Carbon Neutral Planning for a Sustainable Senior Community

As more and more companies and people look to “go green,” how do you move past top-line ideas into overall sustainability? Specifically, how do you enhance award winning, but piecemeal green programs into a truly sustainable community with quantifiable measurements that help a large, 43-year old campus become carbon neutral?

Over the last five years, Valle Verde Retirement Community has built a Green Initiative with programs for solar generation, Built Green remodeling, energy conservation, native landscaping, reclaimed water, solid waste reduction, recycling, and alternative transportation. After winning numerous awards from city, state, and national organizations, the 550 staff and residents would like to see their 60-acre campus evolve into a carbon neutral community that serves as a model for other retirement communities, college campuses, and business parks that seek to retrofit and grow “green.” On the brink of a new 40-senior home and campus remodel, Valle Verde is at an optimal juncture for incorporating new goals into campus renovations, existing home upgrades, and new buildings.

Project Objectives

Question: How can a local retirement community improve its current green programs and incorporate future growth to create a truly sustainable community?

Objectives:
- Analyze existing green programs and recommend comprehensive, sustainable options for the growth of Valle Verde Retirement Community.
- Address a wide variety of environmental concerns and issues, from energy efficiency and generation, to waste reduction and localization.

Significance & Stakeholders

Nationally, the senior population is predicted to double to 70 million people by 2030. Locally, it is forecasted that 53% of the employees at the City of Santa Barbara will reach retirement age in the next five years. With the trends both locally and nationally showing a significant increase in the senior population, green enhancements at retirement communities are likely to become a big trend. Creating recommendations for Valle Verde to transition from a collection of green programs into a comprehensive, sustainable community will benefit its 550 seniors and staff and serve as a roadmap for retirement communities throughout the nation. Valle Verde is also part of American Baptist Homes of the West, which has 32 retirement communities throughout the west.

- Sustainable communities are part of the climate change solution.
- Setting goals for carbon neutrality provides impetus for continued action.
- GHG reduction strategies are integral to climate change mitigation and potential legislation around carbon emissions.
Background

Valle Verde is a non-profit, retirement community in Santa Barbara (located at 900 Calle de los Amigos) that seeks to enhance the independence, well-being, and security of seniors through the provision of housing, healthcare, and supportive services. Situated on 60 acres, the community has always, in its 43 years of existence, looked beyond the provision of services to its members and attempted to effect changes within society. Accordingly, the community (over 350 residents and 200 staff) embarked on an ambitious path 5 years ago to become a model, sustainable community.

Their Green Initiative includes programs for:

- Built Green senior home remodeling
- Solar energy generation (52kw)
- Energy conservation & reduced natural gas usage
- Native & drought tolerant landscaping, green waste composting
- Reclaimed water use & climate controlled irrigation
- Solid waste recycling
- Electronic health records
- Alternative transportation programs for staff & residents
- Local food programs & reduced food deliveries

Additional information is available online at www.ValleVerdeSB.com/community.

Possible Approaches & Available Data

Recommend Green Campus Sustainability Solutions that may include:

- Reviews of Valle Verde’s programs in use
- Guidelines and suggestions to integrate individual green programs into one synergistic, sustainable approach
- Opportunities with key vendors to improve sustainability in the supply chain (such as Valle Verde’s work with Sodexo to create a local food program)
- “Lessons Learned” for use with other communities looking to either retrofit or grow “green”
- A resident & staff survey to determine levels of “green” education and overall appreciation of campus efforts

The project team will have access to Valle Verde’s implementation teams and advisors as well as available data that includes:

1. Energy management data
2. Energy efficiency/generation installation data (i.e. previous installations of solar PV, solar thermal, residential retrofits)
3. Waste reductions via composting, food purchasing, and recycling
4. Water savings from landscaping initiatives & reclaimed water use
5. Green program initiatives covering existing programs and measurement tools
Deliverables

- List of recommendations for future sustainable actions and programs related to the master planning of Valle Verde Retirement Community
- Policy directives related to implementation, incentives, and ROIs of future sustainable actions

References

- Dan George, Valle Verde Advisory Board Member, D.L. George Construction Company, 805.563.9600
- Dennis Allen, former Valle Verde Advisory Board Member, Allen & Associates, 805.884.8777

Project Proposers

- Ronald Schaefer, Executive Director, Valle Verde
- Justin Van Mullem, Principal, ON Design Architects
- Lindsey Taggart, Building Energy Specialist, Community Environmental Council
  - community organization sponsor

Internship Opportunities

1. An internship will be available tied to this proposal that will include opportunities for study at Valle Verde, ON Design Architects, and the Community Environmental Council to further the development of sustainable recommendations for the Valle Verde campus. Due to the fact that both Valle Verde and CEC are nonprofits, it would be desirable to have this internship funded through Bren School grant funding.

2. ON Design Architects is offering one internship that will assist the design team in incorporating new sustainable recommendations into the proposed Valle Verde Master Plan.

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New Campus Plan