developing sustainable planned communities

Urban Land Institute
Holiday Neighborhood
BOULDER, COLORADO

Located at the northern edge of Boulder, Colorado, the 27-acre (11-hectare) former Holiday Drive-In Theater site is being redeveloped as a new urban community in an area dominated by suburban growth patterns. Holiday Neighborhood contains 334 homes designed in a wide range of styles, building types, and prices, including 138 affordable properties, and 5,000 square feet (465 square meters) of commercial space—a gourmet pizza restaurant, a bakery/coffee shop, a fitness center, an eco-friendly dry cleaner, and office condominiums. The project also has a community garden, pedestrian walkways, bike paths, a two-acre city park, and several pocket parks. From the beginning, the aim of the developer, a public/private partnership, has been to combine the best of locally based sustainable design and development practices with the affordability, the arts, and a healthy lifestyle.

Holiday Neighborhood emphasizes sustainability's "three Es"—economy, equity, and environment—through high-density, clustered, mixed-use development that encourages walking, biking, and transit use.
mixed-use development that reduces energy and encourages walking, biking, and transit use. Its sustainable features include passive and active solar heating, solar orientation, roof overhangs, and awnings to minimize heat gain in summer; recycled and other low-impact building materials; energy-efficient building systems; state-of-the-art lighting guidelines; and innovative stormwater management strategies.

The project is the result of a partnership between local housing authority Boulder Housing Partners (BHP)—a quasi-governmental agency—and six private developers. BHP acted as the land developer and sold finished lots to its development partners. As Cindy Brown, BHP's co-executive director for development, notes, "Projects undertaken by BHP must meet a triple bottom line by accomplishing social, financial, and environmental goals." In the case of Holiday Neighborhood, these goals often complement each other. The financial goal of generating a surplus in the land development phase, for example, has enabled BHP to invest in 40 rental housing units, which is buying back from its development partners and earmarking for low-income households.

Site and Context

Although immediately bounded by local roads as well as U.S. Highway 36, the site is largely surrounded by open space to the north and east. To the northwest sits a National Guard Armory, which is a local developer recently proposed building a grocery store and residential condominiums. Limited residential and commercial/industrial development has taken place near the site's southern and western edges.

After the Holiday Twin Screen Drive-In Theater closed in 1989, the land remained vacant for several years. Although the landowner had signed a letter of intent with a big-box retailer to build a warehouse store on the site, a community planning process determined that this was not what Boulder wanted on one of its last undeveloped parcels. In March 1997, the city purchased the land for $4.8 million, or about $4 per square foot ($43 per square meter). The following year, the city sold the site to BHP, a public entity separate from the city. The agency took over the responsibility for the land loan; its goal for the site was to create a desirable, diverse, sustainable, and affordable community. The entire North Boulder area is being developed within the context of a community plan that emphasizes new urbanism.

Sustainability as a Core Value

One of the BHP's primary goals for the Holiday Neighborhood was to limit its environmental impact. BHP envisioned the neighborhood as a diverse community in which walking would be a pleasure and public transportation, trails, and bike paths would be easily accessible. These features would reduce automobile dependence. To receive a building permit, the builders must comply with the Boulder Green Points Building Program, which requires residential builders to meet rigorous criteria designed to conserve land, water, energy, and other resources.

