committed to

• growth
• creativity
• quality
• improvement of quality of life for seniors no matter their social or economic conditions
• a service area that encompasses the Sheridan (?) area.
• prevention of early admission to a nursing home
Services Provided

In seeking to perform the mission the Senior Center has developed and delivered a significant program of services and products to their customers. This well developed operation provides services to about 2,000 persons annually.

1. Meal Programs
   - mid-day congregate meals – 58,302 meals for fiscal year 2005
   - home delivered meals – 59,430 meals for fiscal year 2005
   - nutrition education and counseling

2. Transportation Services
   - door to door destination services
   - assistance and adaptive services
   - mobility enhancement providing independence

3. In-Home Services
   Preventing inappropriate or premature institutionalization, fostering self-sufficiency, preventing abuse, neglect and exploitation in the least restrictive environment that can be tolerated by the individual.
   - homemaking services
   - personal care services
   - chore services
   - case management

4. Day-Break Adult Day Care
   - Respite for care givers
   - Companionship
   - Cognitive assist
   - Health monitoring and supervision
   - Nutrition assist

5. Family Caregiver Services
   - Counseling and informational services
   - Training and education
   - Support and assistance
   - Respite
Planning

A second front in the commitment to mission is … to develop and implement programs … to engage in long range planning that results in better services for the seniors in Sheridan.

The organization’s directors and management have conducted formal planning activities as a part of their desire to remain a leading provider of community based services to the seniors and elderly in Sheridan County.

The planning was clarified in a 2006 Business Plan. In general the policy of the Board is to direct the Center’s programs to the seniors with the greatest needs.

The commitment is …..

“to serve the homebound, the frail, and at-risk senior citizens by taking the services to those who cannot reach the Center, and by making provisions for those who can come regardless of their limitations.”

Specific goals and objective were laid out for the programs and services being delivered. Notable among these strategic statements was a task of exploring the feasibility of bringing the Green House Project to Sheridan.

In April of 2006 the Board and Director met in retreat to discuss the Center’s key initiatives and goals. The outcome of the sessions was an identification of four key initiatives.

- Key Initiative # 1  Meet the needs and desires of changing generations
- Key Initiative # 2  Increase Financial Viability
- Key Initiative # 3  Excellence in Human Resources
- Key Initiative # 4  Increase Community Involvement

Every good planning process starts with a critical assessment of who and what you are. What do you have to work with and what do you have to overcome?

Strengths/Weaknesses/Opportunities/Threats (SWOT Analysis)

This exercise is the standard for conditional analysis of an organization by itself. Management and staff often conduct the process as a precursor to the implementation of the action plans created in response to the vision and mission of the organization.

We are interested in only the SWOT outcomes that may have an impact on the organization when viewed as a potential sponsor/developer of a Green House project.
We found the following analysis of interest.

In planning tasks in 2003 management and staff identified ….

- Opportunities ….. increased needs in the community
- Threats ……. fragmentation of the organization

By 2006 additional SWOT analysis produced ….

- Opportunities ….. Green House project
- Strengths ……. little competition
- Weakness …. difficulty recruiting staff, increased fragmentation of staff
- Threats …. government regulations

Strategic Goals

Out of these exercises flow strategic plans driven by goals and objectives that lead the organization in fulfilling its mission and realizing its vision. Once again we have focused in on those goals that seem to have the potential for impact on the Green House strategies we are exploring.

In the 2003 strategic plan …

- Stated Goal - create new services, adapt others based on input/changing needs of customers and the community

In 2006 retreat outcomes and business plan we found ….

- Stated Goal – meet the needs and desires of changing generations
- Stated Goal – explore self funded programs

The decision to explore the Green House Project seems a direct result of these stated goals. Therefore it is clear that the Council does in fact support the time, effort and cost to examine the Green House as an extension of their mission.
Understanding the Concept

The Green House concept as articulated by Dr. Thomas and first implemented by Steve McAilly of Mississippi Methodist Senior Services in Tupelo, Mississippi has restructured both the physical and service environment of elder care in a long term setting. Rooted in the paradigm of the Eden Alternative, this concept is, as the web site states, “a small intentional community”. It is meant to be, above all else, a household for positive elderhood.

Although the concept expands across both long term and assisted living care we are examining it from the standpoint of long term care … or in simpler language, that of a nursing home.

We have explained that the delivery of services within this model is expected to be vastly superior to the traditional medical model of what we know as a nursing home. But, it is still nursing home care and the persons who will become residents of the house are frail, sick and quite old. This will not be a retirement setting, assisted living setting or even an intermediate care facility, it will still be a nursing home.

Critique

With the above background and understanding of the Sheridan Seniors Council and its operating entity, the Senior Center we have identified some possible misalignment of strategic activities being undertaken. We do not consider these to be serious issues but do want to point them out for the benefit of the Board and Director as the Green House process unfolds.

- Service area – defined as Sheridan “area” and as Sheridan County

This identification of service area will not be this clearly defined (see Marketability - Phase Seven) for the operation of a Green House as a long-term household. The reimbursement sources are expected to follow statewide trends where, in 2004, 61.5% of all nursing home residents were receiving Medicaid support. Another 14.7% were getting payment assistance from the Medicare program. Both of these payment streams prohibit exclusionary admission based on, among other things, place of origin prior to admission.

The service area for the Green House will need to be clarified and will be different from that currently articulated for the Senior Center.

- Customers – Defined as seniors who “are active, independent, receiving services that help them remain at home …”
Obviously this definition is oriented toward the current demographic cohort of the population that is the intended service target of the home and community based programs that are so successful in helping seniors remain independent and “at home” for longer periods of time. And the current delivery system of the Center is very instrumental in helping to sustain that goal in Sheridan.

However, if the Green House does become a reality in Sheridan, and the Council is involved in its creation and operation that goal must be broadened and the very culture of the Senior Center may be in some conflict with the stated goal of the Green House, to move people from their real home to a surrogate home so that they can be cared for in a better and more efficient way than is possible with the current outreach systems operated by the Center. We can foresee a time when a home services case worker may in fact have a conflict with a Green House case worker over the best plan for a “customer”.

The Board and Director will need to confront this cultural change and successfully integrate it into their philosophy.

• Fragmentation

In at least two planning sessions, first in 2003 and again in 2006 this phrase was used to describe the operation, particularly in reference to staff. If there really is a perceived diffusion of staff activities and/or cohesiveness it will be wise for the planners to make sure that any operational development of a Green House project does not further exacerbate this problem, if there is in fact a problem. The inclusion of a direct care team dedicated to service to a large residential group of elderly into the operations will create new and interesting dynamics for the Board and Director.

• Self Funded Programs

A 2006 statement of strategic goals specifically identifies the exploration of self-funded programs as an adjunct to current operations overseen by the Council.

Funding for skilled nursing home services is primarily provided by three sources (1) private payment, (2) Medicaid and (3) Medicare. In Wyoming 62% of these payments come from Medicaid and 15% from Medicare. Only 20% is from the private pay residents.

Recent studies have shown that Medicaid reimbursement rates have not kept pace with rising operational costs in long term settings. Know as “shortfall” this condition continues and is projected, by the industry, to continue into and beyond 2006. Providers will continue to rely on Medicare and private payers to offset these losses by cost shifting practices.
Careful analysis must be made to insure that the Green House business operation will in fact self fund.

- Competition

In a 2006 planning session SWOT analysis exercise the Board identified as a strength "little competition" for what the Senior Center provides. Obviously this is true and can be seen as a strong position for the Center in their current market niche. This will change if the Green House becomes a business entity of the Council. The competition for private pay residents and especially for quality staffing is intense among current providers. True sales oriented marketing activities and direct solicitation of referral sources and even family members. Competing for staff will be a matter of working conditions and pay scales as it has always been.

The fact that the Green House program appears to be superior to the traditional nursing home will mitigate these competitive pressures to some extent.

- Regulations

In that same 2006 planning meeting the threat of government regulation was identified as a possible problem area for the operation of the current Senior Center. We just want to make the Board aware that the nursing home industry is one of the most highly regulated businesses in the United States. Compliance with rule is significant for providers operating within state and federal reimbursement. State mandated life safety and facility design regulations are in place.

If the decision is made to proceed with the development of a Green House an immediate barrier will exist with state permission to add and licensed additional beds in Sheridan. The existing provider will offer protests of infringement upon their franchise provided by state licensing for providing skilled nursing home services in Sheridan.

In conclusion the culture of the Senior Citizens Council as manifested by the Senior Center is well defined. It is directed at providing an important and worthwhile nucleus of support for some of our most at-risk populations. That culture is embraced and held in high esteem by the community. As we consider the addition of another worthwhile endeavor to the growing list of services provided by the Council we need to keep in mind that some of the processes that make the Green House work may be in some conflict with the long held cultural values of the organization.

The key to this conclusion is that the effort to align these seemingly divergent efforts is likely to be very much worth the effort.
A Green House for Sheridan

PHASE TWO – FINAL REPORT

RFP Requirements
Conduct a peer review of alternative elder long-term care residences in the region and other parts of the U.S. and provide summaries of design and funding.

Plan of work

1. Define “alternative” as it relates to this project.
2. Discuss the reason why people decide to admit to a nursing home
3. Profile the typical resident currently living in a skilled nursing home
4. Review literature (internet) for descriptions of “alternative” elder long-term care.
5. Identify any alternative programs in the region and profile them as to program, design cost information and ownership scenarios
6. Determine the process and outcome of their work with state regulatory agencies

Alternative Elder Long Term Care Residence

This emerging model for the delivery of long term nursing care is different from the traditional nursing homes that we have all become familiar with. It is both a habitat and a life style setting for elderly persons who are too frail and have too many clinical needs to remain in their home or an assisted living setting.

The traditional nursing home is driven by the regulatory/entitlement funding process with very well defined procedures for serving the residents who are living in the institution. The alternative nursing home is driven by the desire to create and nurture a human habitat that is person centered, not process centered.

Today these alternative programs are an artful blend of households, humanity, respect, personal dignity, modern technology and skilled health and wellness services. We have located and identified some excellent examples of the alternative.

The Nursing Home Decision

There is a decision point that elderly and their caregivers must make regarding living and care arrangements when the elder becomes too frail and dependent to continue to live in their preferred environment … their own home. The first reaction to the decision is “I don’t want to move into one of those old folks homes. I’ll do anything to keep from moving in. Please don’t make me move.”
The truth is that only 4% of the total population who are 65 years and older will ultimately have to make the decision to move into a skilled nursing home. They will do this for a variety of reasons, most having to do with an increasing need for levels of medical services and personal care that they cannot currently obtain in any other way.

In a report on markets and marketability we discuss, in more detail, persons who actually live in the nursing homes of this country. The reader is directed to Phase Seven of this study for an in-depth look at the demographic profile. In summary, the resident is a female in her 80’s, probably a widow with some family nearby. She has stayed in her home for as long as possible and recently became more and more dependent on others to help her perform her day-to-day activities of living. In addition she has experienced episodes of illness and suffers from chronic conditions that require medical assistance on a regular and unscheduled basis. She probably experienced a short hospital stay just prior to her admission. Chances are pretty good that her ability to pay for this help relies on federal/state entitlements like Medicaid.

Elderly persons who live in a skilled nursing home are truly unique and special in terms of their need for help. They require concentrated services that are currently provided by trained persons working in institutional settings that employ medical models based on diagnosis and treatment of the resident’s conditions.

Any alternative program that seeks to replace the traditional nursing home must also recognize that these conditions will exist for their resident populations as well.

A Little History

Historically and as late as the 1970s, nursing homes were nothing more than storage houses for the old people in our populations. Gross injustice in lack of medical and support services marked the so-called old folks homes of the era. The first cultural change began to take place as activists of that period lobbied for reform and regulation. To the credit of our governmental machinery, legislation was introduced and past that sought to correct these injustices. The bureaucracy created a regimented system of control and oversight.

The 1987 Omnibus Budget Reconciliation Act (OBRA) cast the light of the bureaucracy on quality as measured by treatment and outcomes of that treatment. As with many bureaucratic activities, OBRA was over the top, dominating the day-to-day operations of licensed skilled facilities to the point that the focus was almost entirely on compliance with the regulations. This created the culture of “mastering the survey”. Do what we must do to get a deficiency free survey was the directive for every administrator of every nursing home in the country.

The process was king, the elderly person in the process was secondary.
What’s Missing

The traditional nursing home has operated as a medical model, delivering treatments for illness and chronic conditions since the inception of the survey driven system. This process has directed the day-to-day lives of residents and staff with a regimented focus on the process. Rigid schedules and specific procedures that are in strict compliance with licensing regulations were what administrators had to work with. It wasn’t a matter of doing it the easy way, in fact being survey driven was a very demanding management style. These “diagnose and treat” providers did what they thought was best for their patients (residents).

What was overlooked was the actual care for the resident. Somehow treatment became mixed up with care and as long as you could check it off the process sheet it was ok.

Dr. William Thomas, a physician in family medicine and geriatrics said in his book *Life Worth Living* that the typical nursing home resident is “bloated with treatment and starving for care”. He defined care as “helping another to grow”. Neither treatment nor therapy alone but helping another to grow…this is significant.

In the early 90s, visionaries in the nursing home “industry” began to question the medical model and its failure to recognize the person in the process.

Change

The best solution seemed clear, find a way to keep the elderly person in their own home as long as possible. This required systems that provided support that could help with chores and activities that became more and more difficult as the person aged. Those with close family members or good neighbors were fortunate, somebody would look in on a regular basis to lend a hand with daily needs. Those without these support networks were less fortunate, they needed help if they were to avoid early admission into the nursing home.

It was becoming clear that when an elderly person was maintained in his or her home everybody won. The elderly person was happier and most often healthier. Their families were comforted and less concerned. The states and federal funding sources were pleased with the apparent lower cost of services. Community based services from a variety of organizations began to come forward. Several government initiatives were promulgated to encourage more and better support systems for keeping the elderly at home longer.

Medicare created funding and certification for skilled home health services. Community based agencies and organizations like the Senior Center found ways to deliver meals, homemaker assistance and a variety of other supportive services.
Entrepreneurial business developers created a variety of assisted living facilities that provided the first of the home like residential settings. Focusing on less institutional housing designs and selective personal service packages these facilities provided for the intermediate step between living at home and admitting to the nursing home.

All seemed to be moving in a way that was positive for a larger number of elderly persons who were faced with a move to the nursing home. But, as in all good stories, a villain raised its head. These programs by and large were expensive and proving too costly for the funding agencies. New restrictions were placed on reimbursable home health services and the assisted living models were becoming expensive and limited in their ability to provide services for the increasingly sicker populations.

When money or acuity of need was factored in, the traditional skilled nursing facility certified for Medicaid qualified persons remained, with its medical model of delivery, the only option.

Change Masters

As they did in the early 90s, planners were questioning the model, why did the nursing home need to be so “traditional”? What could be done to change the culture from one of primarily treatment over one of person-centered care?

Early movements such as the Regenerative Community, Resident-Directed Care, Individualized Care, the Wellspring Model and Eden Alternative have all helped to move eldercare from process centered to person center. Dr. Thomas and his visionaries are one of the leading change masters. Their Eden Alternative initiative for change is a recognized program embraced by more and more providers every day.

Along with these movements the federal and state governments moved to strengthen home and community based services by diverting Medicaid moneys from their institutionalized programs in support of pilot programs of alternative delivery. As an example the federal government and several states created regulatory and reimbursement solutions known as the Program for All Inclusive Care for the Elderly (PACE). PACE was aimed at keeping elderly at home by providing moneys for home delivered medical as well as personal support services. This program has found favor in a limited number of states. However, Wyoming did not opt in for this program.

Consumers are also involved in the cultural change movement. Notably the National Citizens’ Coalition for Nursing Home Reform (NCCNHR). Significant in the movement is a national volunteer group of change masters known as the Pioneer Network. This coalition of concerned citizens and providers has become a force of change that seeks to support a culture of aging that is “life-affirming, satisfying, humane and meaningful in whatever setting the elders live”.

Sheridan Senior Citizens Council   Study on Alternative Elder Long-Term Residences   Phase Two

*Wilson & Company – Sheridan, Wyoming*
The Cultural Change

The change makers have been defining more appropriate ways to deliver true life-affirming care in nursing homes. New alternative delivery systems are emerging. At the same time a word of caution has been sounded by the experts ….. we cannot forget that the frailest elderly will continue to require high levels of skilled nursing and personnel care. In fact, with the intermediate services provided by home care and assisted living programs the elderly are coming into the nursing home older and sicker. Americans are living longer and as such, there are more of us who are very old and very frail.

We all know about the approaching baby boomer bubble that will significantly increase the numbers of old people needing help. Any alternative provider program, such as Green Houses will still need to provide skilled care for a growing, frailer and more dependent population.

It should also be pointed out that state regulators have not fully endorsed these person-centered programs with new, less restrictive regulations and statutes. Regulators still want to survey for deficiency as defined under traditional nursing home regulations. A shift in public policy will be necessary before true person centered care is easily provided.

Be that as it may, several forms of cultural change have emerged. All seek to provide a less restrictive environment. They began with the programmatic process (Eden Alternative) and most recently have begun to recognize the importance of place in the paradigm. A nation wide movement is underway to create a better lifestyle environment in which to deliver nursing care. To sum up we refer the reader to excerpts from a recent documentary called Almost Home.

“Cultural change in long-term care is an on-going transformation based on person-directed values that restores control to elders and those who work closest with them. This transformation includes changing core values, choices about the organization of time and space, relationships, language, rules, objects used in every day life, rituals, contacts with nature, and resource allocation”

Almost Home - Glossary of Aging Terms

This cultural change is about implementing and nurturing non-traditional models of care in existing or newly constructed physical and programmatic environments. Physical changes in the way elderly people habitat and programmatic changes in the way they live each day. Both of these paradigms concentrate on de-emphasizing the task of care delivery and emphasizing the person, recognizing their existence as a human being, capable of helping to decide how they will go about living every day.

The Evolving Care Program
We will discuss the programmatic innovations first.

Probably the most well known effort to influence how the nursing home model operated is the movement presented by Dr. Thomas. In an early work, *The Eden Alternative: Nature, Hope & Nursing Homes* and later in *Life Worth Living – The Eden Alternative in Action*, Dr. Thomas provided a working plan for humanizing the nursing home environment.

The 10 Eden Alternative Principles gave a clear path to implementation of the alternative in care delivery plans in existing nursing homes. The transformation of a traditional nursing program into an Eden Home was lauded as a most significant step in becoming a “human habitat”. Environmental and programmatic changes are the key to the 10 principles.

We have identified the nursing homes in our region that have adopted the Eden Alternative. They are registered as Eden Homes.

**Montana**
- Aspen Meadows – Billings
- Sidney Health Care Center – Sidney
- St. John’s Lutheran Home – Billings
- Riverside Health Care Center - Missoula
- Community Nursing Home – Anaconda

**South Dakota**
- Brady Health & Rehab Center – Mitchell
- Majestic Bluffs Care Center – Yankton
- Tschetter Memorial Home – Huron
- Mother Joseph Manor – Aberdeen
- United Retirement Center – Brookings
- Yankton Care Center – Yankton

**Nebraska**
- Merrick Manor – Fremont
- David Place – David City
- Fairview Manor – Fairmont
- Hillcrest Care Center – Laurel
- Immanuel Home - Omaha
- Mt. Carmel Home – Kearney
- St. Joseph’s Villa – David City
- Tabitha Nursing Center - Lincoln
- Belle Terrace – Tecumseh
- Douglas County Health Center - Omaha
- Friendship Villa – Spaulding
- Hooper Care Center – Hooper
- Midwest Home – Stromsberg
- Nye Point – Laverne
- South Haven – Wahoo

Our research has not turned up any providers in Wyoming who have registered and implemented true and recognized Eden Alternatives into their facilities as of this date.

