

Site Planning • Alternative Transportation • Energy Efficiency • Renewable Energy • Resource Conservation • Resident Health

Nueva Vista Family Housing

131-136 LEIBRANDT STREET
SANTA CRUZ, CALIFORNIA

Nueva Vista is a cutting-edge example of how a dedicated affordable housing developer can incorporate many green features into a project while working within a limited budget. A 48-unit urban infill project just steps from the Santa Cruz Beach Boardwalk, Nueva Vista reduces car trips by including a child care facility and a city community center on-site, improves the health of residents by using a variety of non-toxic finishes, and lowers operating costs by incorporating solar electricity and other energy efficient measures.

Nueva Vista grew out of a lengthy organizing and community design effort in conjunction with the project's very low and low-income residents who work in the county's tourism and agricultural sectors, and the green aspects of the project helped build political support from the Santa Cruz City Council. The example set by Nueva Vista was instrumental in leading the developer, Mercy Housing California, one of the state's largest developers of affordable housing, to establish green building guidelines for all its future building projects.

PROJECT INFORMATION

Project Size:

Two buildings, 64,802 s.f. total, 48 units with child care facility and community center

Construction Cost:

\$10 million (\$154/s.f.)

Completion Date:

November 2003

Owner/Developer:

Mercy Housing California

Architect:

Van Meter Williams Pollack

Mechanical/Electrical Engineer:

MCT Engineers

General Contractor:

Devcon Construction

Energy Consultant:

Farber Energy Design

Solar Consultant:

EcoEnergies, Inc.

Financial Consultant:

Community Economics

GREEN FEATURES

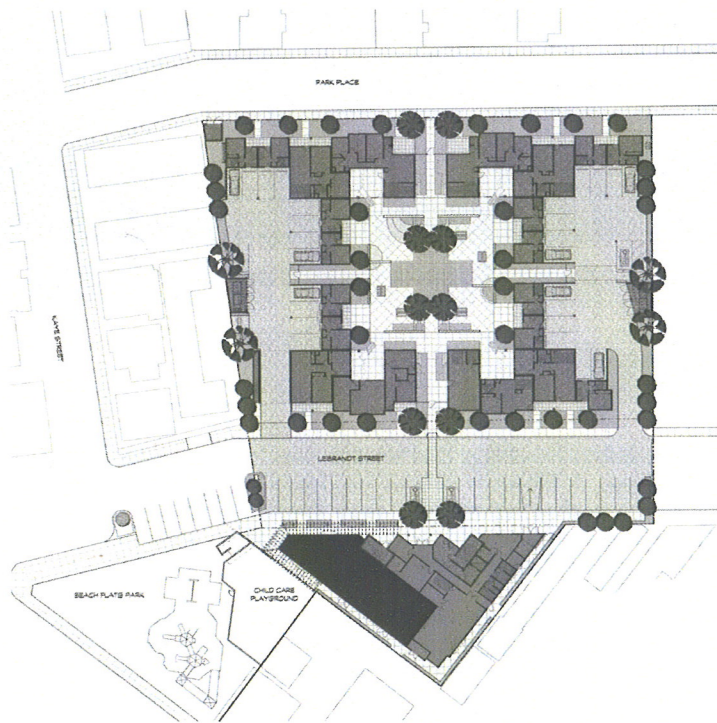
Nueva Vista was conceived as a green project from the start, an aspect that greatly contributed to its overall success. Both green design and affordable housing experience were used as key criteria in the selection of the design team. The developer also identified potential funding resources early on, taking particular advantage of changes to the allocation criteria for affordable housing tax credits in California that support sustainable design. Because of this upfront commitment and the realization that some extra resources were potentially available, many of the project's green features were not "add-ons" but integral to the design.

In the early design phases, attention was paid to building orientation so that the units could maximize the benefits of both sunlight and ocean breezes. Window-shading and

through units enabled the project to eliminate air conditioning and rely purely on natural ventilation to cool the building. Hard-coat glazing allows for heat gain during the cold winter months but still reflects harmful ultraviolet rays.

Energy efficiency was also stressed. Gas-powered hot water heaters do double duty by providing space heating in each apartment. (See Diagram) Highly efficient refrigerators were also specified for each unit. As a result of these and other measures, the entire complex is expected to exceed the standards of the California Title 24 Energy Code by at least 15%. With all units individually metered for both gas and electricity, much of the energy savings will flow directly to the residents. Meanwhile, the owner will save approximately \$5,000 per year in operating costs by directing the

(Continued on Next Page)



The site plan orients the buildings to maximize the benefits of both sunlight and ocean breezes

(Green Features Continued)

electricity generated by the 20 kW solar system to the common areas, including all exterior and interior common area lighting, the irrigation system, the elevator, and office machines, computers and appliances in the community room.

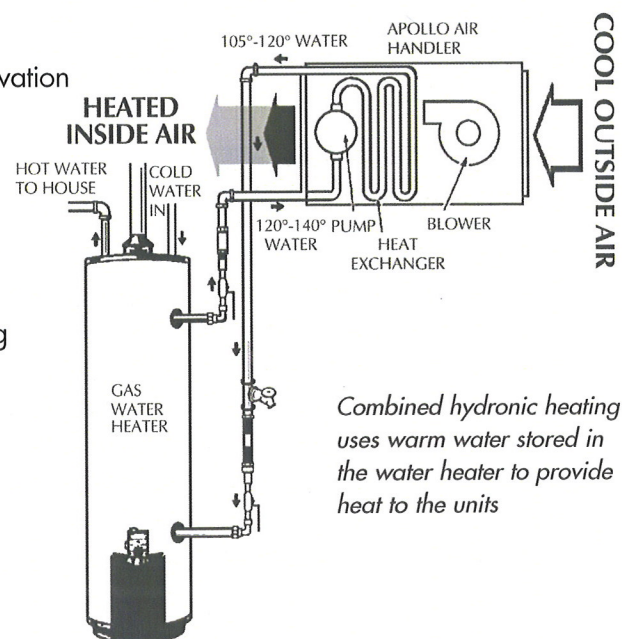
Researching, identifying and specifying green building materials, particularly those which have a positive effect on the health of residents, was a major challenge. The architect worked with their own appropriate materials checklist to set design criteria and explore cost implications. Later, a green design charrette, conducted by Global Green USA as construction documents were being prepared, helped narrow the choices and identify creative ways to pursue green building objectives. For example, a system of "bid alternates" was devised so that the contractor would obtain cost information for green materials that were not included in the original budget. This enabled Mercy Housing the flexibility to choose and prioritize which features could affordably be incorporated into the development.

Site Planning/Alternative Transportation

- Highly efficient drip irrigation system with scheduled timing
- Native, drought-resistant plants with low water needs
- Reduced parking
- Ample bicycle storage

Energy Efficiency and Renewable Energy

- Individual electrical and gas meters to promote energy conservation
- Hot water heaters also power space heaters (see illustration)
- Energy Star™ appliances
- All fluorescent lighting
- Double paned windows with low-E, hard-coat glazing
- No mechanical cooling
- 10 kW AC solar electric system installed on each building
- 140 roof-mounted solar panels generate approximately 35,000 kilowatt-hours per year
- Digital display of solar generation in each building, displaying \$350/month in operating cost savings



Resource Conservation

- Sustainably harvested plywood, FSC-Certified
- Permanent flow restrictors reduce water use in sinks by two-thirds
- Natural linoleum flooring in kitchens and bathrooms
- Recyclable carpet with high level of recycled content
- Construction waste recycling