In 2001, the Sustainable Futures Society (SFS), a Denver-based organization dedicated to sustainable development practices, secured an EPA Sustainable Development Challenge Grant to help green Holiday Neighborhood. The EPA challenged SFS to select several key aspects of sustainable design, incorporate them into the neighborhood, and evaluate the air and water quality benefits by comparing them with traditional development. SFS convened a meeting, facilitated by the Rocky Mountain Institute and attended by SFS, Holiday Neighborhood's architects and developers, and city officials to discuss the project's sustainability focus. At this first meeting the developers chose water quality, energy efficiency, energy systems analysis, and materials recycling/acquisition as key areas on which to focus. As Jim Logan, architect of WiMaSage pointed out at this early meeting, energy-efficient design is a great match with the Holiday Neighborhood's affordability goal, because it will result in lower-than-average utility bills. SFS explored a wide range of cutting-edge technologies that could be used to reduce Holiday Neighborhood's impacts on water quality, stormwater runoff, and energy use. While many of these proved to be too expensive or otherwise impractical to implement, others were incorporated into the project. The Holiday Neighborhood project took green features a step beyond those required by Boulder's Green Points Program, establishing sustainability guidelines for the neighborhood that challenged development teams to produce innovative designs and efficient technologies that were sufficiently cost-effective to turn a profit with an affordable project. All of the builders selected to develop projects within the Holiday Neighborhood were already familiar with affordable and sustainable development, and all specified insulation, building materials, appliances, and other features that surpassed the green guidelines.

Holiday Neighborhood includes community gardens, bike paths, and pocket parks.
Master Plan

Acting as the master site developer, BHP hired a master planner, Boulder-based Barrett Studio Architects, to create a concept plan for Holiday Neighborhood. From the beginning, BHP aimed to create a variety of housing types in the neighborhood, including a cohousing community. Public input into the project also began early on, with a kick-off barbecue on the site and a series of public meetings designed to determine what various stakeholders wanted to see happen there. Affordable housing was near the top of everyone’s list. Consequently—and to meet city requirements described in the Approvals section below—BHP required 40 percent of the neighborhood’s homes to be affordable to low- and moderate-income households (those earning less than 80 percent of area median income). To help developers meet this goal, BHP discounted land sales. It also held two acres (0.8 hectares) for a city park and dedicated another 70-foot-long (21-meter-long) corridor to the city for a nature buffer and bike path along the edge of the site.

BHP structured its planning process to be inclusive, inviting public involvement throughout. In a city famous for public debate and opposition to development, Holiday Neighborhood faced no significant opposition. The site plan is designed around Holiday Park, the living room of the neighborhood, which will be located on the site of the former drive-in theater screen. To the west of the park, mixed-use development acts as a gateway to the neighborhood off North Broadway. North and east of the park, residential and live/work properties will include single-family detached dwellings and attached housing, artist studios, small offices integrated into the fabric of the neighborhood, a community garden, and pocket parks. Easy Rider Lane, near the center of the neighborhood, is named after the first film screened at the drive-in, and the theater’s original sign, now restored, sits along the edge of Holiday Neighborhood off U.S. Highway 36.

Development Process

It took more than seven years just to get the Holiday Neighborhood project underway. When negotiations for the site began in 1996, several members of the local real estate community opposed the deal, arguing that the public sector should not be involved in development. Boulder’s focus on providing affordable housing—with a stated goal of making 10 percent of the city’s housing stock permanently affordable to households earning less than 60 percent of area median income—was a critical component in the city’s commitment to purchase the site. Despite opposition, the city council authorized the sale, provided a $1 million grant, and allowed city reserves to be used to back an interim loan for the purchase.

After securing the land, BHP entered the city’s planning approval process. Although the city’s planning board supported the Holiday Neighborhood concept site in 1999, the plan itself created a barrier to development because it called for an overall density of 20 units per acre (about 50 units per hectare), twice the density specified in the city’s subcommunity plan for the area. It took the city a year to draft and adopt an ordinance that created a density bonus to allow the level of development required by the site plan.

An inclusionary zoning ordinance passed in 2000 requires 20 percent of housing in all new residential developments (except condominium conversions) to be permanently affordable to households earning less than 80 percent of area median income. The ordinance that created the bonus required double that amount—a total of 40 percent—affordable units in larger projects. Further site review and approval of the technical document for Holiday Neighborhood took until the end of 2002.

After the initial Holiday Neighborhood site plan was completed, BHP issued a letter of interest, to which it received about 45 responses. After two rounds of interviews, BHP—on the basis of the applicants’ strengths and past histories, as well as their commitment to the project—clearly stated affordability and sustainability goals—selected six development partners to design and develop residential and commercial buildings in specific sections of the neighborhood. BHP developed the necessary infrastructure and sold fully entitled and finished lots to its development partners.