**The Cultural Change – Facility Environments**

The concept of place in the lives of human being is very important. Where we live is the epitome of place for most of us. When an elderly person is first approached about relocating their response is almost always … “I don’t want to leave my home”. For the older generation this comment is based on memories of years of family, friends, occasions and ownership.

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*Sheridan Senior Citizens Council Study on Alternative Elder Long-Term Residences Phase Two Wilson & Company – Sheridan, Wyoming*
The marketing messages of virtually every senior living facility, whether it is retirement or nursing home, is … “we are just like home”. The elderly are not fooled, there is nothing just like home except home. With this in mind long-term planners, developers, designers and administrators are looking at their facilities and most often finding institutional settings with homelike décor. The real leaders are saying “this is not good enough”!

Innovative designs of physical places for elderly long-term care are emerging.

Green House Projects

Once again Dr. Thomas and his colleagues are providing leadership. The Green House is architecturally as innovative as the Eden Alternative was programmatically innovative. The physical arrangement and amenities provide a more homelike setting for the delivery of skilled professional services while emphasizing the person-center care so central to the cultural change we have been discussing.

A household in every sense of the word, the Green House provides day-to-day living environments that are as close to an elderly person’s private home as is possible within the need for treatment and true care.

There are presently 21 Green House locations listed on the Green House Project web site.

Completed Projects

Projects complete or in final stages of development.

- Green Houses at Traceway - Tupelo, MS
  This project was the first pilot program for the Green House Project. Four Green Houses were completed in the summer of 2003 with eight more in final development and opening early 2006.

  This project is sponsored by United Methodist Senior Services of Mississippi

- Green Houses at Presbyterian Villages - Redford, MI
  The second Green House development in the nation is under construction with opening projected for spring 2006. Two houses are being constructed.

  This project is sponsored by Presbyterian Villages of Michigan

Even though this project is in Michigan it provides details useful for our study. They are building 2 house at this time.

7,000 square feet (each house)
- Ten private apartment units with private baths
- Handicap accessible both indoors and out
- Shared living spaces commonly located around the hearth
- Kitchen that is open around the clock
- Dining room where meals are served family style
- Library
- Living room
- Porch, patio, garden and yard
- Indoor and outdoor security systems
- Laundry onsite

This project cost $1.5 million each house - $150,000 per unit - $215.00/sq. ft.

Funding was provided by a $1.5 million capital fundraising campaign to be combined with conventional financing for the balance. Operating reserves are provided by an additional endowment funding campaign being conducted by the sponsor.

- Green Houses Pinecrest Medical Care Facility – Powers, MI.
  This is the third facility to be constructed with opening slated for fall of 2006

  This project is sponsored by a tri-county coalition of county governments in Michigan

One is located in the Nebraska.

- Tabitha Health Care – Lincoln, NE
  The fourth Green House project is projected to open in summer 2006.

  This development is the closest Green House to Sheridan.

The sponsoring developer is Tabitha Health Care Services, an affiliate of the Evangelical Lutheran Church in America. Tabitha has over 700 employees and 2,200 volunteers. They provide traditional long term care, assisted living, home health, special care units, rehabilitation, meals on wheels, and now, since May, 2006, a Green House program.

Their new Green House has:
- 5,300 square feet
- Nine private apartment units with private baths
- Handicap accessible both indoors and out
- Shared living spaces commonly located around the hearth
- Kitchen that is open around the clock
- Dining room where meals are served family style
- Library
- Living room
• Porch, patio, garden and yard
• Indoor and outdoor security systems
• Laundry onsite

This project cost $1.8 million - $200,000 per unit - $340.00/sq. ft.

Funding provided by packaging existing funds, grants, donations, conventional loans
• Endowment Fund
• Federal Home Loan Programs
• Affordable Housing Program
• Immanuel Health Systems
• City of Lincoln
• Lincoln Community Foundation

Tabitha states that they are proceeding to develop more houses with the goal of transferring their entire long-term care program into these houses.

Projects in Planning

There are three Green House projects in the active planning stages that are located in our region.

• Mennonite Friendship Manor – South Hutchinson, KS
  Anticipated opening – 2006

• Asbury Park – Newton, KS
  Construction to start – December, 2005

• Lenexa Village Care Center – Lenexa, KS
  Anticipated opening date – January, 2007

The Green House Project - Rapid Replication Initiative

The Green House Project is a joint venture of Dr. Thomas, NCB Development Corporation and Robert Wood Johnson.

Its stated goal is to rapidly create 30 new Green House development in multiple states. To assist this activity NCB and the Green House team are providing training, technical assistance and pre-development loans to qualified sponsoring organizations.
Non-Green House Projects

There are several projects underway that are working on alternatives to traditional nursing homes in their areas. They are not working within the Green House organization even though many may already be Eden Alternative programs.

We believe that the State of Kansas has provided a progressive environment for the creation of innovative new programs that deliver long-term care in ways that are in keeping with the spirit of the person center culture change sweeping through the nursing home industry today.

The Kansas Department on Aging (KDOA) developed an on-going initiative in 2002, “Promoting Excellent Alternatives in Kansas Nursing Homes” (PEAK), to support nursing homes that are developing non-traditional models of care with progressive environments seeking culture change in their facilities. The program is directed at existing nursing facilities that make significant renovations to their traditional institutional facilities, both in physical as well as programmatically.

As a way of promoting this initiative KDOH takes a dual approach, first recognizing those providers who successfully pursue change and secondly to provide education on how to institute the culture change.

The first is a recipient of a PEAK Award who is in the process of building new cottages on their senior living campus to provide an “at home” environment very similar to the Green House physical model

The Cedar Houses – McPherson, KS

This project took root in 2001 as the health care organization known as “The Cedars” made the decision to become involved in the cultural change paradigm for its long term care programs. The Board of Trustees approved the administration to, as they report, embark on the cultural change journey. This was odyssey included by an introduction into the Green House concept in 2004. (Not to be confused with the Cedars in Tupelo, MS where the first Green House demonstration project was constructed by UMSSM).

They are designing and constructing four freestanding households to be known as the Cedar Houses. Their physical structures will have:

- 14 rooms in each house
- 12 with private bathrooms
- 2 with shared bathrooms designed for couples
- Common kitchens
- Living room
- Dining room
• Study  
• Spa/beauty shop  
• Laundry/utility room  
• Supply and storage room  
• Outdoor living patio and garden

This home-style setting will provide the physical location allowing their caregivers to shift their focus from “task managed daily routines to rhythms of daily life as determined by the elders and their caregivers”.

To accomplish this task the thinking needed to shift from institutional setting to a home like setting. In keeping with the person centered model the day-to-day management of the house was shifted from a hierarchical organization to a self-managed work team.

The new houses will provide daily living and services that focus on:

• Quality of life for elders and caregivers  
• Elders who are whole and complete  
• Hands on caregivers who are part of the relationship  
• Social participation and interaction  
• Choices and independence for the elders

The delivery of specific services will encompass:

• Three caregivers per house for day and evening, one on night service  
• Breakfast and supper prepared in the house  
• Lunch prepared in the main kitchen of the traditional nursing home and brought in  
• Light housekeeping daily, deep cleaning scheduled  
• Resident and family can do personal laundry  
• Bedding and linens done in commercial laundry of traditional nursing home  
• Planned activities in each house  
• Campus wide activities add variety  
• Activities will evolve around the desires of each house  

Skilled and clinical services provide:

• One “floating” licensed nurse per house to service medical needs  
• Two “floating” CNAs per house to provide personal care  
• Restorative and rehabilitation staff will move from house to house  
• Medications and medical supplies stored in each room

A second recipient of the 2005 award has created households within their facilities that resemble the interiors of the Green House by renovating an older traditional “T” shaped nursing home facility.
Conversion of Traditional Long-Term Care Nursing Home

A primary strategy of the cultural change movement is the conversion of traditional delivery programs into patient center programs. An impressive example of this process is provided by another provider in Kansas.

Meadowlark Hills – Health Care Households  - Manhattan, KS

Owner – Manhattan Retirement Foundation

This project is a renovation of a traditional skilled nursing program that embraces the person center focus of the cultural change movement in long-term care. This organization had for years operated a very clinical, solid, old fashioned nursing home. Their survey record was an example of efficiency and excellent delivery ….. delivery of the best medical care devoted to diagnosis and treatment that a dedicated team could deliver.

As the movement for change gained momentum the planners for Meadowlark along with the department leaders at KDOH began to look at ways to change the physical and programmatic environments in the traditional homes like Meadowlark. The creation of neighborhoods evolved, renovation was started and the survey driven regimen of care delivery radically changed to a person driven living style.

Today six household neighborhoods occupy the old “T” wing structure with individual homes housing up to ten elders in each house. The design reflects the emerging model that we now know as the Green House, except contained under one roof.

Special Care – Early Stage - Alzheimer’s Disease

In our own area we found an example of a progressive senior living provider implementing a cultural change into their traditional elder care continuum. This project reflects the best of a new model for caring.

St. John’s Lutheran Home – The Cottages - Billings , MT

Two cottages have been constructed and are operational.

- 12 rooms in each home
- private bathroom in each room
- shared common areas – kitchen
- family style dining area
- living room
- den
- outdoor patio and garden living
Two caregivers per shift period provide cooking, cleaning, and helping the residents with personal care.

The next phase of this evolving person center care program will be the development of nursing care houses designed to provide the same homelike atmospheres for elderly person who need skilled nursing services. This phase is scheduled for opening in late 2006 or early 2007.

Regulatory Process

A review of the sponsors and ownership relations for the projects shows that virtually all of these developments were done by existing provider organizations, most of them very large with extensive residential and nursing home experience. The affiliations are with recognized organizations that have a proven history of providing housing and services to elderly populations. All are non-profit and all have existing nursing home beds that they are replacing with the households symbolized by the Green House or similar person-center living environments.

This profile presents two issues worth discussion.

1. These projects do not represent the addition of a significant number of new licensed bed units into the inventory of nursing home beds for their markets and state.

   Every state has budgetary concerns about the ever-increasing cost of providing nursing home services to Medicaid qualified persons living in their state. Nationally just under 50% of nursing home care is paid for by Medicaid. In Wyoming that ratio is even higher, approaching 61% of all nursing home reimbursements.

   As a control measure the states use regulatory processes to limit the numbers of beds licensed thereby limiting, in theory, the number of Medicaid recipients in the nursing home. Some states use Certificate of Need (CON) rules that require extensive work by a provider applicant to prove unmet need for additional bed units before issuing permission through licensing for more beds. Others, Wyoming included, have adopted moratorium rules that prohibit application for additional bed units in specified markets.

   If the Council decides to pursue the development of a Green House project this will involve application for new bed units that are not replacing existing licensed beds. An exception to the Wyoming moratorium rule will be required.

2. They are experienced providers of nursing home services already familiar to the regulatory agencies that decide their licensing success or denial.

   The Council nor the Center have any previous experience with direct operation of residential services or the provision of personal care within those residential settings.
This is not to say that the history and proven success of the Center’s programs do not provide proven experience … its just different experience.

Having made these two points we have been advised by the Green House project team that approaching and dealing with the regulatory agencies is a very manageable process when done correctly. Their recommendation is clearly to involve their teams who are experienced in telling the story, presenting the case and preempting the concerns and questions before they take hold in the collective decision process of the agency.

Conclusion

Even though the movement is fairly new, there are a number of developments that are completed or underway. The nearest is in Billings although it is not a Green House Project related development. The nearest Green House is located in Lincoln, Nebraska.

The common theme we find when we research these projects is their desire to do the right thing. These forward thinkers understand the traditional nursing home model does not meet the need for person center care delivery and they have determined that they will put their energy and money to work solving the problem.

Our recommendation is that representatives of the Board along with the Executive Director plan to visit Billings and Lincoln when and if the decision is made to proceed with due diligence review pending the outcome of the feasibility study.
A Green House for Sheridan

PHASE THREE - FINAL REPORT

Assessment of Need for Services

RFP Requirements
Conduct a needs assessment for alternative elder long-term care in the City of Sheridan.

Plan of work

1. Identify the most current estimate and five year projection for the general population for Sheridan County.
2. Segment and identify the population cohorts for 65+ populations in the county, most current estimates and five year projections.
3. Segment and identify the household incomes for each of these cohorts for most current estimate and for five-year projections.
4. Review statistical literature and research on the need for assistance for these cohorts.
5. Identify the most likely scenario for numbers of persons qualified by age, arrangements and need for services living in the county.

Population Source Data

The base information for this analysis was purchased from Claritas, Inc., a nationally recognized resource for population and demographic information specific to place. Their data is modeled from U.S. Census Bureau 2000 Census and inter-census estimates and projections. Specifically we used Claritas Senior Life Report and Claritas Household Trends for Sheridan County. These reports provided information from the 2000 Census, estimates for 2005 and projections for 2010.

Our statistical findings are reported here. In addition we provided narrative analysis and comment to clarify and relate the findings to the project.

General Population

<table>
<thead>
<tr>
<th>GENERAL POPULATION – SHERIDAN COUNTY</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>26,560</td>
<td>27,369</td>
<td>28,328</td>
</tr>
<tr>
<td>Change per Year</td>
<td>0.61%</td>
<td>0.70%</td>
<td></td>
</tr>
<tr>
<td>Change per Period</td>
<td>3.05%</td>
<td>3.50%</td>
<td></td>
</tr>
</tbody>
</table>

Claritas – Senior Life Report

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Sheridan Senior Citizens Council          Study of Alternative Elder Long-Term Residences          Phase Three

Wilson & Company - Sheridan, Wyoming
When compared to the state as a whole Sheridan can be seen to have grown about two and one half times faster than the state between 2000 and 2005. Between 2005 and 2010 Sheridan’s rate of increase is projected to slow somewhat to about one and one quarter times faster than the state.

<table>
<thead>
<tr>
<th>GENERAL POPULATION – STATE OF WYOMING</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>493,782</td>
<td>505,543</td>
<td>520,113</td>
</tr>
<tr>
<td>Change per Year</td>
<td>0.24%</td>
<td>0.58%</td>
<td></td>
</tr>
<tr>
<td>Change per Period</td>
<td>2.38%</td>
<td>2.88%</td>
<td></td>
</tr>
</tbody>
</table>

Older Populations

We have all heard that we are growing older as a nation. The numbers of 65+ persons living in the United States increased by 6%, more than 2 million persons, between 2000 and 2005. This increase in seniors is projected to post a 12% increase over the next five years. In 2005 seniors made up 12.5% of the national population.

Sheridan is following this aging trend.

<table>
<thead>
<tr>
<th>65+ POPULATION – SHERIDAN</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>4,121</td>
<td>4,283</td>
<td>4,822</td>
</tr>
<tr>
<td>Change per Year</td>
<td>0.80%</td>
<td>2.50%</td>
<td></td>
</tr>
<tr>
<td>Change per Period</td>
<td>3.90%</td>
<td></td>
<td>12.60%</td>
</tr>
<tr>
<td>% Total Population</td>
<td>15.5%</td>
<td>15.6%</td>
<td>17.0%</td>
</tr>
</tbody>
</table>

Sheridan’s senior population increased slower than the state and the nation between 2000 and 2005. However, projected growth over the next five years is similar to that projected for state and country as a whole. As a percentage of the total population Sheridan’s 65+ age group is a much larger proportion of the total than the state as a whole.

<table>
<thead>
<tr>
<th>65+ POPULATION – WYOMING</th>
<th>2000</th>
<th>2005</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>57,693</td>
<td>62,153</td>
<td>71,174</td>
</tr>
<tr>
<td>Change per Year</td>
<td>1.50%</td>
<td>2.90%</td>
<td></td>
</tr>
<tr>
<td>Change per Period</td>
<td>7.70%</td>
<td>14.50%</td>
<td></td>
</tr>
<tr>
<td>% Total Population</td>
<td>11.70%</td>
<td>12.30%</td>
<td>13.70%</td>
</tr>
</tbody>
</table>
The sixty five plus age group is a recognized cohort for determining the need for many senior and elder service programs. Nearly one out of six persons living in Sheridan County in 2005 is sixty five years or older. In Wyoming and the country as well that number is one out of eight persons.

If we look at the oldest age group (85+ persons) in Sheridan one out of every 46 persons is in this age group (2.2%) while the state ratio is one out of every 80 persons (1.3%). In the United States one out of every 60 persons is in the 85+ age group, 1.7% of the total population.

Sheridan County does truly have an aged population.

This phase of the study is concerned about the need for skilled nursing home services by this aged population. Is this sector being properly served appropriately?

First we should learn something about who actually lives in the traditional nursing home.

The Nursing Home Population

National data shows that approximately 4% of the sixty five plus age group resides in a licensed nursing home at any one time. As a comparison we examined Wyoming data and found that 4.1% of the 65 plus population were living in the 2,490 licensed nursing homes in the state in when the data was sampled by the federal agencies in 2004. During 2005 just over 4.2% of Sheridan’s 65 plus age group were residents of our local nursing homes.

This market penetration rate appears to be very consistent for the local area as well as for the state and the country.

Most informed eldercare providers, including the American Nurses Association, believe that care provided outside of the institutional setting is desirable and should be exhausted before admitting to the skilled facility. Admissions to skilled nursing homes are precipitated by a need for personal and clinical services, which have grown beyond the ability of the elderly person, their family care provider, home health care and other such community based services that may be available.

Markers that indicate pending admissions are well known among eldercare professionals.

Disabilities and Dependency

Instrumental Activities of Daily Living (IADLs) and Activities of daily living (ADLs) are two measures of functional ability of an elderly person. The declining ability to perform ADLs
and IADLs plays an important role in the increased dependence of the elderly person on family care givers and home/community based services. There are six identified IADL tasks that are measures of the ability of an individual to live independently. They are the ability of the person to handle independently:

1. preparing meals
2. shopping
3. managing money
4. using the telephone
5. doing housework
6. taking medication

Activities of Daily Living are a measure of functional ability in basic self care tasks. ADLs are defined as:

1. bathing
2. dressing
3. eating
4. transferring
5. toileting
6. walking

At admission to a skilled nursing home the average resident requires assistance with just over four of the identified ADLs. 75% of the nursing home population has requirements for three or more ADLs.

Persons admitting to a skilled nursing facility do so because they require help with daily activities but, also because they are experiencing failing physical and mental health. Almost all residents experience one or more adverse health conditions at the time of admission. The most prevalent are:

1. Cardiovascular diseases
2. Cognitive or mental disorders
3. Endocrine disorders

Among the cognitive impairments, incontinence and functional decline that are beyond the ability of the elder or their care giver are the most common indicators that something should be done. If the elderly person is already living at home it becomes difficult for the family and/or the in home/community based services to provide the needed level of care. If the elderly person is living in an assisted or congregate living facility these same problems may cause the elder to increase in their need for services beyond the ability of the facility to provide.
Persons not in a Nursing Home

Not all persons with these indicators are living in nursing homes.

About 18% of the non-institutionalized senior populations require some ADL assistance with their everyday lives. These persons can function in their home or assisted living environment as long as some degree of personal assistance is available to them. However, nearly 4% of the non-institutionalized 65 plus persons are severely impaired and require assistance with three or more ADL activities. When we consider the age of the person we find that the need for assistance increases as the person grows older. This is very true for those in nursing homes but it also is shown to be the case for the non-institutionalized elderly as well.

Assisted Living Federation of America (ALFA) provided the following profile from their 1999 report on assisted living qualified persons.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Needing Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 to 69</td>
<td>9.1%</td>
</tr>
<tr>
<td>70 to 74</td>
<td>11.6%</td>
</tr>
<tr>
<td>75 to 84</td>
<td>25.3%</td>
</tr>
<tr>
<td>85 plus</td>
<td>50.1%</td>
</tr>
</tbody>
</table>

A similar study by National Investment council for Senior Living (NIC) provided estimates that closely support the ALFA percentages.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Needing Assistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 to 74</td>
<td>8.4%</td>
</tr>
<tr>
<td>75 to 84</td>
<td>21.4%</td>
</tr>
<tr>
<td>85 plus</td>
<td>52.7%</td>
</tr>
</tbody>
</table>

If we apply the ALFA estimates to the Sheridan 65 plus age group for 2005:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Persons</th>
<th>Needing Assistance</th>
<th>Person w/ Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 to 69</td>
<td>1,136</td>
<td>9.1%</td>
<td>103</td>
</tr>
<tr>
<td>70 to 74</td>
<td>988</td>
<td>11.6%</td>
<td>115</td>
</tr>
<tr>
<td>75 to 79</td>
<td>900</td>
<td>20.3%</td>
<td>183</td>
</tr>
<tr>
<td>80 to 84</td>
<td>668</td>
<td>31.4%</td>
<td>210</td>
</tr>
<tr>
<td>85 plus</td>
<td>591</td>
<td>50.1%</td>
<td>296</td>
</tr>
<tr>
<td>Total</td>
<td>4,283</td>
<td>21.2%</td>
<td>907 persons</td>
</tr>
</tbody>
</table>

The above persons have a need for assistance with one or more ADLS. Many are receiving home/community based assistance while others are living in supported living arrangements. The community based and assisted living delivery models provide what is known as “aging in place” environments. The very act of aging will insure that many of
these persons will develop ever increasing acuities and become more and more dependent. They will eventually be faced with the need for a higher level of service than these delivery systems can provide.

As they continue to age they become more frail, experience more episodic and chronic illness and increasing dependence, some will die. The others will continue to hang on, get by, anything but move into the nursing home.

In a June 2002 report to Congress the Commission on Affordable Housing and Health Facility Needs for Seniors reported that 3.7% of the 65 plus populations were severely impaired with a need for assistance with three or more ADLs. A 1999 report on Medicare beneficiaries, Medicare Current Beneficiary Survey (MCBS) set this percentage at 9% of the non-institutionalized beneficiaries.

Congressional report - applied to Sheridan County
3.7% x 4,283 65 plus persons = 159 at risk non-institutionalized persons

MCBS Survey report - applied to Sheridan County
9.0% x 4,283 65 plus persons = 385 at risk non-institutionalized persons

For purposes of this analysis we will assume that there are between 200 to 400 persons 65 plus years old and non-institutionalized living in Sheridan County who have the ADL profile of persons who are already living in nursing homes. These are 200 to 400 elderly persons who should probably be cared for in a skilled setting but who are not. Why?

Does Sheridan County have the nursing home capacity to provide for these at risk persons who are qualified but still living in the community?

Sheridan Nursing Home Capacity

In June of 2005 ….. 2,490 persons in Wyoming were residents in licensed nursing homes. This was 4.01% of the estimated 65+ population at that time. By applying the 4% figure to the 65 plus population for Sheridan County in 2005 we would expect that 171 persons would be living in the licensed nursing homes in the county. According to published survey data for the two licensed nursing homes in Sheridan County there were actually 173 persons in these homes at the time of survey.

Licensed Facilities – Sheridan County

<table>
<thead>
<tr>
<th>Facility</th>
<th>Licensed</th>
<th>Residents</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheridan Manor</td>
<td>128 beds</td>
<td>100</td>
<td>9/05</td>
</tr>
<tr>
<td>Westview Health Care Center</td>
<td>102 beds</td>
<td>73</td>
<td>5/05</td>
</tr>
<tr>
<td>Total – Sheridan County</td>
<td>230 beds</td>
<td>173</td>
<td></td>
</tr>
</tbody>
</table>

Occupancy = 173 residents/230 licensed beds = 75.2%
Comparison – State & National

<table>
<thead>
<tr>
<th>Location</th>
<th>Occupancy Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheridan County</td>
<td>75.2%</td>
</tr>
<tr>
<td>State of Wyoming</td>
<td>81.4%</td>
</tr>
<tr>
<td>United States</td>
<td>85.6%</td>
</tr>
</tbody>
</table>

When we examined this information in comparison to state and national occupancies it becomes clear that the Sheridan facilities have too many licensed beds for the utilization patterns of the county. Based on a comparison with state for occupancy percentages, there are at least 14 too many beds licensed and when we compare to the national occupancy there are 24 too many beds.

Apparently Sheridan does have the capacity, albeit in the form of the traditional nursing home, the medical model that Dr. Thomas has said has “more in common with prisons, reform schools, military boot camps and cloistered convents ….” Perhaps the situation is that the traditional nursing homes have too many beds simply because they are the wrong kind of beds.

Conclusion

There are a significant number of at-risk elderly persons living in Sheridan County who will never move into the available nursing home beds, no matter what. This does not mean that they do not need the support and skilled care that can be provided in a proper setting, it simply means that the setting must change.

The person centered household that is provided by an alternative program may be the answer.

We believe there are 200 to 400 elderly persons living in Sheridan County who would benefit from admission to a skilled nursing facility if they could be convinced that the alternative was not the same as the traditional. It is also probable that, given same cost factors, the existing nursing home populations would look carefully at relocating into the Green House if it were made available. When these numbers are added the total potential for the new facility would approach 400 to 600 persons with needs that could be satisfied by admission to that facility.
A Green House for Sheridan

PHASE FOUR – FINAL REPORT

Research of Regulations and Barriers

Task: Determine if federal, state, local laws and regulations will support the Green House Project concepts and whether these regulatory issues will prove to be barriers to this project. Following this research make recommendations for strategic solutions to any problematic issues.

Plan of Work

1. Identify the applicable codes, regulations, and ordinances, statutes that will apply to a Green House development in Sheridan.
2. Identify strengths and weaknesses of these existing codes, regulations, ordinances, and statutes as they pertain to long-term care in Wyoming.
3. Identify changes to state processes and requirements or suggest strategies to help enable the development of alternative long-term care residences, specifically the Green House Project.

The work conducted in this phase seeks to address the three stated objectives for the task as described by the Senior Citizens Council in its request. In conducting the work we identified the relevant issues within federal, state and local regulatory statutes and code.

Applicable Regulations and Codes

The issues considered are those that address the delivery of services within the context of the long-term care system in the State of Wyoming. The authority for the promulgation of rule within these statutes and codes for long term care resides with the Wyoming Department of Health.

Within this department the specific regulating agency is the Aging Division.

The Aging Division is authorized to adopt rules and regulations governing programs and services for the elderly under Wyoming Statute 9-2-1208(c)(iv) and Wyoming Administrative Procedures Act at Wyoming Statute 16-3-101.

Permission to establish a health care (long term care) facility is granted under Title 35: Chapter 2 – Article 9 - Licensing and Operations 35-2-901 through 35-2-912.
Additional regulation is dictated through various state agencies.

- Wyoming Department of Health – Office of Health Facilities – Licensing Division
- Wyoming Department of Health – Epidemiology Unit
- Wyoming Department of Environmental Quality
- Wyoming Department of Health – Health Facilities Act
- Wyoming Nurse Practices Act
- Wyoming Nursing Board of Nursing Home Administrators
- Wyoming Board of Pharmacy
- Wyoming Long Term Ombudsman – Complaint Investigations
- Wyoming State Survey Agency – Office of Health Quality
- Wyoming Board of Pharmacy
- Wyoming Epidemiology Unit – Department of Health
- Wyoming Department of Environmental Quality
- Wyoming Construction Rules for Nursing Care Facilities

Wyoming regulation is in part reliant on reference and association with federal regulations and to national codes adopted for the purpose of standardizing and controlling the various aspects of designing, constructing and operating a nursing facility. These applicable codes are as follows.

Federal regulatory agencies and national codes that have authority for nursing facilities:

- U.S. Department of Health and Human Services - Centers for Medicare and Medicaid
- U.S. Public Health Service – Food and Drug Administration
- National Institute of Health – Centers for Disease Control
- International Plumbing Code 2003 Edition
- National Electric Code
- Minimum Requirements of Construction & Equipment for Hospitals & Medical Facilities

Within the city limits of Sheridan there are rules that apply, particularly to the zoning of land for specified use and, by reference to the state, federal and national regulations and codes.

City of Sheridan zoning and parking issues specific to a nursing home

- Zoning ordinances - allowable use districts for a home for the aged
- Off street parking requirements for nursing home residents and staff
Green House Model

The cultural model discussed in this report is presented in the writings of Dr. William Thomas and is presented by the Green House Project staff in their introductory workshops that are held around the country. Specifically we participated in an informational workshop held in San Antonio in the fall of 2005.

Objective

Our search objective was to identify areas where a current regulation might conflict with the Green House Project both as a physical structure and as a delivery program for long term care. These potential conflicts will require dialog and negotiation with the regulatory authority at the Wyoming Department of Health.

Based upon our knowledge of the general concepts of the Green House physical and programmatic design we anticipate possible conflict between the Green House concepts and the Wyoming Department of Health regulatory interpretations. In Phase Five of this study we interviewed professional and provider organizations who had, as a matter of designing, constructing and now operating Green Houses faced and successfully negotiated regulatory conflict issues. The Phase Five report provides narrative overview of our findings.

Strategy

Given that the development teams associated with the Green House Project have successfully discussed and resolved these potential road blocks with the regulatory agencies within the states where Green Houses are operating or are under development we believe that they can be called upon to assist the Council in this work resulting in successful outcomes with the Wyoming regulators.

Our recommendation is that once a decision is made to proceed with the project an application to The Green House Project be made by the developing entity, whether it be the Sheridan Senior Citizens Council, another Sheridan based sponsor or a combined effort between the council and another organization. This application will create the liaison between the Council and The Green House Project team that will allow them to advise and direct the discussions between the regulatory agencies and the developers.
Conflict Issues – Addressable by a joint effort with Green House team

Possible conflict of Green House program/design with Wyoming Department of Health regulations exists in the following areas.

**Programmatic - Management and Staffing Issues**

The first potential conflict may emerge as the Green House concept of Self Managed Work Teams is presented.

In order to illustrate we provide a graphic depiction of a Green House operational structure in comparison with that of a traditional nursing home operation. The regulations currently used in Wyoming are based on the traditional model.

Green House Operational Chart

Day Shift: 2 Shahbazim per house, 1 nurse per 2 to 3 houses
Night Shift: 1 Shahbaz per house, 1 nurse per 3 houses
This is an illustration of the self-managed work team that keeps the Green House on task. Each member within this work team plays an important role in the day-to-day household activities that help support the elder. The staff and non-staff positions illustrated above are described within a Green House operation by their primary contributions to the work team.

**Guide**

The “administrator” counterpart in the Green House model. He/she is **working off-premises** and acts as the guardian of the culture, advocating for the habits, practices and beliefs of the Green House.

**Sage**

An elder volunteer from outside the Green House living in the community, an advocate of the ideals of the culture and skilled at helping small groups of people work out conflict and make decisions.

**Shahbaz**

The “CNA” counterpart in the Green House, a self directed universal work team that coordinates (manages) the affairs of the house and are dedicated to elders and their daily pursuit of the most positive elderhood possible. As a group these direct care providers are known as the Shahbazim.

**Director of Nursing**

Clinical supervisor of the skilled nursing services that are provided to the elders when such services are needed.

**Clinical Support Team**

A group of professional skills that provide an array of therapies to the elder that may be required to treat chronic and episodic situations related to medical and health care issues that go beyond the personal and emotional issues of daily living.
Operations

The business function of the overall operation of several Green Houses that make up the neighborhood. Within each house there will be a self-directed assumption of primary roles by the work team as follows:

Shabhazim

Within this team are all of the “management” tasks that must be accomplished to provide for the household on a daily basis. Each coordinator (Shahbaz) has specific duties that are collaboratively organized to insure that a smooth flow of work is accomplished without the regimentation that is pervasive under the traditional nursing facility operating model. Working with the Guide each coordinator conducts their tasks within the natural rhythm of the intentional household that is the core of the Green House.

Each group of Green Houses employs a support team of professionals known as the CLINICAL SUPPORT TEAM. This team is housed off-premises along with the Guide. Their primary role is to provide needed skilled services to the elders under the direct care of the Shahbazim working in each house.

Clinical Support Team
In comparison the traditional model that conforms with the current regulations …..

This traditional organization has been the operating model for skilled nursing facilities for many years and the regulatory agencies are familiar with its structure and treatment focused delivery systems. A top down culture exists, starting at the owner/manager home office and working downward to the resident as the recipient of the “care” provided by the regimented system we all know as a nursing home.

In this model the Administrator is the full charge representative of the owner/manager organization identified in the state rules as the “sponsoring organization”. In the for profit world this sponsor is the corporate organization that owns the facility, usually along with a number of other similar facilities generically called a nursing home chain. In the non-profit world the sponsor is most often a religious or faith based organization that also operates multiple facilities under the umbrella of the central organization. Within the confines of the sponsor the Administrators role is to implement policy and procedure as dictated by the sponsoring organization.

The traditional organizational structure conforms exactly to the current Wyoming statutes.
To quote from the statute …

WYOMING DEPARTMENT OF HEALTH – AGING DIVISION – CHAPTER 11 - RULES AND REGULATIONS FOR PROGRAM ADMINISTRATION OF NURSING CARE FACILITIES

Section 1. Authority – promulgated by the Department of Health pursuant to the Health Facilities Act at W.S. 9-2-1204 and the Wyoming Administrative Procedures Act at W.S. 16-3-101

Section 2. These rules have been adopted for the day-to-day operation of Nursing Care Facilities, which is defined as an institution that is a skilled nursing facility (SNF) or a nursing facility (NF) that is currently licensed and meets the requirements of these rules and regulations.

Section 5. Organization and Administration

(a) The Nursing Care Facility shall have a governing body that has the legal authority and responsibility to operate the facility.

(1) This governing body shall appoint a full time, on-premise administrator who is qualified by education, training and experience as established by the Wyoming Board of Nursing Home Administrators.

(2) The Administrator shall enforce the rules and regulations relative to the level of health care and safety of the residents and for the protection of their personal and property rights.

(b) The Nursing Care Facility shall have written policies to govern nursing care and related medical or other services provided.

This rule creates an area of conflict between the Green House developer and the Department of Health requiring assistance from Green House Project for resolution.

The Green House model has titled the administrator position as the Guide and requires that the Guide work off-premise from the house itself.

The Guide acts as the guardian of the culture of the Green House (not the enforcer of rules and regulations, instead acting as teacher and preacher), advocating for the habits, practices and beliefs of the Green House.

Under the rule the Department dictates that the sponsoring organization has full and complete responsibility for the “policies and procedures’ effecting the daily lives of the elder.

The Green House makes it possible that the elders, acting as a house council, make some decisions regarding menus, activities and household routines.
Continuing with Chapter 11 ….

Section 6. Physical Environment

(a) The building(s) of the Nursing Care Facility shall be constructed, arranged and maintained to ensure the health and welfare of all residents.

(b) Dietary Facilities

   (i) Non-dietary personnel shall be excluded from the dietary area and the traffic patterns shall be strictly controlled.

This rule creates an area of conflict between the Green House developer and the Department of Health requiring assistance from Green House Project for resolution.

The Green House building is designed and arranged as a social habilitative model that supports an intentional community of elders that prioritizes an elder’s “quality of life” over the regulated treatment based medical model prescribed under the above rules.

Dietary issues are controlled by strict rules, prescribed intake, strict schedule, frequency, efficiency of preparation and delivery. In particular, access to the “kitchen” is denied to any non-staff person.

The Green House on the other hand makes the food experience a part of the daily household and the elders are invited to participate with full and unlimited access to the act of meal preparations, menu development, setting, serving, clearing, all as an essential enjoyment element on life.

Once again in Chapter 11 we find…

Section 9. Nursing Services

(a) The facility shall designate a Registered Nurse to be the full-time director of nursing services, and he/she shall have experience in areas such as nursing services administration, ……..and shall be responsible for:

   (i) Developing policies for the nursing department …

   (ii) Recommending the number and levels of nursing personnel (nursing personnel shall include Registered Nurses, Licensed Practical Nurses and CNAs)

   (iii) Staffing, assigning supervising, evaluating all levels of nursing services

   (vi) Insuring that daily nursing rounds are conducted

(g) Storage of drugs …. shall be in locked rooms, cabinets or carts …
This rule creates an area of conflict between the Green House developer and the Department of Health requiring assistance from Green House Project for resolution.

The rule clearly makes the Registered Nurse, acting as the Director of Nursing Services the primary manager of the delivery of services to the resident. The resulting organization is a steep (see Traditional Skilled Nursing Home Organization) bureaucracy driven by a skilled professional trained in medical treatment protocols with control over all direct care activity.

The Green House intends to foster a flattened bureaucracy insisting on empowerment of the direct care staff (Shahbazim) for the hour-by-hour provision of personal and household services that are essential to the quality of life for the elder. The nurses are the outside force (Clinical Support Team) that provides the essential medical care and treatments for each elder as prescribed by the applicable medical disciplines.

Drugs and elder supplies are stored in each elder’s room.

We further find in Section 9 reference to the “nursing station”. It is ruled that there must be one such station for every 20 residents in a nursing facility. Each station must be staffed with a Registered Nurse or licensed Practical Nurse every day. Once again there is a direct conflict with the stated rule and the Green House concept.

This rule creates an area of conflict between the Green House developer and the Department of Health requiring assistance from Green House Project for resolution.

The rule and regulation calls for a nurse’s station for every 20 residents.

The Green House absolutely eliminates the “nursing station” as a matter of de-institutionalizing the house. All elder nursing services are administered by a “visiting nurse” (Clinical Support Team) who acts as a home health provider for each elder.

Medications and supplies are stored in elder’s room. Records, charts and other such institutional reminders are kept out of view.
Section 11. Dietetic Services

(a) Overall supervisory responsibility for the dietetic services for the facility shall be assigned to a full-time qualified dietetic supervisor.

(ix) The dietetic supervisor shall have the responsibility for menu planning ordering and recommending purchase of supplies ....

This rule creates an area of conflict between the Green House developer and the Department of Health requiring assistance from Green House Project for resolution.

The rule establishes the decisions for food and meals with a professional person whose focus is on intake, calories, cost and regulation. The Green House makes eating an essential source of enjoyment in life as well as a simple nutritional decision. In the Green House the table and kitchen that serves the table are centers for pleasure, communion and household reunion. The Shahbaz assigned as the Food Coordinator is the organizer of the kitchen, visiting with the elders about their preferences, shopping for the fresh food and helping to prepare and serve meals that bring some joy to each day. They also coordinate with the Clinical Support Team Dietary advisor regarding the elder’s individual needs and activity related to nourishment and diet.