A groundbreaking ceremony was held on the site in December 2002. The infrastructure for the entire neighborhood was developed in a single phase, since doing so was more cost effective. BHP obtained a construction loan for the entire cost of infrastructure development and selected a contractor in early 2003. Infrastructure construction—including streets, utilities, sidewalks, curbs, gutters, and rough grading—began in March 2003 and was completed that September.

As BHP completed infrastructure improvements and obtained the required approvals, it reimbursed the land to its development partners at prices ranging from $11 per square foot for the Northern Lights (fully affordable) project site to $23 per square foot for some of the mixed-use Broadway North project ($30 to $248 per square meter).

Each project within Holiday Neighborhood has its own name and identity. Coburn Development was selected to develop the largest portion of the site as five separate projects: Studio Mews has 32 residential units and 12 commercial (artist studio/office) units, as well as a pedestrian path and outdoor gallery/meeting space; NorthStar Place combines 33 townhouses and loft-style condominiums with eight commercial units; Crescent, a development featuring Holiday Park, includes 40 condominium units in four elevator buildings; Holiday Squares contains eight townhouse-style units in four duplex buildings; and 2 Park, with 25 detached single-family homes and carriage houses. Naropa University, with Wolff/Yon Architects, was chosen to develop North Court, which has 68 residential units (flats and townhouses) and nine studios for artists and craftspeople. Wolff/Yon also was named developer of Main Street North, a section containing 14 residential units (one- and two-bedroom flats) and about 27,000 square feet (3,500 square meters) of commercial space. The Affordable Housing Alliance, a nonprofit group dedicated to providing homeownership opportunities, was chosen to develop Northern Lights—a duo-penthouse carriage houses units built with sweat equity and volunteer labor. Peak Properties and Development Corporation built the 55-unit Garden Crossing project and Rockry 65 eight townhouse/duplex units with roof gardens. Wonderland Hill Development Company was tapped for the 34-unit Wild Sage Cohousing project.

Green Design and Construction

While all of the individual projects at Holiday Neighborhood are sustainably designed and constructed, the design and construction of the 1.5-acre (.6-hectare) Wild Sage Cohousing project represents an unusual model for sustainable communities: environmentally sound practices driven by a participatory process. Wonderland President Jim Leach likens his company’s tiered decision-making process, which involves future residents in the planning, design, and development through a series of workshops, to “building custom homes—only we are building custom neighborhoods.” While the process involves challenges and frustrations, the importance of cohousing, he believes, lies in the fact that it “demonstrates the value of community.”
The fees potential residents paid to attend Wild Sage workshops were later applied to the purchase price of their homes. The design workshops paid particular attention to the development’s exterior spaces and circulation patterns. The back doors of most units open onto small patios, which in turn open onto paths that lead to the central courtyard facing the common house. Garages and parking spaces are located at the edge of the community to encourage informal interaction among residents. Likewise, the common house’s location at the center of the community encourages residents to gather there and on the green space around it.

Wild Sage contains seven different unit types, ranging from 685-square-foot (64-square-meter), single-level carriage houses above garages to 2,712-square-foot (252-square-meter), three-level end units. All units are attached, sharing one or two common walls. Market-rate, affordable, and Habitat for Humanity–built homes are mixed throughout the project, and the affordable units are indistinguishable from the market-rate homes. Two of the seven unit types were available to all three economic groups, one was developed for both affordable-housing and market-rate purchasers, and the remaining four were developed solely as market-rate units. The construction budget for the residential space was $85 per square foot ($915 per square meter).

From the beginning, architect Jim Logan stated his intention to exceed Boulder Green Points Building Program requirements and to make every practical effort to limit Wild Sage’s consumption of fossil fuels. The primary aspect of the green strategy at Wild Sage is energy efficiency and sustainability. Clustering and downsizing housing units create a great deal of energy efficiency. Future residents agreed early on that solar energy was an important goal, and reached consensus that the community would not use forced-air heating or central air conditioning. Although the design team initially explored the use of alternative energy sources such as fuel cells, microturbines, and photovoltaic panels, the team ultimately settled on a more traditional system that will be converted to an active solar system in the future.