Finally in Chapter 11 we find specific language referring to the requirement to license the Green House as a nursing facility. Chapter 11 says ....

Section 28. Licensure shall be in accordance with current Rules and Regulations for Licensure of Nursing Care Facilities adopted by the Department of Health

WYOMING DEPARTMENT OF HEALTH - HEALTH FACILITIES ACT TITLE 35 – CHAPTER 2 Article 9 – LICENSING AND OPERATION

Quoting from the statute ....

35-2-902 No person shall establish any health care facility in this state without a valid license issued pursuant to this act. (nursing care facility defined as a facility providing assisted living care, nursing care, rehabilitative and other related services)

35-2-906 Construction and expansion of facilities: exemption.
(b) Nursing care facility beds shall not be expanded or constructed if the nursing care bed occupancy, excluding veteran administration beds, in the construction area is **eighty five percent (85%) or less** thereafter based upon the annual occupancy report prepared by the division.

(“Construction Area” means a thirty (30) mile radius from the center of the closest community in Wyoming to a nursing care facility or hospital with swing beds as determined by utilizing the state map prepared by the Wyoming Department of Transportation)

The Department of Health has imposed a moratorium on its Certificate of Need process for the licensing of new nursing facility bed units with the above named exception.

Sheridan County currently has two licensed nursing facilities that provide skilled services. Their occupancies are below the minimum requirement for consideration of new licensed bed units within the “Construction Area” for the City of Sheridan.

Gaining relief from this rule will require some form of Departmental waiver or special exception from the rule as stated in 35-2-906 above

The Green House Project team cannot resolve this conflict.

It is a local problem from the standpoint of justifying a need for additional licensed beds in the Sheridan County market area. If the request was for additional traditional nursing home beds the statute 35-2-905 and 906 are very clear and have been recently debated in the legislature. It likely defendable should the existing providers choose to rely on strict interpretation by the regulatory agency.

However, an application by the Council for additional bed units in Sheridan County would not be “traditional”, instead such an application would be for a truly unique use of the beds.
Summary - Resolvable Issues

These are the issues within the regulatory regimen that will require negotiated resolution between the Department of Health and the nursing facility license applicant (Council/Other). These are believed, based on discussions with Green House Project personnel and with existing Green House sponsors, architects and designers to be resolvable.

<table>
<thead>
<tr>
<th>ISSUE</th>
<th>GREEN HOUSE</th>
<th>STATUTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conflict Administrative staffing</td>
<td>off premises location</td>
<td>on-premises location</td>
</tr>
<tr>
<td>Conflict Day to day Activities</td>
<td>elder council decisions</td>
<td>administrative control</td>
</tr>
<tr>
<td>Conflict Food prep/kitchen areas</td>
<td>fully accessible</td>
<td>restricted access</td>
</tr>
<tr>
<td>Conflict Resident direct care</td>
<td>Shahbazim</td>
<td>Director of Nursing</td>
</tr>
<tr>
<td>Conflict Drug storage</td>
<td>elder’s room</td>
<td>central storage/cart</td>
</tr>
<tr>
<td>Conflict Nurse station</td>
<td>none allowed</td>
<td>required</td>
</tr>
<tr>
<td>Conflict Dietary</td>
<td>Shahbaz/elder</td>
<td>dietary director</td>
</tr>
</tbody>
</table>

These are the major issues. There will be additional issues within the physical design such as laundry, commercial kitchen, medical gases, space designations, etc. All are expected to negotiable with solutions that are reasonable.

Summary - Moratorium on Additional Beds Units

We believe that the resolution for this issue lies with the presentation of a case for support for a pilot model Green House development in Sheridan that would bring the most sweeping change to long-term care in twenty-five years to Wyoming.

First, this case can be presented based on the “need” for non-traditional long-term nursing beds in Sheridan.

We have addressed the supply of bed units and a possible need for additional units in Phase Three of this study. In that work we identified the possibility that between 14 and 24 excess licensed bed units were held within the licensure of the two Sheridan nursing
facilities. We also made a case for the probability that these bed units would never be occupied within their existing facilities simply because qualified person living in Sheridan do not want to move into a traditional nursing home. Our study further found that there were between 200 and 400 persons living in Sheridan County who were qualified by need and would likely benefit from admission to a nursing facility if only they would agree to do so. It is probable that if the unused licensed beds units now residing in the other facilities were transferred by the Department of Health to a new Green House in Sheridan these qualified persons would quickly fill them.

Secondly the application strategy can be based on influential support … the combined voice of the elders of the communities of Sheridan County heard through the leadership of the Council, their advocates and supportive elected officials saying “do this because it’s the right thing”.

The time is now and the Sheridan Senior Citizens Council can lead this state into the new era of long-term care for our elders.
A Green House for Sheridan

PHASE FIVE – FINAL REPORT

Best Configuration

RFP Requirements

Determine requirements for building square footage, appropriate space utilization, design concepts, site requirements, estimated costing, applicable zoning, codes and regulations related to the development of a Green House project that will meet the needs identified in this study.

Plan of work

1. Identification of the recommended number of bed units for the project
2. Discuss the applicable regulations, city zoning, code issues and resolution experiences
3. Identify optimal space design for accommodating these bed units within the Green House model
4. Provide estimates for the cost of building these bed units in accordance with this space design.
5. Provide optimum site layout to accommodate the building(s) for the project
6. Provide overview of available real estate within the city that can accommodate this development
7. Discuss the services available from the McCarty Company architects
8. Provide transcript of communications with existing Green House operators, designers and architects
9. Provide discussion of technology integrated into the Green House design

Planning Partnership

This phase of the feasibility study has been developed to explore the issues surrounding the physical development of a “Green House” long-term care facility in Sheridan. We engaged TSP, Inc. to research the Green House projects that have been constructed and to analyze how these facilities differ from that of a traditional long-term care facility. This research includes preliminary code analysis, development of a Space Program and Preliminary Floor Plan/ Site Plan and discussions with administrators and architects involved with successful Green House projects around the country.

In addition TSP explored the technology embedded in a Green House design. This “smart
house” technology provides state of the art communication; monitoring and elder care capabilities that make the Green Houses significantly different from the traditional nursing facility.

The original Green Houses were constructed in Tupelo, MS. The McCarty Company, located in Tupelo, designed these facilities. We requested that TSP communicate with the McCarty Company and have included information obtained from these discussions in this study. McCarty may have value as a potential consultant to the designing architect with this project. They can assist us in a variety of ways, including concept design review and assistance in explaining the Green House project to local and state review agencies.

Our discussions with architects and administrators have yielded valuable information about what a Green House is all about and what things to be wary of in pursuing agency approvals and certifications. These houses are not constructed like traditional long-term care facilities! It is important to remember this as we have discussions with those familiar with applying rules and regulations to standard skilled nursing homes.

Issues such as

- Food Preparation
- Laundry
- Staff Operations
- Technology

are handled differently. This different mode of operation has an impact on the types of spaces that are normally considered part of a long-term care facility. In general, it eliminates the need for certain spaces such as nursing support areas, clean/soiled utility rooms and some level of commercial equipment in the food prep area.

It is the intent of this phase to provide a more detailed understanding about what a Green House is and how it can be adapted to work for the needs of elderly in Sheridan. The philosophy behind the Green House Project is very powerful and yet very fundamental in nature. Constructing a successful Green House project in our community would be a great step forward in providing a positive environment where our elderly can learn, grow and thrive.

**Recommended Bed Units - The Critical Mass of a Project**
Interviews with the Green House Project team and with the designers and architects who have helped develop the existing projects around the county clearly indicate that no Green House can stand alone as a single house. The cost, staffing, clinical support team and general administration requires a minimum critical mass of occupied bed units to provide financial feasibility.

An entirely new development by a sponsor not already acting as a long-term care provider would need to create a complete company of staff, clinical support and administration.

**A minimum of forty beds arranged in four houses** is the currently quoted minimum arrangement. This number will be the subject of further investigation in our analysis of financial feasibility in Phase Six of this study.

Our findings during the interviews with the experienced developers are that existing providers normally undertake the projects, usually as an extension of their existing long-term care programs. They indicated that the Green House development was to be “staged” by building one house at a time and using it to replace existing traditional long term nursing bed units. In this way they would be able to transition from traditional to Green House without needing to develop an entire new operation for the Green House.

The analysis given in this phase, with the exception of the site layout is provided for a single house, but it is expected that a project of forty beds in four houses would be undertaken.

The analysis of need provided in Phase Three indicated 200 to 400 qualified persons living in Sheridan County that could use the services of a skilled nursing facility if they would consent to admission. We also pointed out that between 14 and 24 licensed beds currently exist in the county that are in excess of the number that are or likely to be occupied and that these excess licensed bed units could be utilized in a Green House project without detriment to the existing providers.

**Code Matrix**

A search of applicable codes within the City of Sheridan was conducted for us by TSP. The
findings were that the following apply (shaded blocks denote applicability to a Green House project)

It is expected that construction of a project in Sheridan would comply with these regulations.

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</thead>
<tbody>
<tr>
<td>SITE ISSUES</td>
<td></td>
<td></td>
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<tr>
<td>ARCHITECTURAL DESIGN</td>
<td></td>
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<tr>
<td>CONSTRUCTION</td>
<td></td>
<td></td>
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<tr>
<td>FOOD PREPARATION</td>
<td></td>
<td></td>
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<tr>
<td>LAUNDRY</td>
<td></td>
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<td></td>
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<tr>
<td>CERTIFICATION</td>
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Zoning & Code Analysis

A. City of Sheridan Zoning Ordinance:

1. Allowable use districts for a Home for the Aged are: R-1, R-2, R-3, B-1, B-2 & M-1
2. Off-Street Parking Requirements are:
   “One space per three (3) beds plus one (1) additional space per employee”

B. State of Wyoming – Applicable Codes & Standards:

4. Wyoming Water Quality Rules & Regulations
5. Minimum Standards Governing Food Service Establishments
6. Minimum Requirements of Construction & Equipment for Hospitals and Medical Facilities, HEW Publications No. (HRA) 74-4000
8. Wyoming Rules & Regulations for Nursing Care Facilities
9. Wyoming Construction Rules for Nursing Care Facilities

Program of Required Spaces

(Items in red represent spaces not typically found in a Green House)

1. Common Areas
   a. Public Restrooms
   b. Waiting Room
   c. Records & Accounting Area
   d. Drinking Fountains
   e. Public Telephone
   f. Staff Dining/ Training Room
   g. Central Storage Space (10 SF per bed)
   h. Patient Dining & Recreation Space (Not less than 30 SF per bed with storage space for recreational equipment)
2. Nursing Unit Service Areas & Facilities

   a. Nurses Station (Serving a maximum of 60 beds)
   b. Nurses Training/ Conference Room w/ lockers & storage space
   c. Nurses Lounge w/ Toilet & Locker space
   d. Nourishment Station
   e. Drug Distribution Station
   f. Clean Workroom
   g. Soiled Workroom
   h. Clean Linen Storage Area
   i. Equipment Storage Room
   j. Patient Bathing Facilities (1 tub/shower per 12 beds)
   k. Wheelchair & Stretcher Alcoves
   l. Storage Facilities for Medical Gas Cylinders
   m. Hand-washing Facilities at Nursing Station
   n. Janitors Closet w/ Service Sink & Storage

3. Patient Rooms

   a. Floor Space per Bed = Minimum of 100 SF of floor area per bed in single-bed rooms
   b. Maximum number of patients per room shall be limited to 4
   c. Minimum 10 SF per Closet/ Drawer Space

B. Wyoming Department of Health - Aging Division

   1. Rules pertaining to Animals, Birds and other Pets

      a. The pet must have had an examination prior to entering the Nursing Care Facility and annually thereafter
      b. The pet’s vaccinations are current
      c. The pet is not allowed in the resident’s dining room during dining hours or in any food preparation area
      d. Someone must be designated as the primary caretaker of the pet, other than a resident of the facility
      e. Aquariums are excluded from the above requirements
Code Barriers and Resolutions

As predicted by our work in Phase Four, potential conflict over various existing rules at the state health department levels were encountered by the designers of the Green Houses and other alternative long term care facilities we examined.

Excerpts taken from the communications logs of TSP provide a brief overview of these issues and will help will clarify the process and ultimate successes with the supposed “barriers”.

Cedars Project – McPherson, Kansas – Gossen-Livingston Architects

There were some concessions made on behalf of the governing code organizations.

There are no medical gases built into the infrastructure
  • they utilize portable oxygen units

The code reviewing agencies looked most closely at the mode of operation.
  • how laundry was going to be handled
  • how food was going to be prepared and served
  • developing a close relationship with the code review agencies is critical.

The critical mass of the development is crucial
  • regulators would look hard at just one house.
  • minimum of four (4) houses required to support these types of facilities

Lighting was an issue …
  • typical residential light fixtures do not provide the foot-candles that are required by the codes

Tabitha Project – Lincoln, NE – Joyce Ebmeier – Administrator Tabitha Health Care Services

The Green House National Organization was involved extensively in discussions with state and local agencies to assist in getting agency approvals and certification.

Traditional spaces for clean and dirty utilities
  • each bedroom has a closet for clean and dirty laundry.
  • laundry is put in plastic bags and taken to the laundry room.
  • this system was allowed in lieu of creating assigned space for clean and dirty utilities

The kitchen is primarily residential
  • were required to have a commercial hood.
  • pair of dishwashers that met commercial water temperature ratings was used
  • required to install a separate hand-washing sink.
The fact that the “Mother Ship” was located directly across the street made it easier to get certified through the review agencies.

There were minimal challenges to the required codes and regulations.

McCarty Company - Richard McCarty - Green House - Tupelo, MS

Get in contact with the code review agencies as soon as possible in the process
- preliminary meetings were very helpful in expediting the code approval process
- prepare detailed code spreadsheets that outline applicable codes
- outline how complying with that particular code.
Space Program

TSP provided a overview analysis of the space requirements, allocation and programatic relationships of the spaces within a typical 10 bedroom Green House. Each space is discussed in some detail in the narrative that follows the table.

<table>
<thead>
<tr>
<th>Space</th>
<th>Qty</th>
<th>SF/ Each</th>
<th>Net SF</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elder Bedroom/ Toilet</td>
<td>10</td>
<td>300</td>
<td>3,000</td>
<td>Min Req. = 100 SF per bed</td>
</tr>
<tr>
<td>Living Room/ Hearth</td>
<td>1</td>
<td>700</td>
<td>700</td>
<td></td>
</tr>
<tr>
<td>Dining Area</td>
<td>1</td>
<td>216</td>
<td>216</td>
<td>Used by Staff and Elders</td>
</tr>
<tr>
<td>Kitchen</td>
<td>1</td>
<td>180</td>
<td>180</td>
<td>Used by Staff and Elders</td>
</tr>
<tr>
<td>Library/ Office</td>
<td>1</td>
<td>216</td>
<td>216</td>
<td>Serves as nursing support</td>
</tr>
<tr>
<td>Games Storage</td>
<td>1</td>
<td>24</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Med Prep Station</td>
<td>1</td>
<td>24</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Laundry Room</td>
<td>1</td>
<td>100</td>
<td>100</td>
<td>Handles all house laundry</td>
</tr>
<tr>
<td>Public Restroom</td>
<td>1</td>
<td>48</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>General Storage Room</td>
<td>1</td>
<td>100</td>
<td>100</td>
<td>Min Req. = 10 SF per bed</td>
</tr>
<tr>
<td>Janitor's Closet</td>
<td>1</td>
<td>24</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>Medical Gases</td>
<td>1</td>
<td>12</td>
<td>12</td>
<td>Optional if portable gases</td>
</tr>
<tr>
<td>Mechanical Room</td>
<td>1</td>
<td>72</td>
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</tr>
</tbody>
</table>

Sub-Total Net SF 4,716

Net to Gross Factor (15%) 707

Total Gross Area 5,423

Notes:
1. Net to gross factor includes circulation space and wall thicknesses.
Narrative of Spaces

A. Elder Private Room:

Each Elder Room contains a private bathroom. The bathroom is typically designed as a “European Style” space and the entire room is part of the shower. Beds are usually standard electric hospital beds. Elders are given their choice of beds and always choose the electric type.

Elders wear a small transmitter, that when pressed, will signal staff’s beeper via a wireless environment in the house. Lights over each door will also signal staff that assistance is needed. One of the systems used for this purpose is the “Senior Technologies” Arial system from Stanley (See Page 28). This system works for Elders on the patio or front porch areas too.

Medical gases can either be built in to the infrastructure or portable systems may be used.

Lifts are provided in each room to assist the staff in moving Elders out of their beds and into the bathroom. These are provided in lieu of the standard Hoyer lifts (See Page 30).

B. Living Room / Hearth:

The Living Room and Hearth is the heart of the house. Strong emphasis is given in the design of this space to make it feel as purely “Residential” as possible. This includes interior finish upgrades such as woodwork and fabrics. Providing lots of natural light into this space as well as others is a key Green House philosophy. Artificial light must be carefully designed to avoid glare, but still provide the increased level of illumination that Elders need to perceive their environment. Fluorescent fixtures should be avoided, as the flickering is detrimental to seniors.

C. Dining Area:

The Dining Area is where the staff and Elders meet for their meals throughout the day. Furniture should be provided that allows family style meals to occur. The Green House model views food as an essential source of enjoyment in life as well as nourishment for the body. In the Green House the kitchen and the table serve as the centers for meeting this basic human need, providing pleasure, culture and community to the elders and their caregivers.
D. Kitchen:

Both staff and Elders utilize the Kitchen. Those that are able can assist in preparing and/ or serving the daily meals. Green Houses that have been constructed have been given some concessions in the level of commercial food service equipment that is required. Typically, a commercial rated dishwashing machine, exhaust hood and hand sink is all that is needed.

E. Library / Office:

The Library space can serve a dual function. It accommodates the need of the Elder to have a separate, quiet space away from the Living Room. It also provides a space for the staff to do paperwork and hold meetings and eliminates the need for the traditional nursing station.

F. Laundry Room:

Laundry can be handled in a couple of different ways. Some facilities choose to send out laundry to an outside service. Other houses have devised methods to do both the Elder’s personal clothing as well as the bed linens in the house laundry room. One location does one Elder’s laundry at a time, always in plastic bags, and sanitizes the equipment between loads.

G. Miscellaneous:

Exterior doors can utilize sophisticated electronic hardware to restrict the movement of those with Alzheimer’s disease. A system such as “Senior Technologies” Wander Guard will automatically lock a door if it senses the presence of someone with a special key fob on his or her person.

Automatic door openers are sometimes provided. Exterior entry doors are required by code to have their devices, but many Green Houses provide them on bedroom doors as well.

Fenced or walled exterior patios and gardens provide Elders with a safe and secure space to enjoy the outdoors. Studies have shown that adequate access to sunlight provides many health benefits, including the development of stronger bones. Elders are encouraged to participate in the maintaining of the landscaping and garden.

High Speed Internet access is provided with large screen monitors for web-based activities, telemedicine, communicating with family and friends and web cam viewing of on-site animals and woodlands.
All of the developers interviewed suggested that grouping the houses in a “neighborhood” provided the best compromise between a true neighborhood street location for one house in relationship to the others and a campus location that was more practical for the providers in terms of existing land owned and in terms of proximity to their “mother ship” where the clinical and administrative support team resides.

TSP presented the following concept site layout as an example of a functional yet non-institutional arrangement for the anticipated four-house development.

- 2/3-acre per House - Four (4) Houses require approximately 2.7 acres
- Off street parking is approximately 6-8 spaces/house
- Sheridan City Zoning allows this type of facility in most residential districts without need for a variance.
Concept Floor Plan  *(Original Green House in Tupelo)*

This floor plan is the recognized template for a Green House, as conceived by the Traceway team in Tupelo. Dr. Thomas and the owners worked closely with Richard McCarty on this wonderful and innovative household. It is the model for a true Green House and presented here as a starting point for future discussions for a Sheridan project.
**Preliminary Cost Estimate**

At our request, TSP developed the following cost estimates for the 10 bedroom Green House shown in floor plan above. It must be noted that in today’s volatile market any estimate has a relatively short “shelf life” and the estimate must constantly be reviewed. Sources for these numbers are existing projects in the mid west. TSP did make local adjustments and has reported that the estimates are conservative, erring on the high side within the ranges given.

<table>
<thead>
<tr>
<th>Description</th>
<th>Building Cost @ $140/SF</th>
<th>Building Cost @ $175/SF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Cost (5,500 SF, 10 Bedrooms)</td>
<td>$770,000</td>
<td>$962,000</td>
</tr>
<tr>
<td>Site Improvements</td>
<td>$100,000</td>
<td>$100,000</td>
</tr>
<tr>
<td><strong>SUBTOTAL A - Construction Cost</strong></td>
<td>$870,000</td>
<td>$1,062,000</td>
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<tr>
<td>A/E Fees (12%)</td>
<td>$104,000</td>
<td>$127,440</td>
</tr>
<tr>
<td>Misc. Costs &amp; Testing</td>
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<td>$25,000</td>
</tr>
<tr>
<td><strong>SUBTOTAL B</strong></td>
<td>$999,000</td>
<td>$1,214,440</td>
</tr>
<tr>
<td>FF &amp; E Costs</td>
<td>$155,300</td>
<td>$155,300</td>
</tr>
<tr>
<td>Design Contingency (5%)</td>
<td>$43,500</td>
<td>$53,100</td>
</tr>
<tr>
<td>Construction Contingency (10%)</td>
<td>$87,000</td>
<td>$106,200</td>
</tr>
<tr>
<td>Inflation Escalation Factor for Tow Years (8% per Year)</td>
<td>$140,000</td>
<td>$170,000</td>
</tr>
<tr>
<td><strong>TOTAL PROJECT COST</strong></td>
<td><strong>$1,424,800</strong></td>
<td><strong>$1,699,040</strong></td>
</tr>
</tbody>
</table>

Notes:
1. The above costs do not include any site acquisition costs.
2. The above costs are conceptual in nature and may vary as much as 10%.
3. FF & E is Furniture, Fixtures and Equipment and would include such items as lifts, wireless communication system, portable medical gases, beds, furnishings, etc.
The Green House is designed to look and feel like a household. Its non-institutional feel happens as a result of careful attention to the details that one would give to their own home. And yet, integrated within that household are a number of technological systems that both enhance the elder’s day-to-day experience but also add to time and staff cost saving efficiencies. This cost more initially and helps to account for the high per square foot costs.

<table>
<thead>
<tr>
<th>Items</th>
<th>No.</th>
<th>Unit Cost</th>
<th>Total Cost</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Beds</td>
<td>10</td>
<td>$1,500.00</td>
<td>$15,000.00</td>
<td>Costs range from $1500 to $8000/Bed</td>
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<tr>
<td>Electric Ceiling Lifts</td>
<td>10</td>
<td>$3,000.00</td>
<td>$30,000.00</td>
<td>Does not include installation cost of track</td>
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<tr>
<td>Bedroom Furniture</td>
<td>10</td>
<td>$1,200.00</td>
<td>$12,000.00</td>
<td>Chair, Dresser &amp; Nightstand</td>
</tr>
<tr>
<td>Hearth Area Furniture</td>
<td></td>
<td>$5,000.00</td>
<td>$5,000.00</td>
<td>Sofas, Chairs &amp; Tables</td>
</tr>
<tr>
<td>Dining Room Furniture</td>
<td></td>
<td>$3,500.00</td>
<td>$3,500.00</td>
<td>Large Table &amp; (12) chairs</td>
</tr>
<tr>
<td>Den Furniture</td>
<td></td>
<td>$3,500.00</td>
<td>$3,500.00</td>
<td>Entertainment Center, Sofa, Chairs &amp; Table</td>
</tr>
<tr>
<td>Office Furniture</td>
<td></td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td>Desk, Chairs, File Cabinets &amp; Bookshelf</td>
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<tr>
<td>Patio Furniture</td>
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<td>$800.00</td>
<td>$800.00</td>
<td>Table, Chairs &amp; Lounger</td>
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<tr>
<td>Misc. Accessories</td>
<td></td>
<td></td>
<td>$5,000.00</td>
<td>Lamps, Rugs, Magazine Racks, Plants, etc..</td>
</tr>
<tr>
<td>Kitchen Equipment</td>
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<td>$13,000.00</td>
<td>Range, Ref, (2) Comm. D/W (Hood Excluded)</td>
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<td>Laundry Equipment</td>
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<td>$1,500.00</td>
<td>Commercial Washer &amp; Dryer</td>
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<tr>
<td>Medical Gases (Portable)</td>
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<td>$5,500.00</td>
<td>$10,000.00</td>
<td>Oxygen Concentrator &amp; Portable Tanks</td>
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<td>Technology Systems</td>
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<td>$50,000.00</td>
<td>Wireless Comm &amp; Door Hardware Systems</td>
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<tr>
<td>Computers</td>
<td></td>
<td>$3,000.00</td>
<td>$3,000.00</td>
<td>Computers, Monitors and Printers</td>
</tr>
</tbody>
</table>

**TOTAL COST** |  | **$155,300.00** |

Notes:
1. Depending upon the bed selected, Total FF&E Costs may range between $155,300 and $220,300
2. These are conceptual estimates only and final costs may vary.
3. Door Control Systems include Senior Technologies "Wander-Guard" and "Access Pro" Automatic E
4. Wireless Communication costs based upon the Senior Technologies "Arial System"
5. The above costs do not include bed linens, towels, etc..

TSP has advised that they are conservative in their estimates, particularly in the dollar figure for technology. Careful costing will be required in the final design and budgeting.
Other Green House Plans

As a comparison we obtained schematic floor plans for the Green House at Tabitha in Lincoln, NE. This design has been built and differs from the McCarty design in Tupelo because of the reduction from 10 to 9 bedrooms.
Alternative Long-Term Residence  (The Cedars Project in Kansa)

The sponsors in McPherson, KS chose to develop their home with 14 bedrooms, two of which are large enough for occupancy by couples. They also elected to not become a member of the Green House group and therefore are not using the name “Green House” with their project.
The McCarty Company
Design Group, P.A.
Tupelo, Mississippi
Green House Design Consulting Services

The McCarty Company can provide consulting services to assist TSP in the development of a Sheridan Green House project. These services are structured to encourage a sense of partnership among the involved professionals with the intent of providing comprehensive services to the client with local representation. At the same time, The McCarty Company brings past Green House experience and access to the plans previously developed and already compliant with established Green House design principles. Participation by The McCarty Company is not intended in any way to restrict the creativity of the TSP design team. On the contrary, the hope is for the Green House to evolve and improve with every new project, while still complying with the objectives of the Green House philosophy.

Scope of Services

- Validation of Client Program Needs
- Site Design
- Green House Design
- Floor Plan
- Door & Window Schedule
- Roof Plan
- Exterior Elevations
- Reflected Ceiling Plan
- Typical Wall Section
- Interior Elevations Narrative Specifications (Including MEP Design Objectives and typical use of finish materials.)

The McCarty Company has been involved in the development of the Green House concept since its inception. They are committed to the philosophy and the need for its presence in the world of Long-Term Care. They have a sincere intent to further the growth of Green Houses, both in number and in quality.

If selected to participate with TSP in a Sheridan Green House project they will provide a full complement of professionals to the assignment. A sampling of their professional commitment is as described on the following page.

Architect: Licensed Architect with a varying range of experience, capabilities, and leadership, primarily engaged in project management, design, production, and/or construction administration.
Intern Architect: Non-licensed individual with an associates or professional degree, actively involved in the NCARB Intern Development Program, primarily engaged in project design, production, and/or construction administration.

Designer / Technician: Non-licensed individual with a varying range of professional education, capability, and/or experience, primarily engaged in project design, production, and/or construction administration.

Project Administrator: Non-licensed individual with a varying range of project administration experience primarily engaged in a direct support role to the project team and/or as a project administrator.

Interior Designer: Licensed Designers with a varying range of experience, capabilities, and leadership, primarily engaged in project management, design, furniture and material specifications, and/or construction administration.

Design Associate: Non-licensed individual with an associate or professional degree actively involved in the NCIDQ Intern Development Program, primarily engaged in project design, production and/or construction administration.

Technician / Designer: Non-licensed individual with a varying range of professional education, capability, and/or experience, primarily engaged in project design, production, and/or construction administration.

Communications Records

Date: 07/06/06
Project: Sheridan Senior Citizens Council - Green House Project
Project #: 02061220
Subject: Phone Conversation
Attendance: Tom P. Livingston, Gossen-Livingston Architects
Randy A. Zaddach, TSP, Inc.
Project: The Cedars - McPherson, KS

Item(s) Discussed:

1. Gossen-Livingston was the architects for the facility and Tom is the Principal in charge.

2. State of Kansas has adopted the “Green House” philosophy. This made the approval path somewhat easier. The project team made the decision to develop a version of the Green House concept. Their decision to do that was based on two things. They did not want to pay the “Membership Fee” associated with being a true Green House. Secondly, they did not want to compromise their own operational philosophies and adopt the Green House
philosophy exactly. They developed a space program based around the criteria created by the project team.

3. The buildings are wood frame construction and were designed to meet most of the required codes and regulations. They have 12-14 units per house and all are single occupancy rooms at 300 square feet per room except for a couple of rooms that can be used for couples.

4. They have residential prep kitchens as food is prepared at the main facility and delivered to the house. He feels that, if all food were prepared at the house, requirements for commercial kitchens would have been enforced. They have the ability to make things like cookies, cakes, snacks, etc. The bathrooms are “European style.” This means that the entire room is a shower. There is a central bathing room in each unit.

5. There were some concessions made on behalf of the governing code organizations. The rooms are set up for long-term care, but there are no medical gases built into the infrastructure. They utilize portable oxygen units.

6. The code reviewing agencies looked most closely at the mode of operation. They wanted to know how laundry was going to be handled and how food was going to be prepared and served. Tom suggests that each project is unique with its’ own variables and developing a close relationship with the code review agencies is critical. With this in mind, he feels that they would look hard at just one house. A minimum of four (4) houses provides the “critical mass” required to support these types of facilities.

7. Lighting was an issue that they had much discussion about. Typical residential light fixtures do not provide the foot-candles that are required by the codes. Alternatively, fluorescent light fixtures are not ideal for the elderly population due to the flickering of the lamps.

8. Tom estimated that if that project were to be built at today’s construction costs, he would suggest that the building cost would be approximately $135 per square foot. This cost would not include site improvement costs, site acquisition cost, FF & E costs and soft costs.
Item(s) Discussed:

1. Joyce is the administrator for Tabitha Health Care Services and was involved with the development of the Tabitha Green House from its conception in 2001 through the construction in 2006 and current operation of the facility. It was developed under the Green House Program as one of the first four pilot projects.

2. The Green House National Organization was involved extensively in discussions with state and local agencies to assist in getting agency approvals and certification. There were minimal challenges to the required codes and regulations.

3. All kitchen appliances are residential grade. All food preparation occurs within the house, there is no satellite kitchen. They were required to install a commercial hood. They appealed this issue and lost the request.

4. They are located in a residential neighborhood, but only 5 minutes from the main nursing home. There is only the one Green House location. Staffing is coordinated from the main nursing home or “mother ship”. This allows them to staff the house without having additional units for the critical mass.

5. They do not have the traditional spaces for clean and dirty utilities. They have a single laundry area within the house. Each bedroom has a closet for clean and dirty laundry. The laundry is put in plastic bags and taken to the laundry room. Each load is done separately and the machines are sanitized between loads. This system was allowed in lieu of creating assigned space for clean and dirty utilities.

6. The Library space is used by the nursing staff as an office and also for conferences. This gives them additional space efficiency by using space in a flexible manner.

7. They do not have medical gases in place, but the facility was roughed in for them.
have concentrators for oxygen and a shed out back for their emergency tank.

8. The building was completed in 2006 and is now occupied. The final project cost was $1.3 million. This includes all planning costs (dating back to 2001), site development costs, FF&E costs and professional fees and testing costs. The total gross area is 5,300 SF. There are nine (9) patient bedrooms with private baths.

9. The impact on the residents is strikingly evident. Patients that previously lived in the traditional nursing home and were barely mobile are now moving about more within the house and some are making trips to local destinations unaided by staff.

10. The architect was great to work with and helped walk them through many of the issues regarding agency approvals.

Date: 07/07/06
Project: Sheridan Senior Citizens Council
Green House Project
Project #: 02061220
Subject: Phone Conversation
Attendance: Dave Wiebe, Architect – Architectural Design Associates, Inc. (402) 486-3232
Randy A. Zaddach, TSP, Inc.
Project: Green House - Lincoln, Nebraska

Item(s) Discussed:

1. Dave was the Design Architect for the project.

2. The building is constructed of wood framing and wood roof trusses. It is fully sprinklered. The construction is Type 5A. It was originally conceived to have a full basement, but that was deleted as a cost reduction item.

3. One of the code issues that were solved is that of maintaining 6’ to 8’ clear corridors. They used the 2003 IBC allowance to classify the space as a “Suite”. This only left one side corridor, which is 6’ wide.

4. The mechanical units are located in the attic space. They were originally planned to be in the basement. Access to the units in the attic is more difficult, so future houses will be built with basements. Mechanical systems are VAV type to allow each pair of rooms to have individual control from a 5-10 degree range. Code requirements for fresh air were stringent, but they were satisfied.

5. There is a lot of natural light in both the rooms and the hearth area. This is a Green
6. The kitchen is primarily residential. Some stainless steel was used for aesthetic purposes only. They were required to have a commercial hood. A pair of dishwashers that met commercial water temperature ratings was used. This avoided the need for a three-compartment sink. They were required to install a separate hand-washing sink.

7. There is no central bathing room. Originally, a Sun Room with a spa was in the program. This was deleted due to cost considerations.

8. The interior spaces used many premium type finishes, such as woodwork, to give that “residential” feel to the house. This added to the cost of the facility.

9. Elder doors and exterior doors use electronic features for control and lock down. The “Wander Guard” system from Senior Technologies was specified. This hardware will sense the approach of a resident who is not allowed to pass through that door and automatically lock it down to prevent his passage.

10. The Green House organization had no standard building program to work from. The design team developed their own program based upon user needs and applicable codes.

11. The fact that the “Mother Ship” was located directly across the street made it easier to get certified through the review agencies.

12. The actual cost of the building and site improvements was $1 million. This is exclusive of FF&E, Technology, Fees and Site Acquisition (The owner already owned the site). David estimated the cost for the building alone to be $175 per SF. The final building area is 5,200 SF.

13. They are in the planning stages to build more Green Houses in the future for the Tabitha Group. Eventually, they will replace the existing traditional nursing home and it will be demolished.
Date: 07/17/06
Project: Sheridan Senior Citizens Council
Green House Project
Project #: 02061220
Subject: Phone Conversation
Attendance: Richard McCarty
Randy A. Zaddach, TSP, Inc.
Project: **Original Green House - Tupelo, MS**

**Item(s) Discussed:**

1. Richard McCarty is the Partner at The McCarty Company. They developed the original Green Houses in Tupelo, MS.

2. He recommended getting in contact with the code review agencies as soon as possible in the process. Preliminary meetings were very helpful in expediting the code approval process for the green Houses they have been involved with. His firm has prepared very detailed code spreadsheets that outline which codes are applicable and how the building is complying with that particular code.

3. For site planning purposes, he uses the general rule of 2/3 acre per house. Four houses would require approximately 2.7 acres of land.

4. The Green Houses they have been developing range from 6,400 SF to 7,000 SF. All have 10 bedrooms each.

5. Some recent changes they have made in the plan design are to locate the Kitchen next to the Service areas. They have found it creates a more efficient flow for staff to work with.

6. He asked what kind of experience our client has in running a nursing home. I explained that they do not have any, but that some discussions are forthcoming with the hospital to bring them on as a partner. He stated that the staffing issues are a key element to consider, especially if there is just a single house.

7. They are willing to work with us in a variety of ways. He will send a breakdown of possible services for our review.
Date: 07/17/06  
Project: Sheridan Senior Citizens Council  
Green House Project  
Project #: 02061220  
Subject: Phone Conversation  
Attendance: Brian Schneider – Stanley “Senior Technologies” Manager  
Randy A. Zaddach, TSP, Inc.  

Subject: System Technology for Green Houses

Item(s) Discussed:

1. Brian outlined the typical package of specialized technology that Green Houses around the country are utilizing.

2. The technology used for Wireless Nurses Call is the “Arial” system.

3. The technology used for door access controls is the “Wander Guard” System. There are two types of this system available; I.D and Regular. The I.D. system is preferred for Green Houses as it is more “Home-Like.”

4. The system utilized for automatic door openers is the “Access Pro” system. This technology allows Elders to remotely open their Bedroom doors with the press of a key fob.

5. Budget costs for these systems for a ten (10) bedroom house are as follows:
   a. The Arial and Wander Guard systems would be approximately $30,000.00.
   b. The Access Pro system would be approximately $20,000.00.

TSP obtained technical and application information for the wireless technology being specified for inclusion in a Green House.

Narrative - Wireless Technology

The Arial wireless communication system enables residents in assisted living, skilled nursing or independent living to call staff with the press of a button or pull of a cord. The Arial system offers residents mobility and independence with the security of knowing they are able to notify staff when necessary. The system is also equipped with a check-in feature, providing residents with a convenient way to touch base with staff on a daily basis.

The Arial system utilizes state-of-the-art 900 MEz wireless technology. It easily integrates with smoke alarms, the WanderGuard departure alert system and Tabs mobility monitors.
With Arial you're able to economically add to the system as your facility grows. Expanding your system doesn't require miles of hardwiring or expensive remodeling. The Arial wireless communication system is ideal for nearly any facility, whether a high-rise, single-story or multi-acre campus arrangement.

**Standard Features**

- Central monitoring station with Arial software
- A Variety of transmitter options (pendants, pull cord wall transmitters, smoke detectors, door and window transmitters, infrared detectors)
- Fully supervised (self-testing)
- Daily check in devices for residents
- Maintains detailed log of all activity
- Reveals resident location and identity

**Optional accessory kit includes:**

- Alphanumeric pagers
- Wireless locators
- NextCall Call-forwarding
- Wireless scrolling
- Display
- Voice to voice communications module
- Wireless repeaters

**Software Version 4.0**

Arial version 4.0 is innovative software that can automatically track emergency calls and smoke alarms, check windows and doors, report WanderGuard alerts, TABS- fall monitor alarms and resident check-in, all with one centralized program. This user-friendly tool helps maintain information; print reports identify problems and improve your facility's operating efficiency.