Each of the project’s eight buildings is preplumbed for radiant solar heating and has a single hydronic boiler, mechanical heating system run by a central, high-efficiency boiler that is zoned by unit. Each mechanical room sits atop an open space that can be used to store hot water from the active solar system. The community began installing donated, used solar panels on two seven-unit buildings in mid-2006; savings from this system will be invested in an account that will eventually pay for the installation of solar panels on the remaining buildings.

All exterior walls are insulated with 100 percent recycled wet-blown cellulose and covered with durable fiber cement siding. Roofs are insulated with 850 insulation, and all flat roofs—designed to hold solar panels—are covered with a white single-ply membrane, which reduces the urban heat-island effect. Wild Sage uses approximately 40 to 60 percent as much energy as a comparable housing project.

Innovative stormwater management techniques also contribute to Wild Sage’s sustainability. Low-impact development techniques are geared toward infiltration rather than removal. Roof runoff is directed to shallow, vegetated trenches or swales, where it irrigates ornamental and edible plantings and gradually infiltrates an underlying sand bed, reducing both the need for supplemental watering and the amount of pollution in runoff.

Marketing and Management

The marketing process began with an exercise to come up with a name and an identity for the site. BHP gathered all of its development partners to discuss this issue, and found—at first—a wide range of opinions. Eventually, the group agreed on Holiday Neighborhood. The landmark Holiday Drive-in Theater sign offered one way to reinforce this name and identity, but BHP was careful to avoid using any type styles or graphics in its marketing materials that might be confused with the Holiday Inn motels chain. All of the development partners then selected names for their own individual projects.

BHP managed a coordinated marketing process for Holiday Neighborhood, and each of the development partners contributed to the marketing budget. BHP created a marketing brochure/folder into which it placed informational cut sheets; each development partner then added its own materials for its specific marketing purposes.

The Holiday Neighborhood Master Association governs the community. BHP formed and wrote the CC&Rs for the association, which first convened in December 2004, and the association’s board of directors originally consisted of three BHP staff members. As occupancy benchmarks were met, their seats on the board were turned over to elected residents. The first two resident members were elected at the association’s first meeting and a resident replaced the last BHP employee in February 2006. Each project at Holiday Neighborhood also has its own homeowners association.

Experience Gained

BHP and its development partners learned a variety of lessons in the development, design, construction, and marketing of Holiday Neighborhood:

- In order to accomplish community goals, a project leader must be dedicated to the public good. BHP was willing to sell the land at a discount, accept a lower financial return, and charge a lower development fee than most private sector developers could have done. Even so, difficult decisions and tradeoffs were required. At Holiday Neighborhood, innovative water treatment strategies affected the size and usability of the park. Likewise, the size of the community garden shrunk, as developers needed more land co either side of it to squeeze in additional affordable units. And BHP
Holiday Neighborhood

**LAND USE INFORMATION**

| Total site area (acres/hectares) | 2729/1104 |
| Total number of dwelling units | 334 |
| Gross residential density (units per gross residential acre/hectare) | 30/21 |
| Average net residential density (acres/hectares) | 49/20 |
| Total commercial space (sq ft/sq m) | 693-2,772/64-252 |
| Z Park (garage units and single-family homes) | 56-227

**LAND USE PLAN**

<table>
<thead>
<tr>
<th>Acres/Hectares</th>
<th>Percentage of Site</th>
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<tbody>
<tr>
<td>Residential</td>
<td>13,725.55/5.0</td>
</tr>
<tr>
<td>Mixed use*</td>
<td>2,700.09/10</td>
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<tr>
<td>Commercial**</td>
<td>0.800.32/3</td>
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<tr>
<td>Roads/parking</td>
<td>3.33/3.37</td>
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<tr>
<td>Open space</td>
<td>1,740.71/6**</td>
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*Ground-floor commercial use with residents above.
**Commercial space along North Broadway only.
***City park only; small green space is incorporated into other land uses throughout the site.