When a call is received at the Arial computer, the 4.0 software verbally announces a message and visually displays the call information. The system also sends the call details to optional pagers and remote displays incorporated with the Arial system, enabling staff to respond to these events even if they're not within hearing distance. For discreet messaging the call information shown on wireless displays can be less detailed or different than communications sent to staff pagers.
Arial version 4.0 software not only monitors and records facility activities, it also allows you to create customized reports. Arial’s intuitive Windows interface provides simple point-and-click operation. Report options include summaries, filtered data queries, or call activity and staff response time specifics. Customized password protection allows system administrators to assign varied program privileges to individual staff members.

**Arial Wireless Remote Display**

The wireless remote display gives staff the ability to view emergency calls while going about their normal care routine. When a resident calls for help, remote displays provide programmable information on the resident’s apartment number, name and/or the device type used to call for help. Messages are cleared automatically when staff members respond to a call. Remote notification options help to maximize staff efficiency and speed staff response time. *Due to* their high visibility they are usually considered to be equivalent to lights above the doors in skilled nursing facilities.
**Patient Lift Systems**

A requirement for a Green House (elder dignity and staffing efficiency) is the inclusion in the design of individual lift systems in each bedroom/bathroom combination in the house.

Traditional nursing homes typically utilize the portable lift system shown below. Green Houses use a permanently mounted lift. This system allows staff to easily move Elders out of bed without assistance. It also allows Elders to self-transfer as well. The track is not very obtrusive and does not detract from the "residential" feel of the room. Costs approximately $3,200 each uninstalled.
The ceiling lift employs an electric motor that raises and lowers the patient. The motor is attached to a wheeled trolley that travels along a track that is mounted overhead - normally directly into the ceiling. The main advantage of the ceiling lift is the ease of moving the patient in the horizontal direction. Even a 200 to 300 lb patient can be moved by a frail/elderly caregiver since the trolley moves along the track very easily. Ceiling lifts are also popular due to the fact that they require zero floor space so they perform very well in space restricted areas such as small bedrooms and bathrooms. The main disadvantage of the ceiling lift is the associated installation costs of the overhead tracking. The ceiling lift track is normally attached directly to the joists or rafters that form part of the ceiling.

A track must be purchased and installed in each room that requires patient transfer capabilities. Because of the overhead nature of the ceiling lift, transfers to and from toilet and tub can work very well.

This system enables the Green House staff to provide personal and dignified care to the elder without costly over staffing based solely on the need to lift elders in a traditional way.
Conclusion

This phase provides a thorough review of the architectural design and the resulting negotiated building code issues that developed as a matter of designing and constructing a project. Based on our findings of regulatory issues in Wyoming (See Phase Four) many of these same issues are expected to arise for a Sheridan Green House project.

TSP provided capital cost estimates that will be used in Phase Six work to analyze financial feasibility for the Sheridan project.

TSP has also provided a conceptual site plan showing size and scope of the requirements for a land parcel that can accommodate a project with four houses.

Finally, we have learned from the numerous interviews and discussions held between TSP professional and those representing the successful developments operating Green Houses around the country that the regulatory issues can be negotiated and resolved by reasonable people using logical and well reasoned approaches. Given the advice and direction from the organizations interviewed we believe that the regulatory issues can be satisfied.
A Green House for Sheridan

PHASE SIX – FINAL REPORT

Financial Modeling

Task: Develop financial plans for capital and operating costs, including the feasibility of maintaining the residence and necessary services for alternative long-term residences in the Green House.

Plan of Work

1. Develop a capital requirement projection for the construction and initial start-up of the project, based on identified need and size recommendations from architects and from the Green House Project organization

2. Develop a start-up operating model that projects reimbursement, sources for reimbursement, rent-up rate, resulting revenue and associated operating costs including staffing and variable expenses.

3. Develop a financial model for the administrative and clinical services required to provide support for the operation of the Green Houses.

4. Develop projections for sustainable operation of the total project from start-up through the fifth year.

5. Discuss possible funding scenarios for capitalization

The work conducted in this phase seeks to address the stated objectives for the task as described by the Senior Citizens Council. In conducting the work we utilized our financial modeling software for the development of the statistical and financial analysis. Comparative analysis was used from a financial modeling program provided by the Green House Project. Various industry related studies provided up to date operational data for skilled nursing homes. Reimbursement rates were obtained from current cost reports for Wyoming properties as well as comparative properties in the region. Wage and labor information was obtained from the Wyoming Department of Employment.

Assumptions for Financial Model

This model is based on the development and day-to-day operation of four Green Houses with ten bed units per each house and the requisite support operation providing administrative and clinical services.

The financial model used here assumes a non-profit organization with 501 (c)(3) status.

Note: The report provides summary financial information. Details for the development of the summary information can be examined in the spreadsheets attached with this report.
The financial model that we have used requires certain assumptions be made in order that calculated outputs can be obtained. We have made assumptions based on current and historic data from a variety of information sources. The more important sources used in this work are:

- Green House Project – Financial Projections Workbook
- TSP Architects – Space and Cost Analysis from Phase Five work
- Wyoming Labor Market Information – Sheridan County 2005
- Licensed Nursing Facility Cost Comparison - 2006 Report
- Wyoming Department of Health – Aging Division – July 2006 Reimbursement Rates
- CMS OSCAR Data – Wyoming Provider Summary

Capital Requirements – Construction

Based on the results of Phase Five work we have estimated the capital needed for construction as follows.

<table>
<thead>
<tr>
<th>GREEN HOUSE CONSTRUCTION – PER HOUSE</th>
<th>LOW PROJECTION</th>
<th>HIGH PROJECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>5,423 Sq Ft</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>$175.00/sq ft</td>
</tr>
<tr>
<td>Furniture &amp; Fixtures</td>
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<td>$165,300</td>
</tr>
<tr>
<td>Contingencies</td>
<td>15%</td>
<td>$128,900</td>
</tr>
<tr>
<td>Site Improvements</td>
<td></td>
<td>$100,000</td>
</tr>
<tr>
<td>Inflation Factor</td>
<td>8%/YR – 2 YRS</td>
<td>$137,500</td>
</tr>
<tr>
<td>Building Total</td>
<td></td>
<td>$1,290,900</td>
</tr>
</tbody>
</table>

TSP Architects provided the above estimates after discussions with the architects and developers of existing Green House homes in the country.

Based on these discussions, information obtained from the Green House Project staff at the San Antonio training attended by Wilson and estimates of potential need for services in Phase Three of the study, we have recommended that a minimum of four houses be constructed.

Land Requirements

The architects estimated, and then confirmed with Green House designers, that the four-house project would require just under three acres of land if all four houses were to be built on one “campus” location. We have learned that the regulators (Phase Four) prefer this clustered development since it provides a closer relationship with the clinical support team for the project.
Therefore, we have used a three-acre site to accommodate all four houses as the basis for estimating capital and site improvement costs in this financial analysis. This means that each house would require 10,900 sq. ft. per house and its associated outdoor space.

In order to save capital costs we did not include the construction or land for an office space for the administrative and clinical support team in our estimates. Instead we assumed that this space could be rented. We have included that expense in the expense burden for the support services.

We contacted various sources familiar with current commercial site values. Land costs, were included for this project as follows.

<table>
<thead>
<tr>
<th>GREEN HOUSE LAND COSTS – PER HOUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Land Requirement</td>
</tr>
<tr>
<td>Requirement per House</td>
</tr>
<tr>
<td>Cost Factor</td>
</tr>
<tr>
<td>Cost per House</td>
</tr>
<tr>
<td>Site Improvements</td>
</tr>
<tr>
<td>3 Acres</td>
</tr>
<tr>
<td>¾ Acre</td>
</tr>
<tr>
<td>$4.75/Sq. Ft.</td>
</tr>
<tr>
<td>$155,200</td>
</tr>
<tr>
<td>In Construction Estimate</td>
</tr>
<tr>
<td>130,680 Sq. Ft.</td>
</tr>
<tr>
<td>32,670 Sq. Ft.</td>
</tr>
<tr>
<td>$5.50/Sq. Ft.</td>
</tr>
<tr>
<td>$179,700</td>
</tr>
</tbody>
</table>

**Construction Summary**

<table>
<thead>
<tr>
<th>FOUR HOUSES</th>
<th>LOW</th>
<th>HIGH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land</td>
<td>620,800</td>
<td>718,000</td>
</tr>
<tr>
<td>Construction</td>
<td>5,160,000</td>
<td>6,226,000</td>
</tr>
<tr>
<td>Total</td>
<td>5,780,800</td>
<td>6,944,000</td>
</tr>
</tbody>
</table>

Various soft costs as well as start-up cash needs and working capital for the operation of the houses after opening will be required. These amounts are discussed in the following sections.

**Operating Considerations**

We will start this section with a discussion of revenues, their amounts and sources.

The Green House concept calls for the houses to be licensed and operated within the domain of Medicare/Medicaid/Private payment operations. It was therefore essential for the study to examine the current status of these reimbursement scenarios.
The predominate age group in the nation’s skilled nursing facilities are elderly with a small percentage of the residents being younger and qualified by chronic silliness or injury. For this study we are basing the financial estimates and projections on the elderly cohort only.

**Medicaid**

This nationwide program is funded jointly by the federal government and by the states. For the purposes of this study we are concerned first with the portion of Medicaid that pays for institutional long-term care. Elderly persons covered by Medicaid are low income with few assets and meet nursing home residency requirements as set by the state’s Medicaid agency. In the elderly population there are persons who are qualified for both Medicaid and for Medicare. These are dual eligible persons and they are a part of the identified persons who will be qualified for admission to the Green House should one be built.

Medicaid rates are set by the state based on funding from the federal government. In Wyoming these rates are set on a retrospective, or cost report based format dependent on certain allowable historic costs experienced by the reporting provider.

**Medicare**

Medicare payments to long-term care providers are limited to post-acute skilled care for persons who are 65 years or older. Part A reimbursement provides for persons recently discharged from a minimum of three days in a hospital and then for a maximum of 100 days in a certified skilled nursing facility. Such reimbursement is based on a system of prospective payments driven by set rates within a process called Resource Utilization Groups (RUGS). This is essentially a case mix process that reimburses the nursing facility based on patient acuity and assessed need for care.

**Private Payment**

This revenue source is derived from persons who are not qualified for Medicaid or have not met the requirements for Medicare payments. These payments may be made by the individual and/or from a private long term insurance plan held by the elderly person.

The combination of these sources constitutes the assumed income resource for the Green House project being studied here.
Revenue Mix

We assumed the following payor mix based on information for the state from the Center for Medicare and Medicaid (CMS) OSCAR Report.

<table>
<thead>
<tr>
<th>REVENUE SOURCE</th>
<th>PERCENT OF ELDERS</th>
<th>BED UNITS IN HOUSE</th>
<th>PAYMENT RATE PER DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Pay</td>
<td>11%</td>
<td>1</td>
<td>$163.00</td>
</tr>
<tr>
<td>Medicaid</td>
<td>62%</td>
<td>6</td>
<td>$143.00</td>
</tr>
<tr>
<td>Medicare</td>
<td>27%</td>
<td>3</td>
<td>$300.00</td>
</tr>
</tbody>
</table>

Note that the Medicare rates are based on patient assessment and can vary from $150 per day to as much as $450 per day. We have assumed a rate at the mid point.

It is important to note that reimbursement rates are a constant concern for operators of skilled nursing facilities throughout the country. These rates are federally budgeted with cost cutting and expenditure reduction the goal of every administration. States struggle with Medicaid budgets as well. There is no certainty that the rates will continue to increase or, for that matter, be protected from a reduction in any given year. Industry analysts provide best guesses for future reimbursement scenarios. We have, as a result of our research, assumed a constant 3% annual increase in payment rates for this study.

Utilization Considerations

The utilization of a facility is a measure of the facility census, expressed as a percentage of occupied bed units as compared to the total licensed bed units in the facility. In Wyoming the most current utilization factor, as of June 2006, is 80.8% statewide with the median occupancy at 86.7%. Our findings for the two local facilities taken from their published cost reports showed occupancies under 80%.

The Green House Financial model uses a utilization of 93% for a house operating at a stabilized occupancy. We believe this to be a fair assumption because of the expected acceptance of the Green House concept and a willingness of the elders and their caregivers to select a Green House over a traditional nursing home. In our start-up model the average occupancy for the first year is 75%.

Design occupancy for this study is therefore set at 93% which means that, at design occupancy, 9 of the 10 bed units in each house will be occupied. At a stabilized point when the total project is on line we are projecting 37 elder residents will be living in the projects 40 bed units.
Rent-Up Process

Opening any new residence-based facility requires time to fill the bed units. This period is a potentially costly part of the development process, the expenses are occurring, cash is flowing out and revenues flowing in are slow to build. The nursing home industry has not built a lot of new facilities over the past few years and, as such, fill rate data is not readily available. The existing Green Houses that have opened have been built as replacement facilities for older traditional properties and they can fill quickly since they are simply moving residents from the traditional bed units to the new Green House units.

Lacking good data we have relied on our experience with new assisted living properties. These properties take 9 to 12 months to rent up to their design utilization occupancy.

For this study we have assumed 12 months to rent up a house. The projection is base on one new house coming on line every three months with all four being open and operational at the end of the first year. The rent-up process for house number 2, 3 and 4 will project into the second year of operation.

<table>
<thead>
<tr>
<th>START-UP YEAR</th>
<th>HOUSE</th>
<th>MO 1</th>
<th>MO 2</th>
<th>MO 3</th>
<th>MO 4</th>
<th>MO 5</th>
<th>MO 6</th>
<th>MO 7</th>
<th>MO 8</th>
<th>MO 9</th>
<th>MO 10</th>
<th>MO 11</th>
<th>MO 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>50%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>85%</td>
<td>90%</td>
<td>91%</td>
<td>92%</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>50%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>85%</td>
<td>90%</td>
<td>91%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>50%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>85%</td>
<td>90%</td>
<td>91%</td>
<td>92%</td>
<td>93%</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>50%</td>
<td>55%</td>
<td>60%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>85%</td>
<td>90%</td>
<td>91%</td>
<td>92%</td>
<td>93%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECOND OPERATING YEAR</th>
<th>HOUSE</th>
<th>MO 13</th>
<th>MO 14</th>
<th>MO 15</th>
<th>MO 16</th>
<th>MO 17</th>
<th>MO 18</th>
<th>MO 19</th>
<th>MO 20</th>
<th>MO 21</th>
<th>MO 22</th>
<th>MO 23</th>
<th>MO 24</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
</tr>
<tr>
<td>2</td>
<td>92%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
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<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
</tr>
<tr>
<td>3</td>
<td>90%</td>
<td>91%</td>
<td>92%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
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<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
</tr>
<tr>
<td>4</td>
<td>80%</td>
<td>85%</td>
<td>90%</td>
<td>91%</td>
<td>92%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
<td>93%</td>
</tr>
</tbody>
</table>

Revenues

On the basis of the above assumptions for reimbursement, payor mix, rent-up scenario and utilization levels we have projected three years of revenues from the start-up year through the first stabilized year (third year).
The start-up year reflects the phasing in of a project that is scheduled to be completely ready for all houses to be ready to occupy by the end of the twelfth month after construction begins. This aggressive schedule is suggested to take advantage of an efficient construction process that is more likely to attract a qualified builder.

The rent-up process will continue into the second year with all houses operating at design occupancy by the end of the second quarter of that year. After that time the project will be considered to operating at a stabilized condition. Revenues from the project will continue to increase through the end of the second quarter in the second year as more bed units are occupied, then level off at the projected stabilized flow after that time. We have applied a 3% increase to the reimbursement and private pay rates for this second year's projection and then for every year thereafter.

At stabilization, revenues will be projected to grow at a rate consistent with the increases provided by the entitlement programs. These increases are controlled by the CMS and the state Medicaid agency.

The percentage of growth is difficult to project since national and state budgetary constraints come into play and attempting to second-guess these complicated decisions is beyond the scope of this study. Once again, we have applied a 3% increase to the model resulting in incremental increases in revenues.

Revenue Projection Summary – Four Houses

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year One</td>
<td>$1,294,300</td>
</tr>
<tr>
<td>Year Two</td>
<td>$2,564,500</td>
</tr>
<tr>
<td>Year Three</td>
<td>$2,702,400</td>
</tr>
<tr>
<td>Year Four</td>
<td>$2,783,500</td>
</tr>
<tr>
<td>Year Five</td>
<td>$2,867,000</td>
</tr>
</tbody>
</table>
Operating Expenses - The Green Houses

The operation of each home requires expenditures for day-to-day operations. Payrolls, food, supplies and consumable goods all contribute to the expense columns. These are most often variable expenses that depend upon the occupancy of the house. There are some semi-variable expenses specific to the house that exist independent of the occupancy. Examples are basic staffing, utilities, maintenance, etc.

Our model factors these expenses into the operational analysis beginning with the most costly portion of any facility, its payroll expenses.

1. Staffing Projections

Payroll costs make up just over 67% of the variable expenses for a Green House. This cost is considerable and must be considered very carefully.

The Green House financial model provides a good picture of their expected staffing patterns. For a project with 4 homes open and running at the design occupancy of 93% their projection is for a total of 44 full time equivalent positions. Our study projects the following staffing.

<table>
<thead>
<tr>
<th></th>
<th>Start-Up Year</th>
<th>Stabilized Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct Care Staffing (Shahbaz) per house</td>
<td>7.6 FTE</td>
<td>8.6 FTE</td>
</tr>
<tr>
<td>Clinical Support Team</td>
<td>10.3 FTE</td>
<td>10.3 FTE *</td>
</tr>
<tr>
<td>Administrative</td>
<td>4.0 FTE</td>
<td>4.0 FTE *</td>
</tr>
</tbody>
</table>

This pattern will require a total for the four-house project of 34.4 direct care FTEs plus 10.3 Clinical Support and 4.0 Administrative for a total of 48.7 FTEs. We are conservative in our projected staffing.

* Note: Green House model projects these levels for a fully staffed and operational project with four houses at 93% occupancy. We made no provision for a smaller staff in Clinical and Admin personnel for the start-up year.

2. Pay Rates

Determining pay rates requires research into the prevailing conditions in the industry as well as in the region where the labor force will be employed. Sheridan employers are aware of the tight labor market currently being experienced in the area. Shortages of workers and resulting increasing pay rates are making comparative projections difficult to say the least.

For this study we have examined the latest Wyoming Department of Employment wage information published for May 2005. In addition we reviewed data from the Green House
financial model as well as industry publications such as McKnight’s Long Term Care Journal where they regularly report prevailing wage levels for our region.

The resulting assumptions reflect localized and regional rates. The volatile situation in Sheridan right now is not reflected and may be difficult to pin down at this time. We have tried to be conservative, erring on the higher side of the estimates whenever possible.

3. Workforce Availability

As mentioned above, the region is experiencing a tight labor market at this time. The issue of workforce availability is another serious issue at this time and must be considered when decisions are being made about the launch of a project.

4. Direct Care - Shahbazim

One of the core values of the Green House model is the importance of the direct care staffing working in each house. The Shahbaz are the primary interface and support for the elders in the house. They are trained as universal workers and as such take on much of the “management/supervisory” responsibility normally assumed by department heads in a traditional nursing home.

The 2005 Wyoming Labor Market report lists nursing aides at a mean wage of $11.92 per hour. Our model uses $13.28 per hour because these positions are critical to the success of the self-directed team that provides all of the non-clinical services to the elders living in the house. Added to this above average rate are a holiday pay plan, health insurance plan and a contribution to a retirement fund for each person. These benefits add about 10% more to the earnings of the employee.

These expenses consume just over 67% of the total expense budget, $77.62 for every day of service provided to the elders. A 3% annual increase in payroll costs is projected in the model. We have summarized the total payroll expenses for the houses projected from start-up through the stabilized year (Year Three) and then into the fifth year.

<table>
<thead>
<tr>
<th>DIRECT CARE STAFFING PER HOUSE - SHAHBAZIM</th>
<th>FULL TIME EQUIVALENTS</th>
<th>START-UP PAYROLL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shahbazim</td>
<td>7.6</td>
<td>$267,300</td>
</tr>
</tbody>
</table>

Variable Payroll Projection Summary – Per Green House

<table>
<thead>
<tr>
<th>Payroll</th>
<th>YEAR ONE</th>
<th>YEAR TWO</th>
<th>YEAR THREE</th>
<th>YEAR FOUR</th>
<th>YEAR FIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$267,300</td>
<td>$314,500</td>
<td>$324,000</td>
<td>$333,700</td>
<td>$343,700</td>
</tr>
</tbody>
</table>
Variable Expenses

The payroll expenses are the largest category of costs for the operation of the house. There are however, other costs that result from its day-to-day operation. The model follows standard industry practices of relating these costs to a factor per resident (elder) day (PED). The following table provides the non-payroll projections for the start-up year operation.

<table>
<thead>
<tr>
<th>VARIABLE NON-PAYROLL EXPENSES PER HOUSE START-UP</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXPENSE ITEM</td>
</tr>
<tr>
<td>Direct Elder Care Supplies</td>
</tr>
<tr>
<td>Food and Dietary</td>
</tr>
<tr>
<td>Laundry</td>
</tr>
<tr>
<td>Housekeeping</td>
</tr>
<tr>
<td>Maintenance</td>
</tr>
<tr>
<td>Utilities</td>
</tr>
<tr>
<td>Office Supplies</td>
</tr>
<tr>
<td>Activities</td>
</tr>
<tr>
<td>Training and Education</td>
</tr>
<tr>
<td>Transportation</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>

A 3% annual increase in these expenses is used in the financial model.

Summary - Non-Payroll Variable Expense – Per Green House

<table>
<thead>
<tr>
<th>Variable Expenses</th>
<th>YEAR ONE</th>
<th>YEAR TWO</th>
<th>YEAR THREE</th>
<th>YEAR FOUR</th>
<th>YEAR FIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>$52,750</td>
<td>$66,600</td>
<td>$68,600</td>
<td>$70,700</td>
<td>$77,800</td>
<td></td>
</tr>
</tbody>
</table>

Summary - Total Variable Expenses – Per Green House

<table>
<thead>
<tr>
<th>Payroll Expense</th>
<th>YEAR ONE</th>
<th>YEAR TWO</th>
<th>YEAR THREE</th>
<th>YEAR FOUR</th>
<th>YEAR FIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>$267,300</td>
<td>$314,500</td>
<td>$324,000</td>
<td>$333,700</td>
<td>$343,700</td>
<td></td>
</tr>
<tr>
<td>Variable Expenses</td>
<td>$52,750</td>
<td>$66,600</td>
<td>$68,600</td>
<td>$70,700</td>
<td>$77,800</td>
</tr>
<tr>
<td>Total per House</td>
<td>$320,050</td>
<td>$381,100</td>
<td>$392,600</td>
<td>$404,400</td>
<td>$421,500</td>
</tr>
</tbody>
</table>
Summary – Total Variable Expenses – Four Green Houses

<table>
<thead>
<tr>
<th></th>
<th>YEAR ONE</th>
<th>YEAR TWO</th>
<th>YEAR THREE</th>
<th>YEAR FOUR</th>
<th>YEAR FIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll and Variable</td>
<td>$ 800,200</td>
<td>$1,490,200</td>
<td>$1,570,400</td>
<td>$1,617,500</td>
<td>$1,666,000</td>
</tr>
<tr>
<td>Operating Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Project Support – Administration and Clinical

No single house can sustain operations nor meet regulatory requirements on its own. An array of services in support of the direct care team of Shahbaz working in each house is vital. Administrative tasks that provide business oversight and operational elements join forces with a skilled group of health care workers to support the elder care that takes place in each house on a daily basis.

Regulations require this support, providing nursing and therapeutic medical care as well as the administrative functions that keep the business of the Green House on track. One house cannot pay for these essential services. The Green House Project team suggests that four houses with ten bed units per house is the minimum that can pay for the support operations. This is a cost center operation and the expenses are not considered variable relative to each house. The key to financial feasibility is to match the cost center operation to the number of elder bed units such that efficient and cost effective spread of the expenses occurs. Each house must generate adequate excess revenues over and above their specific expenses to pay for their share of the support cost center operation.

These services are assembled in an office facility located near the housing clusters so that they can be available for routine delivery as well as for emergency needs should they arise.

This operation acts as a cost center, relying on the revenues from the houses to pay its expenses. No other revenue is assumed. The cost center has payroll expenses as well as variable operating costs related to the volume of business conducted through the center. This center is also responsible for all cash management, budgeting, banking transactions, bookkeeping and business records, human resources tasks, risk management, reimbursement reporting, debt service, marketing and a variety of other tasks related to the day to day administration tasks for the four house - forty bed operation.
1. Clinical Support

The support staffs for elder care are shared positions among the four houses. They provide clinical care and therapies as required by the elder’s medical needs. They are by and large full time positions distributed among the elders living in the houses. These positions require skilled personnel who are licensed by the state.

The pay rates for these positions were set by comparisons to the rates used in the Green House financial model and from the current wage report from the Wyoming Department of Employment for the 2005 rates paid in Sheridan County.

The Green House Project recommends the following staffing for the support team:

Director of Nursing staff position in a supervisory position that directs the nursing services provided. This position is budgeted as one FTE at a rate of $25.00 per hour.

<table>
<thead>
<tr>
<th>Clinical Support Staffing - Start-Up</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FULL TIME EQUIVALENTS</strong></td>
<td><strong>ANNUAL PAYROLL</strong></td>
</tr>
<tr>
<td>Clinical Support</td>
<td>10.3</td>
</tr>
</tbody>
</table>

To this position we have added 2.8 FTEs of Registered Nursing at a rate of $20.00 per hour, 5.6 FTEs of Licensed Nursing at $18.00 per hour and 1.0 FTEs of therapeutic and dietary services ranging from $18.00 per hour to $12.00 per hour. All positions are given benefits in addition to their wages. These pay rates are projected to increase 3% annually.

2. Administrative Support

The Guide (administrator) of the overall project is a highly paid position commensurate with his/her responsibility for the four-house complex and all of its elders living there. The Wyoming Labor report lists a median pay rate of $45.86 per hour for “medical and health services managers” in a wide range of institutional settings including hospitals as well as skilled nursing facilities. The Green House financial model used a rate of $45.00 per hour.

As a comparison we found 2005 rates for nursing home specific administrators in the mountain region of the U.S. as low as $29.09 per hour. In 2006 McKnight’s Long Term Journal reported that the national median administrator rate was at $38.46 per hour. Given the lower indicated rate for region and the national median rate from McKnight we used a rate at the high side of the national median of $35.00 plus benefits for the position.

We projected three additional FTEs in the administrative group providing clerical, records and financial services to the four houses. These positions are projected in the model at $15.00 to $18.00 per hour plus benefits.

<table>
<thead>
<tr>
<th>Administrative Staffing - Start-Up</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FULL TIME EQUIVALENTS</strong></td>
<td><strong>ANNUAL PAYROLL</strong></td>
</tr>
<tr>
<td>Administration</td>
<td>4.0</td>
</tr>
</tbody>
</table>

These payroll expenses are projected to be fixed for the project beginning at the time of construction since they are temporarily stationary.
required by regulation when the first bed unit is occupied. The practical solution will be
to monitor staffing and rent-up carefully and match the support staffing to the need
dictated by regulation. In the model the payroll costs are projected to increase by 3% per
year.

Administration and Clinical Support Payroll Summary

<table>
<thead>
<tr>
<th></th>
<th>YEAR ONE</th>
<th>YEAR TWO</th>
<th>YEAR THREE</th>
<th>YEAR FOUR</th>
<th>YEAR FIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>$217,100</td>
<td>$223,600</td>
<td>$230,300</td>
<td>$237,200</td>
<td>$244,300</td>
</tr>
<tr>
<td>Clinical Support</td>
<td>$521,500</td>
<td>$537,100</td>
<td>$553,200</td>
<td>$569,800</td>
<td>$586,900</td>
</tr>
<tr>
<td>Total</td>
<td>$738,600</td>
<td>$760,700</td>
<td>$783,500</td>
<td>$807,000</td>
<td>$831,200</td>
</tr>
</tbody>
</table>

Administration and Clinical Support Variable Expense Summary

Assumptions made for this cost center are that the support operation will rent or lease its
required offices in a location that is close proximity to the houses. It also assumed that
the support operation’s non-payroll expenses are variable in the sense that they are
related to the cost per elder day without recognizing the rent-up effect during the start-up
year. We have assumed that the support cost center must become operational during the
time when the construction is taking place inorder to be operation when the houses start
admitting elders. Therefore we may have slightly overstated the costs for operation of the
support operation during the first year.

<table>
<thead>
<tr>
<th></th>
<th>YEAR ONE</th>
<th>YEAR TWO</th>
<th>YEAR THREE</th>
<th>YEAR FOUR</th>
<th>YEAR FIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable Expenses</td>
<td>$101,600</td>
<td>$104,700</td>
<td>$107,800</td>
<td>$111,000</td>
<td>$114,400</td>
</tr>
</tbody>
</table>

Administration and Clinical Support Total Cost Summary

<table>
<thead>
<tr>
<th></th>
<th>YEAR ONE</th>
<th>YEAR TWO</th>
<th>YEAR THREE</th>
<th>YEAR FOUR</th>
<th>YEAR FIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll</td>
<td>$738,600</td>
<td>$760,700</td>
<td>$783,500</td>
<td>$807,000</td>
<td>$831,200</td>
</tr>
<tr>
<td>Variable</td>
<td>$101,600</td>
<td>$104,700</td>
<td>$107,800</td>
<td>$111,000</td>
<td>$114,400</td>
</tr>
<tr>
<td>Total</td>
<td>$840,200</td>
<td>$865,400</td>
<td>$891,300</td>
<td>$918,000</td>
<td>$945,600</td>
</tr>
</tbody>
</table>
Financial Performance – Five Year Projections – The Total Project

The financial model, using the assumptions, estimates and projections discussed in this report provides a summary analysis of the results from start-up and operation of four houses with a total of 40 bed units occupied at 93%.

The summary is as follows:

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Revenues</th>
<th>Expenses</th>
<th>Net Op Income (Houses)</th>
<th>Net Op Income (Project)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONE</td>
<td>1,294,300</td>
<td>800,200</td>
<td>494,100</td>
<td>(346,100)</td>
</tr>
<tr>
<td>TWO</td>
<td>2,564,500</td>
<td>1,490,200</td>
<td>1,074,300</td>
<td>208,900</td>
</tr>
<tr>
<td>THREE</td>
<td>2,702,400</td>
<td>1,570,400</td>
<td>1,131,800</td>
<td>240,500</td>
</tr>
<tr>
<td>FOUR</td>
<td>2,783,500</td>
<td>1,617,500</td>
<td>1,165,800</td>
<td>247,800</td>
</tr>
<tr>
<td>FIVE</td>
<td>2,867,000</td>
<td>1,666,000</td>
<td>1,200,800</td>
<td>255,220</td>
</tr>
</tbody>
</table>

Notes
Net Op Income = NOI
The houses produce positive cash from operations after start-up
Administration expenses include reserves for plant/maintenance/replacement
First year loss attributed to rent-up effect on revenues and “fixed” Admin/Clinical expenses

**No provision for debt service is included in these projections.** Debt service of $200,000 per year is anticipated.

Debt Service

The NOI from the project provides in excess of $200,000 per year. This projected cash stream is assumed to be available for repayment of debt that will be incurred by the project.

A amortization of debt calculation shows that a $200,000 annual cash flow could cover debt of just under $3.0 million at the high end to $2.4 million at the low end, based on various interest rates and 30-year term as follows:

<table>
<thead>
<tr>
<th>Assumed Rate</th>
<th>Principle Amount</th>
<th>Debt Payments (Annual)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.50%</td>
<td>$2,950,000</td>
<td>$ 201,000</td>
</tr>
<tr>
<td>6.00%</td>
<td>$2,800,000</td>
<td>$ 201,500</td>
</tr>
<tr>
<td>6.50%</td>
<td>$2,650,000</td>
<td>$ 201,000</td>
</tr>
<tr>
<td>7.00%</td>
<td>$2,500,000</td>
<td>$ 201,200</td>
</tr>
<tr>
<td>7.50%</td>
<td>$2,400,000</td>
<td>$ 201,400</td>
</tr>
</tbody>
</table>
Capital Requirements

Based on the construction and land costs discussed at the beginning of this report plus the cash used to start and bring the houses to stabilized occupancy we can project the need for capital for the project.

Two scenarios are considered – “Low Estimate” and “High Estimate” based on two different costs per sq ft for construction and land.

These numbers are for a project with four houses each with 10 bed units.

<table>
<thead>
<tr>
<th></th>
<th>Low Estimate</th>
<th>High Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land (3 Acres)</td>
<td>620,700</td>
<td>719,000</td>
</tr>
<tr>
<td>Building and Equipment (4 each)</td>
<td>5,163,500</td>
<td>6,226,100</td>
</tr>
<tr>
<td>Soft Costs for Project</td>
<td>591,700</td>
<td>689,000</td>
</tr>
<tr>
<td>Cash Losses during Start-Up</td>
<td>346,000</td>
<td>346,000</td>
</tr>
<tr>
<td>Working Capital</td>
<td>167,000</td>
<td>167,000</td>
</tr>
<tr>
<td>Total Capital Required</td>
<td>$6,888,900</td>
<td>$8,147,100</td>
</tr>
</tbody>
</table>

This model assumes that this cash will be required for construction of the first house beginning month one and adding the construction of the second house three months after that, third house three months after that and so on. The houses will open on the 13th month, 15th month, 18th month and 21st month after the construction commences.

Funding Scenarios

<table>
<thead>
<tr>
<th></th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total capital required</td>
<td>6,888,900</td>
<td>8,147,100</td>
</tr>
<tr>
<td>Debt supported by NOI</td>
<td>2,500,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Equity cash required</td>
<td>$4,388,900</td>
<td>$5,647,100</td>
</tr>
</tbody>
</table>

The equity financing for this project will require careful thought and planning with input and guidance from professionals familiar with non-profit capital project financing. Additionally the project will attract attention from interested parties, namely the State of Wyoming, and the Green House Project team at NCB Development Corporation. It is also possible that foundations and contributors who have expressed interests in the elderly and their care may be interested in the “pilot project” aspects of the development.
One possibility for reducing the total cash equity needed is a donation of land to the project. This would reduce the equity requirement by $600,000 to $700,000.

Conclusion

The operational aspects of the Green House provide sufficient cash flow to support modest debt assuming a stable and predictable increasing reimbursement policy from the feds and the state. It is probable that the private pay component will be higher than we have projected. There is every reason to believe that utilization of the houses will be above that of the traditional nursing facility. The population continues to age and elders need and want the things epitomized by the Green House concepts and core beliefs.

Expenses will continue to increase in step with reimbursement. Workforce issues will plague the operation for the foreseeable future.

Capital assembly is the most difficult problem. Borrowing combined with federal/state grants and a benevolent community will be called upon to provide equity in a sizable amount.

It is fair to say that the Sheridan Senior Citizens Council will not be able to develop the necessary funding without significant help from one or more “sponsors” who can assemble the necessary additional borrowing and/or gifting capacity. It is possible that the Council will not have the capacity to act as the operating entity for this project.

This will be explored in the last and final phase of the study.
A Green House for Sheridan

PHASE SEVEN - FINAL REPORT

Market Characteristics

RFP Requirements
Conduct research necessary to understand regional and local market characteristics related to implementing alternative elder long-term residences and more specifically the Green House Project.

Plan of work

1. Identifying the Market Area for the Project
2. The Continuum of Care
3. Defining the Customer and the Consumer
4. Identify the “typical” Nursing Home Resident
5. Demographic profile of Sheridan County Seniors
6. Affordability and Reimbursement
7. Referral Networks

The Market Area

Elderly persons prefer to remain in their own home. When the time comes that they must consider moving to service enriched living setting like an assisted living facility or a nursing home they again prefer to do so within the an area of comfort, within their own neighborhood, community, or town. They do not like to go “out of town” for elder care, particularly for living services. Their network of friends, family and support are in their community and they do not want to leave this support network.

This is particularly true for a move to a nursing home. Statistics show that fewer than 10% of nursing home residents transfer in from outside, with “outside” defined as from out of their community of residence. The cross-county or state transfers that do occur are because of geographic and personal conveniences (living closer to the facility, easy access roadways, family in another area, desire to be near a larger metro area, etc.).

The commercial center of Sheridan (services, retail, medical, acute care, primary physicians, etc.) may have an effect on some minimal transfer into Sheridan from adjacent counties like Johnson County, particularly for short stay post hospital stays that are covered by Medicare. It is not likely that any transfer will occur from Campbell County
due to the competitive size of Gillette and the travel distance. It is even more unlikely that any transfer will occur from the west side of the Big Horn Mountains due to travel difficulties. Some interstate transfer between the rural areas in Montana (Big Horn County) may occur due to the health care and commercial center aspect of Sheridan for those persons living closer to Sheridan than to the closest adjacent Montana towns such as Hardin.

For the purposes of this study and in keeping with the stated mission of the Council we are identifying the Market Area for a potential Green House project as Sheridan County.

Having said this we would remind the reader that, assuming there is an available bed unit, when accepting Medicaid qualified residents we cannot refuse admission to anybody based on where they live. It is therefore possible that a person may relocate from anywhere in the state and request admission to the next available bed unit.
The Senior Services Continuum

As we consider the characteristics of the market place we must examine the available services that are in place to provide services and care for the senior and elderly populations living within that market.

With an aging population like that of Sheridan County there comes a responsibility, on the federal, state and certainly on the local level to provide services. Healthcare planners, government agencies and informed communities are all aware of the importance of developing a “seamless” program of services and networks that can meet the needs of the aging population of an area. Obviously the visionaries in Sheridan have recognized the importance of planning for and implementing programs that will help meet the need for elderly health and well being. In seeking to improve this seamless system planners need to consider the basic continuum for elderly services, which can be illustrated as follows:

This continuum is no surprise to the Sheridan Seniors Council. They have played a very important role in helping to insure that Sheridan’s older population has appropriate opportunities for services and care.

Customers and Consumers in the Marketplace

An analysis of the marketplace requires a clear understanding of who the customer is. In the case of elder care and the selection of a residential living arrangement there really are two categories to consider.
There are two distinct groups who are of significant importance in the analysis of needs for skilled nursing services. These two groups are closely related yet somewhat different in their decision-making perspectives. The decision to move into a nursing home is often seen from different perspectives by each of these distinct groups.