**BEST DENTAL UNIT INFORMATION**

<table>
<thead>
<tr>
<th>Project</th>
<th>Unit Size (sq ft/sq m)</th>
<th>Number of Units</th>
<th>Range of Initial Sales Prices</th>
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<tbody>
<tr>
<td>Black 6 (townhouses and duplex)</td>
<td>1,200-2,100/112-195</td>
<td>8</td>
<td>$140,000-$450,000</td>
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<tr>
<td>The Creston (condominium apartments)</td>
<td>803-1,399/75-146</td>
<td>40</td>
<td>$129,000-$625,000</td>
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<td>Emergency Family Assistance Association (three-bedroom townhome)</td>
<td>1,100/102</td>
<td>3</td>
<td>NA</td>
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<tr>
<td>Garden Crossing (one-bedroom carage units)</td>
<td>660-662/61-151</td>
<td>55</td>
<td>$110,000-$310,180</td>
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<td>Holiday Squares (house-style condominiums in duplex buildings)</td>
<td>960-1,040/89-97</td>
<td>8</td>
<td>$145,000-$409,000</td>
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<tr>
<td>Main Street North (two- and three-bedroom flats)</td>
<td>620-940/58-87</td>
<td>14</td>
<td>$365,000-$270,000</td>
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<td>North Court (three-bedroom flats and three-bedroom townhouses)</td>
<td>770-1,340/72-125</td>
<td>68</td>
<td>$304,000-$505,000</td>
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<td>Northern Lights (one-bedroom carage units)</td>
<td>720-1,247/67-116</td>
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<td>$302,000-$169,000</td>
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<td>Northstar Place (townhouses and loft-style condominiums)</td>
<td>847-1,450/79-135</td>
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<td>Studio Mews (lofts and loft-style condominiums)</td>
<td>580-1,124/54-104</td>
<td>32</td>
<td>$302,000-$138,000</td>
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<td>Wild Sage Cohousing (one-bedroom carage units)</td>
<td>693-2,772/64-252</td>
<td>34</td>
<td>$349,000-$759,000</td>
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<tr>
<td>Pikes Peak Homeowners Association (single-family homes)</td>
<td>56-227</td>
<td>25</td>
<td>$345,000-$759,000</td>
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**DEVELOPMENT COST INFORMATION**

- Site acquisition cost: $4,756,000
- Site improvement and infrastructure construction costs: $255,000
- Utilities: $2,956,679
- Fees/general conditions: $140,891
- Offsite improvements: $372,763
- Total cost development: $5,379,739

**DEVELOPMENT SCHEDULE**

- Site acquisition: March 1997
- Planning started: Fall 1998
- Infrastructure construction started: 2003
- Residential sales started: February 2004
- Residential leasing started: May 2004
- Commercial leasing started: Early 2003
- Estimated project completion: Early 2008

**DEVELOPMENT TEAM**

- Master Site Developer: Boulder Housing Partners
- Boulder, Colorado
- BoulderHousing.org
- www.cuboulderdevelopment.com

- Development Partners:
  - Peak Properties & Development
  - Garden Crossing and Black Box
  - Boulder, Colorado
  - www.peekproperties.com

- Affordable Housing Alliance (Northern Lights)
- Boulder, Colorado
- www.ahb.org/projects/northernlights.html

- Colburn Development
  - (The Creston, Northern Place, Studio Mews, and 2 Park)
  - Boulder, Colorado
  - www.cuboulderdevelopment.com

- Welder Hill Development Company
  - (Wild Sage Cohousing)
  - Boulder, Colorado
  - www.cuboulderdevelopment.com

- Wolff Lyon Architects
  - (Main St. North and North Courtyards)
  - Boulder, Colorado
  - www.wolfflyonarchitects.com

- Master Site Planner
  - Barrett Studio Architects
  - Boulder, Colorado
  - www.barrettstudio.com