- **Consumers** are the senior and elderly persons who will actually live in the skilled nursing home.

Consumers qualified for skilled nursing services are most likely middle to lower income elderly who are in poor health, and socially and functionally dependent most of the time. These individuals may or may not recognize their physical limitations and are concerned about their ability to remain in their homes for as long as possible. Everyday activities of living are an increasing burden, and many of these residents will only agree to choose skilled nursing services when they are convinced that they cannot care for themselves without putting a severe burden on their families. A high percentage of these persons are concerned that emergency assistance will be available should it become necessary. More than three-fourths of persons who move into skilled nursing settings are women; most recently living alone or recently discharged from a hospital or from an assisted living facility.

- **Customers** are defined in this report as the family members who provide support to and often make critical decisions for the senior and elderly. They have discretionary situations that may cause them to look at the decision and selection process differently than that of the elderly parent.

These are usually the adult children of the elderly. They may or may not be living in the community. They are usually in the age group 55 to 64 years old and are either directly or indirectly (in advisory roles) responsible for the well being of the elderly person should that person become unable to be responsible for themselves.

A typical profile would be an adult daughter, married, living with her spouse and children, working and middle to upper middle income. Her role is as companion, advisor and, if living near the elderly person, part time care giver when the elderly parent is in need of personal assistance.

**The Decision to Move**

Persons who choose, or have chosen for them, skilled nursing settings as an alternative to living alone or in lower level of care environment such as an assisted living facility will do so based on their decision making perspective.
The decision regarding a nursing home setting is difficult, usually involving family (the adult children) advising and urging the elderly person. This decision is needs driven in that it is made as the result of an incident or significant change in the independent status of the elderly person. From the view point of the elderly (the consumer) the decision to move into a nursing home is probably the final decision that the elderly person will make regarding how they will live out their last days. The act of making the decision seems to signal the ‘end of the line’ for the elder. No wonder it is unpleasant and to be avoided at all cost.

For both parties the cost of care and the ability to pay is a significant factor but probably more important to the elder that to the younger care giver.

Each decision maker will have their priorities for making a choice. The key motivators are similar for each decision maker. The priorities are different however. These motivators are, in order of importance to each:

From the viewpoint of the consumer  ..... 
- Dignity, independence and personal freedom
- Affordability of the service as measured by perceived ability to pay
- Maintenance of or improvement in his/her health status
- Security and safety felt while living in the facility

From the view point of the customer  ..... 
- Security and safety provided for the elderly person
- Maintenance of, or improvement of elderly person’s health status
- Dignity, independence and personal freedom
- Affordability of the service as measured by ability to pay

The elderly person values their personal freedom and independence above all else while the family is looking for security before any other benefit from the move. Each will determine affordability from their own perspective.

To properly understand the market and its dynamics the distinction between the consumer and the customer must be understood. This will drive decisions about programs, facility design, sales messages and overall marketing activities.

The Nursing Home Resident (Consumer)

We need to look in more depth at the profile of the typical nursing home population to begin to understand the consumer.
According to publications from the Department of Health and Human Services, Centers for Disease Control “The National Nursing Home Survey - 1999 Summary” and “The Changing Profile of Nursing Home Residents: 1985 to 1997, March 2001” the typical nursing home resident has the following characteristics.

- 14% of the residents are between the ages of 65 and 74 years old, 36% are 75 to 84 years old and 51% are 85 plus years old.
- The average for a resident at the time of admission is just over 82 years.
- Women make up just over 70% of the occupancy of the facility.
- 57% of the residents are widowed.
- 59% of all residents are using Medicaid resources as their primary method of payment.
- 70% of all residents are long-term and never discharged back to the community.
- The average length of stay for all residents is 892 days (2.5 years) from date of admission.
- For those who are short-term and do discharge back into the community the average stay is 272 days with some leaving in less than 90 days.
- Residents who admit to nursing homes do so from a variety of places, most commonly from a hospital following an incident or serious illness (58%). The balance come directly from their homes or other community based providers with about 40% of these from settings where they have been living alone.
- Admissions to skilled nursing homes are caused by a need for personal and clinical services that have grown beyond the ability of the elderly person, their family care provider, home health care and other such community based services that may be available. Most informed eldercare providers, including the American Nurses Association, believe that care provided outside of the institutional setting is desirable and should be exhausted before admitting to the skilled facility.
- Activities of daily living (ADLs) are a measure of functional ability by or for the elderly person in conducting basic care needs. There are six identified tasks that are measures of the ability of an individual to live independently.
- They are:
  (1) Bathing (2) dressing (3) eating (4) transferring (5) toileting (6) walking
- At admission the average resident requires assistance with just over 4 of the identified ADLs. When this need for services is assessed for assisted living the number is less than 3 ADLs.
• Persons admitting to a skilled nursing facility do so because they require help with daily activities but, more importantly, because they are experiencing failing physical and mental health. Almost all residents experience one or more adverse health conditions at the time of admission. The most prevalent are:
  
  (1) Cardiovascular diseases  
  (2) Cognitive or mental disorders  
  (3) Endocrine disorders
• Among these cognitive impairment, incontinence and functional decline beyond the ability of the elder or care giver to handle are the most common indicators of the need by the elderly person or family to consider admission.

This profile outlines the physical person the Green House would provide services for.

Sheridan County Seniors

There are more 65 plus persons, as a percentage of the total population, living in Sheridan than in the state. We have nearly 16% of our population who are 65 years or older and this is projected to rise to 17% by the year 2010. This is a little more than 3% greater than percentage for the state of Wyoming.

Another indicator of the aging of the Sheridan population is the median age –

| Sheridan County Median Age | 40.6 years old |
| Wyoming Median Age          | 36.2 years old |

<table>
<thead>
<tr>
<th>65+ POPULATION – SHERIDAN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Total Population</td>
</tr>
<tr>
<td>Change per Year</td>
</tr>
<tr>
<td>Change per Period</td>
</tr>
<tr>
<td>% Total Population</td>
</tr>
</tbody>
</table>

Claritas - Senior Life Report

When we examine this aging trend we are interested in the elderly age group that is 85 plus years old, sometimes called the “old” elderly group. As we learned above, 51% of all nursing home residents are 85 years old or older.
In 2005 Sheridan County’s senior’s age demographic was estimated to be:

- 85 plus years  591 persons  2.2% of total population
- 75 to 84 years  1,568 persons  5.7%
- 65 to 74 years  2,124 persons  7.8%

Once again, for reference, Wyoming’s 85 plus cohort was 1.6% of the total population in 2005.

Household Incomes Sheridan County – 2005

There is of course another aspect to consider about the market place. That is one of consumer’s ability to purchase. A good indicator of the purchasing power of the populations is to consider household incomes for the various age groups.

<table>
<thead>
<tr>
<th>AGE GROUP</th>
<th>LESS THAN $15,000</th>
<th>$15,000 TO $24,999</th>
<th>$25,000 TO $49,999</th>
<th>$50,000 PLUS</th>
<th>MEDIAN HOUSEHOLD INCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 to 69</td>
<td>134</td>
<td>145</td>
<td>233</td>
<td>203</td>
<td>$33,250</td>
</tr>
<tr>
<td>70 to 74</td>
<td>124</td>
<td>154</td>
<td>210</td>
<td>161</td>
<td>$30,104</td>
</tr>
<tr>
<td>75 to 79</td>
<td>156</td>
<td>139</td>
<td>187</td>
<td>135</td>
<td>$26,129</td>
</tr>
<tr>
<td>80 to 84</td>
<td>133</td>
<td>113</td>
<td>136</td>
<td>96</td>
<td>$24,235</td>
</tr>
<tr>
<td>85 plus</td>
<td>132</td>
<td>89</td>
<td>102</td>
<td>37</td>
<td>$20,312</td>
</tr>
<tr>
<td>Total Households</td>
<td>679</td>
<td>640</td>
<td>868</td>
<td>632</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>24%</td>
<td>23%</td>
<td>31%</td>
<td>22%</td>
<td></td>
</tr>
</tbody>
</table>

An examination of the median household incomes by age group helps to understand the economic status of Sheridan County when compared to Wyoming and the U.S. Sheridan County median household incomes for the 65 plus age group are about 10% to 12% lower than the income levels for the 65 plus households in the state and the country.

MEDIAN HOUSEHOLD INCOMES – SHERIDAN COMPARED TO STATE OF WYOMING

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Sheridan County</th>
<th>State of Wyoming</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 to 69</td>
<td>$33,250</td>
<td>$36,282</td>
<td>$37,137</td>
</tr>
<tr>
<td>70 to 74</td>
<td>$30,104</td>
<td>$35,044</td>
<td>$35,034</td>
</tr>
<tr>
<td>75 to 79</td>
<td>$26,129</td>
<td>$28,044</td>
<td>$28,748</td>
</tr>
<tr>
<td>80 to 84</td>
<td>$24,235</td>
<td>$25,687</td>
<td>$26,100</td>
</tr>
<tr>
<td>85 plus</td>
<td>$20,312</td>
<td>$22,692</td>
<td>$22,895</td>
</tr>
</tbody>
</table>
Living Arrangements

The living arrangements of an elderly person is a good indicator of their possible need for the services provided by a supportive setting such as a skilled nursing home. Elderly persons who are living alone are more likely to need assistance with daily living as well as companionship, socialization, etc. Data from the US Census for 2000 provides us with a profile of living arrangements for the age groups we are interested in.

<table>
<thead>
<tr>
<th>Arrangement</th>
<th>65-74</th>
<th>75-84</th>
<th>85 plus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living with spouse</td>
<td>64.4%</td>
<td>48.8%</td>
<td>26.9%</td>
</tr>
<tr>
<td>Living alone</td>
<td>23.0%</td>
<td>36.9%</td>
<td>48.3%</td>
</tr>
<tr>
<td>Living with other relatives</td>
<td>10.0%</td>
<td>12.6%</td>
<td>22.3%</td>
</tr>
<tr>
<td>Living with non relatives</td>
<td>2.6%</td>
<td>1.7%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

In the U.S. 31% of the population age 65 and older were reported to be living alone in 2000. For the state as a whole just under 30% were reported to be living alone. Data for Sheridan County for the year 2000 shows that a significantly higher percentage (36%) of the 65+ population was living alone.

Disabilities

The Census provides a morbidity factor profile for the senior populations. This data identifies the percentage of persons within the age group that are identified as having a “disability”. We have discussed this as it relates to a need for assistance (ADLs) in another section of this report. Our interest here is how Sheridan County looks when compared to the state and to the national data.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Sheridan</th>
<th>Wyoming</th>
<th>U. S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Disabled</td>
<td>% Disabled</td>
<td>% Disabled</td>
<td>% Disabled</td>
</tr>
<tr>
<td>65 plus persons</td>
<td>39.3%</td>
<td>39.3%</td>
<td>41.9%</td>
</tr>
</tbody>
</table>

Sheridan and Wyoming residents are reported to be slightly less disabled than the population of the country.
The Family Caregivers (Customers)

This population group plays an important role in the marketplace for eldercare. They can often exercise influence the financial and admission process for the elder person. We need to look at the population and demographic profile for this influential group in Sheridan County. Industry information and Health and Human Services tells us that the typical care giver is an adult child, most likely a daughter, who provides most of the emotional support while the head of household provides the financial advice and assistance if it is available. This age group is between 55 and 64 years old.

In this case we are interested in the households since it is the strength of the household that provides support for the elderly person, both before and if and when that person admits to a nursing home.

FAMILY CARE GIVERS – HOUSEHOLDS – SHERIDAN COUNTY

<table>
<thead>
<tr>
<th>AGE GROUP</th>
<th>LESS THAN $15,000</th>
<th>$15,000 TO $24,999</th>
<th>$25,000 TO $49,999</th>
<th>$50,000 PLUS</th>
<th>MEDIAN HOUSEHOLD INCOME</th>
</tr>
</thead>
<tbody>
<tr>
<td>55 to 59</td>
<td>150</td>
<td>166</td>
<td>348</td>
<td>537</td>
<td>$44,407</td>
</tr>
<tr>
<td>60 to 64</td>
<td>120</td>
<td>129</td>
<td>294</td>
<td>438</td>
<td>$43,191</td>
</tr>
<tr>
<td>Total Households</td>
<td>270</td>
<td>295</td>
<td>642</td>
<td>975</td>
<td>$43,191</td>
</tr>
<tr>
<td>% of Total</td>
<td>12%</td>
<td>14%</td>
<td>29%</td>
<td>45%</td>
<td></td>
</tr>
</tbody>
</table>

Claritas - Senior Life Report for Sheridan County

49% of these households had incomes above the median income level for the county. In Wyoming about one half of the households were above the median. Slightly less than half of all of these households were at or above $50,000 per year in Sheridan County and in the state as well.

The growth in the number of households within this age group in Sheridan County was about 7% per year between 2000 and 2005. This rate of growth is expected to slow to around 4% per year from 2005 through 2010. The state experienced similar rates and projections. The growth for the general population households was only about 1% per year for the same time frame. This is a clear indication of the so called baby boomer explosion that will impact all of the senior and elder care providers in the marketplace.
Market Area – Other Providers

The presence of other nursing home providers in the area should be considered in any analysis of the market place. The resource for this is the Wyoming Department of Health Licensed and/or Certified Health Care Facilities Data Base – 2005

<table>
<thead>
<tr>
<th>Provider</th>
<th>Licensed Beds</th>
<th>Certification</th>
<th>Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sheridan Manor</td>
<td>128</td>
<td>Medicare/Medicaid</td>
<td>84%</td>
</tr>
<tr>
<td>Westview Health Care Center</td>
<td>102</td>
<td>Medicare/Medicaid</td>
<td>76%</td>
</tr>
</tbody>
</table>

Planners sometimes look at the ratio of licensed nursing beds to every 1,000 persons who are 65 years and older as an assessment of the market area.

In Sheridan County this ratio is

- 230 licensed beds/4,283 persons 65+ = 54 beds per 1,000 persons

For the state as a whole the ratio is

- 3,061 licensed beds/62,153 persons 65+ = 49 beds per 1,000 persons

- In the U.S. this ratio is = 46 beds per 1,000 persons

Clearly Sheridan and Wyoming have more beds per 1,000 than the nation, accountable by our somewhat older populations, particularly in Sheridan County.
Conclusion

Our analysis of the market area shows an aging population that is increasing faster than the same age groups in the state. More of our seniors are in the old elderly group (85+) than the in the state. In addition we are poorer and more likely to need financial assistance with long term care. More of our elderly live alone and are therefore more at-risk but we are no more disabled than the elderly in the state.

Our caregiver families are reasonably well off and the age group is increasing rapidly.

Finally we seem to have too many traditional nursing home beds. Measured on a beds per 1,000 basis we can show that our ratio is 10% higher than the state and about 15% higher than the U.S. ratio. This will become problematic when we begin to deal with the regulatory issues.
Conclusion and Recommendation

For as long as most of us can remember the nursing home has represented a place where old folks go when they have no other option. First as a way of getting us out of the way, out of sight out of mind. Later, in an attempt to make it right by regulation, these places became institutions where the regulations control lives. And in the last few years providers actually believed that these institutions could be made to look and act “just like home”. Nothing has worked and today, more than ever, nobody wants to move to the nursing home, many opting to live at home, all alone and at risk rather than give up hope and just make the move.

The Green House Project has provided an idea that can, if encouraged and acted upon, create a place where elders who have a need for personal and clinical assistance can make an intentional decision to move in and live their remaining days with more dignity, more control and more contentment than ever before possible.

Now is the time Sheridan, now is the time Senior Citizens Council, you can make this happen!

Conclusion

The Sheridan Senior Citizens Council is not the right organization for the ownership and operation of a Green House project.

However, the Council can and should play a very important role in the introduction of the Green House concept to Sheridan. Once introduced, the Council must then champion that concept by helping a qualified organization embrace it leading to the development, construction and operation of enough houses to meet the needs of the at risk elderly population in and around Sheridan.

Our conclusion and recommendation is based on the following analysis and findings from the study.
REASONS WHY THE SENIOR CITIZENS COUNCIL SHOULD TAKE AN ACTIVE LEADERSHIP ROLE IN THE DEVELOPMENT OF A LONG-TERM SKILLED NURSING GREEN HOUSE PROJECT IN SHERIDAN

1. Participation in a Green House project is aligned with the Senior Citizens Council’s stated mission and purpose.

2. Stated Goal - create new services, adapt others based on input/changing needs of customers and the community

3. Stated Goal – meet the needs and desires of changing generations

4. Purpose - shall be to improve the quality of life for senior citizens of all socio-economic levels in the Sheridan Area …...

5. Strategic thrust .. to engage in long range planning that results in better services for the seniors in Sheridan

ISSUES THAT CREATE MISALIGNMENT BETWEEN ACTIVITIES OF THE SENIOR CITIZENS COUNCIL AND THE ACTUAL OWNERSHIP AND OPERATION OF A GREEN HOUSE PROJECT

The commitment is …… to serve the homebound, the frail, and at-risk senior citizens by taking the services to those who cannot reach the Center …

1. Service area - defined as Sheridan “area” and as Sheridan County

2. Current culture is one of preventing early admission into a nursing home

3. Clearly the Senior Center is committed to service to seniors and elders who are better served at home
OPERATIONAL REASONS WHY THE SENIOR CITIZENS COUNCIL SHOULD NOT OWN AND OPERATE A GREEN HOUSE

1. The project may not contribute significant cash into the overall operation of the Senior Center (Increase financial viability through self funding programs - Key Initiative – 2006 Retreat)

2. The project requires large capital investment, ($7 to $8 million) in order to reach “critical mass”. SCC does not have this capital and may not be able to assemble it.

3. Requires the development of a sophisticated business operation demanding experience and skills that are not currently in place at SCC

Recommendations

If not the Senior Citizens Council, who???

The Ideal Organization

- The organization must understand and embrace completely the Green House concept.
- The organization must be a non-profit
- The organization must be one that has structure in place with direct experience in nursing and personal care of clinically dependent persons in a residential setting.
- The organization must be able to contribute capital and development experience
- The organization must be able to operate the facility and provide administrative and clinical services completely within the paradigm that is the Green House

Sheridan County Memorial Hospital (SCMH) is such an organization.

How can SCC and SCMH collaborate to get this project underway?
**Action Plan**

1. Form an ad hoc committee to work together - involve the leadership of both

2. Expect and ask for full buy-in for the task

3. Immediately involve the Green House Project organization in the work of the committee

4. Identify a source of and obtain funding to support the exploratory and early stage work of the committee

5. Create a step by step plan that involves a pilot program to develop one house on the SCMH campus

6. Seek funding for this pilot with commitments for follow on construction of additional houses to maximize effective utilization of administrative and clinical overhead

7. Create a marketing and public relations activity to support the pilot and follow on development

8. Engage fully the legislative cadre and governor’s office in the pilot program campaign (funding, regulatory issues)


10. Decide ..... design ..... construct ..... Turn it over to SCMH

11. SCMH continues the work to add additional houses to the campus

**Then what ??????**

- Redirect the committee to find and secure additional sites for the additional houses that will not fit on the SCMH campus.

- Urge the development of additional houses until the need is fully met.

- The committee assist other communities in their development work as a way of giving back for the support of the pilot program